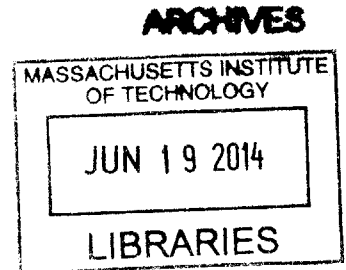


Managing Growth In The Knowledge Economy:  
*Lessons from the Bust and Boom of San Francisco's Technology Industry*

By

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Submitted to the Department of Urban Studies and Planning  
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# **Managing Growth in the Knowledge Economy**

## **Lessons from the Bust and Boom of San Francisco's Technology Industry**

**Laurel Donaldson**

Submitted to the Department of Urban Studies and Planning  
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### **ABSTRACT**

Municipal policy-makers have embraced the promise of the innovation-based “Next Economy” as the latest policy prescription for growth. However, recent evidence suggests that the agglomeration of high-skill, high-wage industries is associated with increased socioeconomic divergence and pressures on the urban land market. This thesis focuses on San Francisco, as a city that is increasingly divided by the dividends of its own growth. This thesis asks, given what we know of the past dotcom trajectory, what can the City of San Francisco learn about managing rapid economic

development in an era of hyper capital mobility, with the goal of protecting vulnerable populations in the housing market, preserving diversity, and promoting a broader distribution of prosperity in the future? Using the recent Central Market Payroll Tax Exclusion program as a point of departure, I show how short-term wins can distort a city's valuation of longer-term social goals, and in so doing, I highlight the need to address growth management from a longer-term perspective of economic resilience.

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**Table of Contents**

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<b>Chapter 01 Introduction</b> .....	6 – 15
1.1 Parsing the Issue	
1.2 Case Study: San Francisco and the Mid-Market District	
1.3 Research Question, Methods, Report Structure	
<b>Chapter 02 The High Tech City</b> .....	16 - 25
2.1 The Promise of the “Next Economy”	
2.2 Dissenting Voices and Value Judgments	
2.3 Learning from the Innovation and Inequality Debate	
<b>Chapter 03 At the Vanguard of a New Gold Rush</b> .....	26 - 32
3.1 San Francisco’s Web 2.0 Boom	
3.2 Fast Economic Development	
3.3 History Repeats Itself	
<b>Chapter 04 The Twitter Taxbreak</b> .....	33 - 45
4.1 The Central Market Payroll Tax Exclusion Policy	
4.2 Cost of Engagement	
4.3 Social and Economic Footprint	
4.5 Key Conclusions	
<b>Chapter 05 Lessons From The Dotcom Era</b> .....	46 - 60
5.1 Legacy Forces in Economic Development History	
5.2 Dotcom Boom and Bust	
5.3 San Francisco in the Storm	
5.4 Implications for Managing Risk	
<b>Chapter 06 Managing Growth For Resilience</b> .....	61 – 69
6.1 An Economic Resilience Framework	
6.2 Taking Inventory of Rigidities in the Housing Market	
6.3 Discounting Risk in Policy Analysis	
<b>Chapter 07 Conclusion</b> .....	70 – 80
7.1 Political Wins and Enduring Problems	
7.2 Policy Recommendations and Future Options	
7.3 Innovation for a Broader Public	
<b>APPENDIX</b> .....	81 - 93



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## Chapter 1.

# INTRODUCTION

As America struggles to restructure and redefine its economy in a new competitive era, municipal policymakers have increasingly embraced the promise of high-tech industries and the “knowledge-driven economy” as a path toward recovery and growth. Abiding this trend, local technology clusters and innovation districts have proliferated in cities across America, shepherded by public incentives intended to seed agglomeration and accelerate the production of knowledge (Moretti, 2012). Today we routinely encounter the announcement of the next urban “hub” in hot sectors such as biotech, advanced manufacturing, and “Web 2.0” media (Glaeser, 2011).

And yet, the performance of urban innovation-based economic development strategies at the local level remain uncertain, and many express concerns regarding the distributional consequences of these policies on workforce segregation (Martin, 2009; Glaeser, 2011). From a regional perspective, planners and policy-makers often point to data suggesting the “broad benefits” that high-skill, high-wage sectors confer to the rest of society in the form of secondary job creation and associated multiplier effects. It is commonly cited that one technology job leads to four additional jobs elsewhere in the regional economy.<sup>1</sup> But, as critical demographers like Kotkin and Malanga have highlighted, this argument fails to consider the geography, security and future mobility of these

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<sup>1</sup> Moretti, Enrico. *The New Geography of Jobs*. Boston: Houghton Mifflin Harcourt, 2012.

purported opportunities (K2004). Ted Egan, Chief Economist for the City of San Francisco, has further found that the tech industry multiplier varies across places, and that the spillover effect is a more modest *two* additional jobs in the Bay Area.

The search for space in tight urban land markets like San Francisco and New York has further led to the movement of high-growth firms into marginal spaces in the urban core, creating issues around the “restructuring of urban space” (Smith, 1986) and the “spatial mismatch” of new job opportunities (Kain, 1968). Meanwhile, little attention has been paid to the sustainability of this growth, and risks to the system if and when these industries cool, and real estate markets contract. In short, a new era of economic policy raises many new questions. Is this development a continuation of common, older forms of industrial expansion, or does it represent a new socio-spatial process? What risks are associated? How can policymakers manage growth for more sustainable and equitable outcomes? I explore these inquires through the lens of San Francisco, as one of the nation’s leading information communication technology hubs, with a legacy of cyclical growth in technology industries, and an acute manifestation of the challenges associated knowledge-sector agglomeration nationwide.

Evaluating the city’s experience during the dotcom era, I look at what can be learned from San Francisco’s history. I assess the growth trajectory of these industries in the past, as it sheds light on the risks and challenges that may face the city the future. I ultimately argue that the current paradigm of innovation-based economic development is shortsighted. Beyond complicated debates over gentrification, there is little attention paid to whether cities are balancing incentives for employment growth with the appropriate housing ratios to accommodate it. Further, lopsided urban development founded on volatile industries, which have the power to catalyze rapid growth and distort basic market conditions, also require a consideration of long-term resilience and income equality. This research will conclude with a conceptual framework for policy-making based on the concept of economic resilience, and will provide supporting policy recommendations.



## 1.1 Parsing the Issue

San Francisco is an extreme case of the current ‘tech hustle.’ However, the forces that are restructuring the local economy and land market are also active in other “knowledge sector” cities. The pressure on urban space markets in America is increasing. People, jobs and commerce are increasingly concentrating in cities, in a well-known trend that Alan Ehrenhalt has called the “Great Inversion.”<sup>2</sup> As Mayor Rahm Emmanuel said in a recent talk at the Massachusetts Institute of Technology Scaling Infrastructures conference, “Thirty years ago urban density was the liability of cities, today it is our strategic advantage.” Several researchers have heralded the recent rise of high tech business clusters within the urban core, as an expression and byproduct of this trend. Today, well-known urban “innovation” hubs can be found in San Francisco, Austin, New York, Boston, Portland, Washington D.C. and Seattle.

It is commonly thought that an urban environment drives innovation by virtue of its density, diversity and tolerance. And yet, ironically, the demographic of the Information Communication Technology workforce is notoriously homogenous in race and gender, and the infusion of wealth associated with these industries threatens to reduce racial and socioeconomic diversity in tight metropolitan housing markets.<sup>3</sup>

Local government has played a central role in financing, branding, and otherwise incentivizing the agglomeration of these industries, as the latest policy prescription for growth. President Obama recently committed over \$200 million dollars to a nationwide “Regional Innovation Cluster Initiative,” across 56 regions and 15 states. In New York, former mayor Michael Bloomberg has committed \$100 million dollars to fund a new Applied Sciences technology campus on Roosevelt Island. In San Francisco, tax credits for clean-tech and biotech in Mission Bay, and district-oriented policies in the Mid Market, will have cost the

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<sup>2</sup> Ehrenhalt, Alan. *The Great Inversion and the Future of the American City*, 2010.

<sup>3</sup> According to Dual City, the demographic of the Tech Workforce in San Francisco is 69% male and 72% white in 2014. Retrieved From: <http://www.dualcitysf.com/>.

city an estimated \$56 million dollars in 2017.<sup>4</sup> In other cities, investments in new infrastructure upgrades, business incubators, and local retail development have also been used to buttress and attract creative technology-based firms. In short, public capital is pouring into this new vision of the “Next Economy.”

In a metropolitan context, a pivotal question arises about whether new innovation district strategies and other high-tech incentives are truly geared toward local economic development (in the form of job creation), or cruder targets for urban development (motivated by municipal gains in property tax revenue and new construction.) Albert Ratner, chairman of Forest City Enterprises, has famously said of Richard Florida’s Creative Class theory, “You have given real estate developers the playbook.” Jamie Peck similarly critiqued Richard Florida’s theory as being a “*fast policy script*” for development, which “*shows little concern for those not in occupations or life situations that give them spatial mobility*” (2005). As urban innovation strategies continue to employ Creative Class memes of amenity-driven development, critics claim that the incentives for developers and implications for gentrification are analogous.

Meanwhile, across the nation and the globe, skill-biased technological change, economic restructuring, and labor substitution are contributing to the rise of income inequality, with the accumulation of wealth in the hands of a small minority. There is popular support for the notion that the ‘knowledge-driven economy’ will create spillover benefits for all, but urban inequality continues to rise, and evidence suggests that it is disproportionately severe in ‘creative’ and ‘tech’ hub cities. Michael Storper and Allen Scott (2009) summarize the manifestation of these national trends at the local level. They write:

*The emerging New Economy in major cities has been associated with a deepening divide between a privileged upper stratum of professional, managerial, scientific, technical and other highly qualified workers on the one side, and a mass of low-wage workers—often immigrant and undocumented—on the other side. The latter are not simply a minor side effect of the new economy or an accidental adjunct to the creative class. Rather, high-wage and low-wage workers are strongly complementary to one another in*

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<sup>4</sup> “Interview with James Temple.” Personal Interview. May 2014.

*the new economy.*<sup>5</sup>

Others studies have similarly found that, “The sad truth is, in cities like New York and San Francisco, the emphasis on ‘hip cool’ and high-end service industries has corresponded with a decline in their middle class and a growing gap between rich and poor... *particularly once cost of living is figured in.*”<sup>6</sup> Mostly recently, Jed Kolko, chief economist for Trulia, published a report showing that America’s top “tech hubs” exhibit the highest levels of both income inequality and housing price appreciation, compared to the 90 other U.S. metros.<sup>7</sup> Based on US Census Data, he finds that, “*home prices are 82 percent higher in’ tech hubs’ than in other large metros, and... rents are rising twice as fast in tech hubs.*”<sup>8</sup> Non-tech metros experienced an average 3.3 percent increase over 2013, while San Francisco experienced a 12.3 percent increase, and a median rent of \$3,350. In other words, the fight for space in “21<sup>st</sup> century” cities is driving up residential and commercial real estate prices, a trend that threatens to crowd out diversity and push low- and middle-income families further from the central nodes of urban growth. This also coincides with a broader wave of gentrification, taking place across the country (Kenney, 2009).

Present-day problems are compounded by liabilities for the future. In an era of hyper capital mobility, city’s need to prepare for the conditions of fast economic development, with specific provisions to protect a city’s diversity, its middle-income employment opportunities, and its affordability. The toolkits of municipal planning and development departments are limited. Land-based enhancements and firm-level subsidies are the simplest tools for chasing the ‘golden goose’ of innovation industry. However, these policies have not been reliably paired with provisions to build capacity in the local workforce, distribute the benefits of development, or address new pressures on the housing market. I argue that more holistic policy-making is needed on the front end, to manage

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<sup>5</sup> Flew, Terry. “Toward A Cultural Economic Geography.” *The Information Society* 25.3 (2010): 85-91.

<sup>6</sup> Kotkin, Joel. “Richard Florida Concedes the Limits of the Creative Class.” *The Daily Beast*. Newsweek/Daily Beast. n.d. Web. 23 May 2014

<sup>7</sup> Kolko, Jed. “Housing Affordability in Major Tech Metros.” *Trulia, Research Reports* (2013).

<sup>8</sup> *Ibid.*

market conditions in the run up of growth, and to focus attention toward urban futures beyond the short-term political cycle.

## **1.2 Case Study: San Francisco and the Tenderloin Tech District**

This report focuses on the case of San Francisco, with particular attention to the Central Market Payroll Tax Exclusion policy, which helped incentivize the move of a multi-billion dollar social media company into one of the city's poorest neighborhoods in 2011. San Francisco is currently in the middle of its second "tech boom." The city is considered to be the largest Information Communication Technology hub in the nation, and offers a unique window into the effects of high-tech agglomeration and high-skill talent migration on a tight land market city. Although entrepreneurial tech clusters are widespread, I focus on San Francisco and the recent "Web 2.0 cluster" in the Tenderloin as an iconic, if extreme, example of the impact of "Next Economy" development strategies on (a) the quality and character of employment growth, (b) real estate demand, and (c) a city's economic resilience in the face of rapid change.

As a whole, this research can be seen an entry point into a broader investigation of the *benefits and liabilities* associated with innovation-based economic development policy in 2014, and the appropriate role of government in seeding and managing knowledge-driven growth.

## **1.3 Research Question**

This research is intended to inform future public policy in San Francisco, under its current development regime. It seeks to answer the following question: *Given what we know of the past dotcom trajectory, what can the City of San Francisco learn about managing rapid tech-industry driven growth, with the goal of preserving diversity, protecting vulnerable residents in the present environment, and promoting a broader distribution of prosperity in the future?* Three supplementary questions are posed in order to fully address this research topic.

1. Based on the dotcom boom and bust, what was learned about the growth trajectory of web-based technology industries, specific to San Francisco?
2. How sustainable is this form of growth, how does it distort baseline conditions in the market, and what are its longer-term consequences? What policy tools can be used to ensure the city's *economic resilience* when the tech boom inevitably slows, or busts?
3. What are the trade-offs inherent to this form of 21<sup>st</sup> century growth? Is this a new socio-spatial process, and if so, what provisions are needed to encourage more equitable outcomes?

## **1.4 Research Methods**

To investigate this topic, I have taken a research approach that combines several sources of information, drawing on in-depth interviews, historical documents, policy research, and primary and secondary quantitative data analysis on employment trends and migratory flows in the San Francisco labor market. Although I focus on San Francisco as my primary case study, I also reference comparative statistics and storylines from cities pursuing comparable policies.

### ***Interviews***

I spent the month of January working as a consultant in San Francisco, assessing the City's new Living Innovation Zone public space initiative. During this time, I conducted interviews with Neil Hurshowy, Director of the San Francisco Planning Department, Jason Klein, Director of the Office of Economic and Workforce Development, Egon Terplan, Policy Director at SPUR, Shannon Spanheke, Director of the San Francisco Civic Innovation Department. I also conducted phone interviews with Libby Seiffel, Teresa Lynch, Paula Collins, Winston Elon, and Tom Consonetti, in addition to a handful of start-up founders, and several public officials and developers in New York City. The latter are not formally included in the analysis, but they provided valuable insights to contextualize my research. These conversations were supplemented by

observational research in the field, most notably during a Google Bus protest, and an extensive survey of San Francisco news coverage.

### ***Background Trend Analysis & Secondary Statistics***

To supplement my qualitative research, I have collected and analyzed secondary data on the industrial and occupational structure of San Francisco's economy, the scale and growth of the technology sector, and shifts in its regional distribution over time, from 1997 to the present. I also analyzed relevant statistics on the housing and office market, comparing conditions in 2000, 2003, and today.

For these analyses, I use three primary data sources, the American Community Survey 1-year estimates, the Bureau of Labor Statistics *Quarterly Workforce Indicators*, Reference USA, and the U.S. Census *Local Economic Dynamics*. I also draw on secondary sources from the San Francisco Planning Department, SF Office of the Comptroller, Trulia and the Bay Area Council.

## **1.5 Report Structure**

The next chapter of the thesis is devoted to clarifying the economic forces associated with the acceleration of knowledge-based sectors nationwide. I look at how these trends are manifested at the local level, in 'high-skill' cities across the country, and the tension between the "innovation" and "opportunity" agendas.

In Chapters 3 and 4, I introduce San Francisco as my primary case study. I examine the social and economic repercussions of the latest Web 2.0 tech boom, and identify a contradiction between policies intended to grease vs. control growth in the city. Using the recent Central Market Payroll Tax Exclusion program as a point of departure, I show how short-term wins can also distort a city's valuation of longer-term social goals, in the form of diversity and affordable housing. In so doing, I highlight the risks that San Francisco and other cities face under the conditions of the Next Economy.

In Chapters 5 and 6, I draw a comparison between the city's current tech boom and the dotcom era—both its development and decline. I analyze the growth trajectory of the early Internet industries in the Bay Area, and assess the

costs born by San Francisco during the crash. Supported by a history of economic policy in the region, I argue that the City needs a better strategy to manage “rapid economic development” and its associated risks—as capital becomes increasingly mobile and space markets increasingly crowded; and as coveted information industries once again build wealth off ephemeral products that are priced on network value rather than cash flow. Finally, I propose a basic framework for managing growth from the perspective of *economic resilience*, as one way to shape present and future policy-making.

I conclude by providing preliminary recommendations for San Francisco’s administration, advocating for the preservation of diversity as one vital characteristic of a resilient city.

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## Chapter 2.

# THE HIGH-TECH CITY

### What Is meant by the High-Tech Sector?

The “High-Tech” sector traditionally refers a set of industries in the knowledge services and advanced manufacturing sectors, including Information Technology, Design and Software Publishing, Corporate and Business Management, Professional Services, Scientific Research and Development, and Manufacturing in Biotech, Semiconductors, Computer Hardware. It is notably that the Advanced Manufacturing, Life Sciences and Clean-tech sectors have a slightly different cultural and spatial footprint than the web-based Information Communication Technology, Design and Software sectors.

### 2.1 The Promise of “Next Economy”

The primary claim of economists and policy analysts promoting innovation industries, commonly referred to as the “Next Economy”, is that export-oriented, technology-based sectors benefit regional economies and revitalize urban districts by circulating capital and creating jobs that purportedly “pay well for workers at a variety of skill levels.” In a recent book called *The New Geography of Jobs*, UC Berkeley economist Enrico Moretti writes that, “*The presence of many college-educated residents changes the local economy in profound ways, affecting both the kinds of jobs available and the productivity of every worker who lives there, including the less skilled.*” His basic thesis is that innovative industries not only bring “good jobs” and high salaries to a city, but also that a well-educated and well-paid “innovation workforce” place a myriad of



demands in the marketplace, for doctors, baristas, lawyers, taxis, stockbrokers, and restaurants. A recent report on “Tech as a Pathway Jobs,” published by the San Francisco Bay Area Council, estimates that *“the creation of one job in the high-tech sector of a region is associated with the creation of 4.3 additional jobs in the local goods and services economy of the same region in the long run. That is more than three times the local multiplier for manufacturing, which at 1.4, is still quite high.”*<sup>9</sup>

A recent report from the Ewig Marion Kauffman Foundation also supports the popular conclusion that high-tech startups are a key driver of job creation throughout the United States. *“Though they start lean,”* the report states, *“new high-tech companies grow rapidly in the early years, adding thousands of jobs along the way.”* Comparing high-tech business and job creation dynamics to the entire U.S. private sector<sup>10</sup>, they find that high-tech is 23 percent more likely than the private sector as a whole to witness a new business formation.<sup>11</sup> Further, Information Communication Technology (ICT) as a segment of tech is found to be 48 percent more likely to witness new business creation (ibid). Succinctly put by Mark Munro, the takeaway for policy-makers is: “One of the best ways for a city or state to generate jobs for less-skilled workers is to develop and attract high-tech companies that hire highly skilled ones.”

The Brookings Institution’s Metropolitan Policy Program has been one of the most active champions of the promising “Next Economy”—operationalized in the form of urban “Innovation District” strategies that many policy consultants, researchers and city managers have aggressively promoted. Bruce Katz defines an *Innovation District* as a *“21st century economy-shaping strategy that connects and clusters innovation-generating anchor institutions and companies with entrepreneurial firms, infrastructure, housing, retail and urban amenities.”*<sup>12</sup> Others have also added that, in addition to job growth, these districts have been

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<sup>9</sup> Donohue, B. (2007). “A+ Certification: A Pathway to Good Jobs for Low Income People?” FutureWorks.

<sup>10</sup> Defined as the group of industries with very high shares of employees in the STEM fields of science, technology, engineering and math.

<sup>11</sup> Hathaway, Ian. “Tech Starts: High-Technology Business Formation and Job Creation in the United States.” *Kauffman Foundation Research Series: Firm Formation and Economic Growth*. (August 2013.)

<sup>12</sup> The Brookings Institution. “Big Idea 2014: Goodbye Silicon Valley, Hello Silicon Cities.” Web. 30 December 2013.

used to fuel urban redevelopment and neighborhood revitalization in targeted locations (Sharma, 2012). These strategies are framed in contrast to former competitive efforts to bid for the next “big-box store or industrial park,” and promise gains in the form of new exports, patents, low-carbon products and processes, and new industrial clusters.<sup>13</sup>

Innovation district strategies are associated with classic academic cluster theory, which has been cited as one of the most popular supply-side strategies for economic competitiveness worldwide, typically applied at the regional level (Malmberg and Miscall, 2002; Martin and Sunly, 2003; Matthews, 2010). Marshall’s seminal agglomeration theory frames the advantages of “clustered” economic organization in terms of access to external economies, social embeddedness, diffusion and sharing of knowledge, concentration of skilled human resources, and economic diversity (Aoki, 2010). Knowledge spillovers, defined as geographic or relational, are also cited as one of the most important externalities driving innovation. It is unclear whether the localized agglomeration of tech-based firms in a neighborhood “district” truly constitutes an industrial “cluster,” with its associated productivity gains, given their local scale and common focus on a single industry (Smith, 2011). Nevertheless, the branding operations and policy structures that promote these districts are widely-distributed and well-funded.

Enabling policies typically include targeted workforce development, export promotion, specialized infrastructure investments, research initiatives and university partnerships. Beyond these traditional initiatives, municipal support for the “innovation economy” is also often characterized by new mixed-use development and capital investments in business incubators, accelerators, and the cultural amenities that form the ‘soft infrastructure’ of the creative milieu. The local San Francisco non-profit, SPUR, claims that “*today, cities everywhere are striving to rebrand themselves and improve their offerings in the realms of art,*

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<sup>13</sup> Katz, Bruce & Bradley, Jen. “Lessons from the Road: The Metropolitan Revolution 2014.” The Brookings Institution. Web. 7 January 2014. Retrieved from: <http://www.brookings.edu/blogs/the-avenue/posts/2014/01/07-metropolitan-revolution-lessons-katz-bradley>.

*food, nightlife, walkability and cultural tolerance, all the urban amenities that attract the mobile, highly educated workforce that makes it attractive for knowledge-based industries to invest in those communities.”*

These human capital strategies, strongly influenced by Richard Florida, Robert Lucas, and other theorists of the 20<sup>th</sup> century, are based on the now ‘conventional wisdom’ that “highly mobile capital and talent will flow to locations that offer the richest amenities and highest quality of life.” As cities continue to court highly-skilled workers as consumers of *place*, shifting public capital toward new amenities above other budget items like education or social services, other parts of society share a sense of exclusion.<sup>14</sup> For cities that succeed in attracting a diverse range of high-growth industries, the information and knowledge service sectors are still much less labor-intensive than the top industries of the past. The lion’s share of job creation must therefore come from ancillary industries, often concentrated in lower-wage service sectors.<sup>15</sup> In conjunction with the widespread gentrification taking place across American cities, which further constrains the “geography of opportunity,” a less optimistic picture of the smart city emerges.

## **2.2 Dissenting Voices and Value Judgments**

Increasing high-tech hype has generated its fair share of skeptics. Critics primarily point to the limited *direct* job opportunities available in targeted sectors, the increasing segregation of the low and high-wage labor force in knowledge-driven cities, and the strain that new wealth-generating classes place on the housing urban market. Academic studies have shown that many of the efforts to recreate the Silicon Valley model appear to have failed, and across the spectrum, it remains inconclusive how effective development efforts have been in actually

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<sup>14</sup> “Interview with Libby Seiffel.” Personal Interview. February 2014.

<sup>15</sup> Mason, Edward. “Knowledge Economy is Leaving Some Behind” *Boston Globe*. 20 October 2013. Web.

creating jobs and increasing metropolitan GDP (Currid-Halkett, 2011).<sup>16</sup>

Critics also raise three primary issues with the rationale behind urban innovation-based economic development policies: (1) the real multiplier benefits of tech-based industries vary across places, and also produce a disproportionate number of low-wage, low-quality jobs, (2) cookie-cutter prescriptions for innovation districts ignore the natural assets of places, and fail to leverage existing competitive strengths, and (3) high-wage workers push up real estate prices, and make the city less affordable for everyone.

These debates connect to a larger national debate regarding the equity implications of the knowledge-driven economy. Stanford University Professor Gerald Hund describes, *“The larger context here is that changes in the U.S. economy have created an increasingly specialized workforce, and the infusion of new technologies such as computer software has played to the strengths of highly educated workers. Supply used to keep up with this extra demand for education, but there are signs it is faltering.”* A recent study from the Center for Labor Studies<sup>17</sup> has specifically shown that “limited education leads to greater disadvantages in terms of income and employment in the knowledge-based economy.”<sup>18</sup>

Many scholars have documented the inexorable rise in inequality in American over the past 40 years, as the labor market becomes divided between highly paid, high-skill knowledge jobs and much more lower paid and lower skill service jobs. Despite the New Economy mantra lauding the rise of Internet pioneers and network engineers, part of the reality of this changing labor market is an accompanying increase in low-end jobs, accompanied by the emergence of a two-tier system of amenities and services. Manuel Castells describes this dimension of the Information Age as the creation of a “fourth world” in society, encompassing all of those *“who are irrelevant to the networked operations of*

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<sup>16</sup> Currid-Halkett, E., & Stolarick, K. (2011). The Great Divide: Economic Development Theory Vs. Practice: A Survey of the Current Landscape. *Economic Development Quarterly*, 25(2), 143 - 157.

<sup>17</sup> Sum, Andrew. “The Labor Market Problems of Massachusetts Residents in the Recovery from the Great Recession – The Great Socioeconomic Divergence.” *Center for Labor Studies, Northeastern University*. October 2013.

<sup>18</sup> In Massachusetts, 55 percent of workers with less than a high school diploma and living in households with annual incomes of less than \$20,000 were unemployed or underemployed. This is compared to 3 percent unemployment among workers with a master’s degree and from households earning more than \$150,000 a year.

*informational capitalism, such as unskilled workers and people living in areas of social exclusion such as the inner-city ghettos of the United States.”<sup>19</sup>*

In an interview with Harry Kreisler at UC Berkeley, Castells explains that the “fourth world” describes a structural exclusion in the new world order, where “the demands of flexibility and employment on a short-term basis result in the slippage of the socially disadvantaged into the fourth world.” In Kreisler’s summary, he concludes that this problem affects the many traditional laborers unable to respond to rapid changes in the global marketplace, but it also afflicts the stockholder ‘who doesn’t use current information to track his investments.’ Castells further states in the interview (2012),

*“Social exclusion is the penalty of a belated response to informational change, and although such exclusion is not a new phenomenon, its normalization under the present system now appears to be permanent... You can exclude in terms of the access to the network, the digital divide. But you can also exclude in terms of the culture and education and ability to process all this information that has happened on the net, and then use it for what you want to do, because you don't have the education, the training, the culture to do it, while the elites of the world do.”<sup>20</sup>*

In addition to the effects of skills-biased technological change, economists identify loss of industrial employment, the dismantling of the welfare state in the 1980s, and *uneven productivity gains from technological progress* as contributing factors to rising inequality. This conversation is also inflected by the larger debate about whether there is currently a shortage of *skills* or a shortage of *jobs* in America. In popular estimation, the U.S. recovery has slowed because employers can’t find workers with the necessary skills to fill job vacancies. In promoting high-tech and knowledge-driven industries, some planners and policy-makers have tried to correct for this by instituting workforce development and training programs for lower-skill positions in IT and computer repair, for example. However, research by Jonathan Rothwell at the Brookings Institution, finds no evidence to support the ‘skills gap’ argument. Looking at the relationship between

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<sup>19</sup> Harry, Kreisler. "Conclusions." *Conversation with Manuel Castells*, P. 6 of 6. UC Berkeley Globetrotter, n.d. Web. 23 May 2014.

<sup>20</sup> Kreisler & Castells, 2014. Ibid.

national skill levels and the mismatch between labor supply and demand, he concludes that there simply *aren't enough job openings ("far too few") for less educated workers.*<sup>21</sup> Other experts further question the power of existing workforce development *frameworks* to deliver more equitable or inclusive outcomes in pace with population growth.

So, what is a planner to do? Can San Francisco continue to grow its competitive base without excluding the rest of its population, or extinguishing the diversity of its workforce? Economist Reuven Brenner echoes that similar secondary benefits are not uniform across urban contexts, and depend on the particular mix of sectors. ICT firms may create game-changing products, for example, but their procurement needs are largely limited to paper and catering. It is also notable that the commonly quoted tech multiplier is calculated at the regional level, and cannot be assumed to have the same proportional effect at the local level. Finally, if lower-wage workers can no longer afford to live San Francisco, new opportunities in the form of retail and service-sector jobs may be irrelevant to them.

The city's response will require very clever resource management, an aggressive stance on affordable and middle-income housing construction, the use of new federal tax instruments, and a commitment to diversity and a willingness to let some deals go by. Policy recommendations will be discussed in more depth in the last chapter. First, I look at what can be learned from the city's own history, and the outcomes from recent policy.

### **2.3 Learning from the Innovation-Inequality Debate**

These abstract critiques regarding the knowledge-driven economy have several important implications for San Francisco, which should inform policy. First, spillover benefits of the high-tech industry vary with place, and should be recalculated at the local level. The high cost of living and the price of commercial

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21 Rothwell, Jonathan. "Minding the Metro Education Gap." The Brookings Institution. Web. 29 August 2012. Retrieved from: <http://www.brookings.edu/blogs/the-avenue/posts/2012/08/29-jobs-education-rothwell>

rent in San Francisco may reduce the trickle-down benefits of increasing the tech workforce. Second, beyond the housing crisis, the lack of commercial rent control for businesses and non-profits means that current market conditions may threaten the livelihood of smaller and slower-growth establishments. Over time, this pressure could push other industries out of the city.

Much attention has been paid to the shortage of moderate-income housing options in the city. However, policy-makers should also consider the shortage of middle-class jobs, as an associated problem. Socioeconomic inequality in the city, which has risen since the start of the Web 2.0 craze, has been associated with tech-industry hubs nationwide, suggesting that the trend is likely to increase with further agglomeration. Several scholars have argued that inequality is bad for growth. The city also has a social interest and responsibility in creating a more equal society, by implementing more progressive policies around the minimum and living wage, ensuring health coverage, and increasing the affordable housing stock.

Champions of the Next Economy criticize former economic development strategies focused on consumption-driven growth models, which they characterize as “zero sum,” where “*a dollar spent (and taxed) or a house built (and taxed), or a business located (and taxed) in one jurisdiction was lost to any other. So, in metropolis after metropolis, jurisdictions competed against each other for sources of tax revenue, wasting scarce dollars on enticing businesses to move literally a few miles across artificial political borders.*” Bruce Katz further writes, “*The result is that metros prioritized short-term speculation over long-term growth and sustainable development. They did this until the bubble popped.*”<sup>22</sup>

San Francisco should be wary that its tech-driven policies do not inadvertently fall into the same category, with success based on “parochial measures of demand like *real estate appreciation, housing starts, new commercial square footage, and big-box store openings.*” (Ibid). Unfortunately, the City’s recent Central Market Payroll Tax Exclusion Policy, analyzed later in the report,

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<sup>22</sup> Ibid. Katz & Bradley. 2014.

largely falls into this category, as a competitive bid against the region. In the future, stronger regional governance structures should be pursued to mitigate the risk of these “race to the bottom” tactics.

Instead, analysts from the Metropolitan Policy Program suggest that the right indicators of growth and prosperity should be “*export orientation, migration patterns, industry clusters, innovative capacity and human capital.*”<sup>23</sup> In the future, the City should evaluate public investments in “innovation” based on these standards—and reassess its tactics if they do not produce similar results.

It is understood that budget constraints, particularly after the 2008 recession, continue to influence the City’s investment decisions—naturally favoring programs that serve immediate tax-service ratio needs over more sustainable, complex or equitable policies. Currid-Halkett further notes that economic development is a “long-game” endeavor, while politics are often “short-game,” which predisposes Cities toward pursuing high-impact ‘legacy-based’ programs, rather than subtle and embedded change.

The problem that I identify is, when a city invests only in these volatile high-skill industries, relying on the secondary consumption economy to distribute the gains, it does not engage in critical thinking, geared to the future or informed by the past, regarding (a) the quality of these jobs in the short-term and their sustainable in the long-term (b) the implications for housing affordability and how this affects the geography of opportunity and the profile of diversity.

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<sup>23</sup> Ibid.



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## Chapter 3.

# AT THE VANGUARD OF A NEW GOLD RUSH

*I am signaling you through the flames.  
The North Pole is not where it used to be.*

- Lawrence Ferlinghetti (1965)

Born out of the gold rush in the 1840s, San Francisco has long been a city of aspiration, opportunism, provocation, creativity, and *cyclical growth*. It has reinvented itself many times. Over the course of the 20th century, the city has been a stronghold of trade unionism, a magnet of the African-American emigration, the heart of the gay rights movement, the beat movement, feminism and 1960's counter-culture. Rebecca Solnit describes the city as a “refuge and anomaly,” associated with paganism, jazz, social experimentation and social service; the home of pariahs, punks and populism—and also capital. Today, the city is best known as the epicenter of America's Web 2.0 technology industry. In 2014, the gallery that first displayed Lawrence Ferlinghetti's work is making way for a cloud computing company called MuleSoft. Some residents lament, other claim that this is likely one more era of radical change that will be superseded by the next.

Cultural assessments aside, the city is now experiencing a period of unprecedented growth. Restaurants are full, vacancy rates are dropping, and the unemployment rate recently reached a record low of 4.8 percent.<sup>24</sup> As one

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<sup>24</sup> City of San Francisco Department of Planning. “Update Report FY2013.”

journalist describes, “Tech workers on mega salaries are pouring in at the vanguard of *a new gold rush*. They're moving into a city that has always prided itself on being a colorful and varied melting pot... but perhaps not for long.”<sup>25</sup> Information Technology jobs in San Francisco have risen 25 percent in the last 2 years, and now make up 8 percent of employment in the city. Government support, in the form of direct firm-level subsidies and various land-based enhancements, has fuelled the fire, with a seemingly shortsighted orientation toward accelerating rather than managing the path of growth.

San Francisco is also increasingly polarized, and the cultural and political landscape is changing—as it has in the past. Contemporary media coverage is stacked with double-barreled descriptions of the city, as “a mix of Latinos and the Technorati”, “trendy and gritty,” “feisty and flush.” Google’s corporate luxury buses have become symbols of a divided city, and many residents are locked out of the tech industry’s newfound prosperity. According to a recent study by Alan Berube, income inequality in San Francisco is rising at the fastest rate in the country.<sup>26</sup> In response to escalating affordability issues, a recent wave of housing evictions, and controversial policy action and inaction, protests have erupted. These demonstrations have captured the imagination of international media outlets, and feed a widespread narrative that the city is gripped in the middle of a raging class warfare.

The laments of change are myriad; with apocryphal claims that San Francisco is becoming ‘sleeper city for single white nerds who ride private, corporate buses’, ‘a sterile, robotic, money-grubbing tech hub’, and ‘a playground for the elite.’ There is a sense of exile among artists and older residents, as the ‘progressive’ administration appears unable to provide protection for the city’s most vulnerable residents. The tech-companies have been held responsible for the affordability crisis. However, as private corporations, their incentives are transparent, as is their limited ability to address the structural issues associated

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<sup>25</sup> Greenfield, R., “The Known, Unknown, and Unknowable of Twitter’s \$10 Billion Valuation,” *The Atlantic Wire*, February 27, 2013

<sup>26</sup> Berube, Alan. “All Cities Are Not Created Unequal.” *Opportunity Series*: The Brookings Institution. 20 February 2014. Retrieved from: [www.brookings.edu/research/papers/2014/02/cities-unequal-berube](http://www.brookings.edu/research/papers/2014/02/cities-unequal-berube)

with rapid growth in a limited land mass. Yet, it is perplexing how these firms, which have created the new communication platforms that the world relies on, somehow remain deeply disconnected from the communities at their doorstep.

Tom Hayden, founding member of SDS, has described the hostility against Google and similar companies as an “inevitable part of a class struggle around the means of producing information.” There is something poignant in the fact that protestors recently relied on Twitter’s social media platform to organize a sizable protest against the company itself, outside the Twitter headquarters in the Tenderloin. In Manuel Castells’ book *Social Movements in the Internet Age* (2012), he writes optimistically of the democratizing power of new information technologies to organize social movements and counter the *dominant one-dimensional logic of pure money and instrumentality*. While there is an important point about the potent social good that disruptive innovations may offer the future, the industry’s physical agglomeration in places like San Francisco poses an immediate dilemma for local government.

### **3.1 San Francisco’s Web 2.0 Boom**

San Francisco is now the most expensive city in the country. Both the median household rent and median household income are the highest in the nation. Across the city, growth and reinvestment are creating a new set of challenges for housing policy. According to the National Low Income Housing Coalition, in order to afford an average two-bedroom apartment the city, one would need to earn \$36.63 an hour—more than three times the minimum wage. City officials attest that almost every neighborhood is experiencing a surge in demand, which has raised home values and brought more fiscal, economic, and social resources to the city, while creating particular hardship for low- and middle-income residents and businesses.

In a city often regarded as unfriendly to business, Mayor Ed Lee, has openly courted start-ups and supported the interests of the tech industry (his largest campaign contributors), which has further incentivizing clustering, despite record-high salaries and strong organic growth. Naturally, the cost-benefit

analysis of these policies is complex. The city's current boom is enviable. San Francisco's unemployment rate has dropped at record rates, from 10.1 percent in January 2010, to 5.4 percent in April 2013. In just the first four months of 2013, it fell 22 percent.<sup>27</sup>

Mayor Lee is quoted in a New York Times article (June 4<sup>th</sup> 2012), describing the city's rapid growth: "*It's economic civil rights,*" he says, "*You get people a job, you build their economic foundation, and then, if you set the right tone, they will start helping you build communities. We can't do it with government-funded programs. We have do it with the private sector.*" Addressing the city's controversial Central Market Payroll Tax Exclusion Policy, passed in designed to keep Twitter from leaving the city in 2011, Lee states that, "*Those breaks and others on stock options were necessary to keep rapidly growing start-ups from leaving the city and attracting new ones.*"<sup>28</sup> And yet, without any strategic measures to manage change with an enforceable vision of the future, fueling the market poses a threat to the city's long-term economic security.

In the next section, I analyze the Central Market tax policy in closer detail, assessing its economic footprint and political origins. I use the Mid-Market tax program as an emblematic case of how tech-driven development impacts, benefits and changes the city, in all its circumstantial complexity, in order to asses what these outputs mean for the future. If the market crashes, what will happen to the Mid Market/Tenderloin district, and the city? Who benefits from this development stream, and what does the policy reveal about the city's approach to promoting tech? Have lessons from the past been considered?

### **3.2 Fast Economic Development**

Last year for the first time, San Francisco experienced more venture capital inflow than Silicon Valley.<sup>29</sup> According to City data, 30 percent of new

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<sup>27</sup> City of San Francisco Department of Planning. "Update Report FY2013."

<sup>28</sup> Onishi, Norimitsu. "New San Francisco Tech Boom Brings Jobs but Also Worries." *New York Times*. June 2012. Retrieved from: <http://www.nytimes.com/2012/06/05/us/san-francisco-tech-boom-brings-jobs-and-worries.html>

<sup>29</sup> Florida, Richard. "San Francisco Venture Capital Flow." *Atlantic Cities*. December 2013.

jobs created from 2010-2013 have been in ‘Tech.’ Over the last two decades, the technology industry has grown, from *a base of less than 1 percent* in 1990, to a *base of 4 percent* during the 2000 dotcom era, to *nearly 8 percent* today.<sup>30</sup> Wages, however, have polarized. While the median income is rising, there are fewer and fewer moderate income jobs in the market. The New York Times reports that mid-level Google engineers are being paid \$3 million a year, and financial analysts PrivCo estimated that Twitter's stock market launch in November 2013 created more than 1,600 new millionaires in a single day.

The housing market has also seen unprecedented jumps. Median rent increased 12.3 percent last year, and housing prices have risen 16.2 percent from 2013 to 2014.<sup>31</sup> Less discussed but equally important is the effect of the market on commercial gentrification on small business growth and retention. A recent report from the CBRE Group has found that “rising high-tech employment has helped fuel double-digit rent growth in 10 tech-dominated office submarkets across the country.”<sup>32</sup> According to their research, “rent premiums commanded by office submarkets with heavy high-tech employment is increasing,” and has been especially pronounced in San Francisco’s SOMA district, where rents have increased *51 percent over the past two years (2011-2013)*. They also find that the differential between the tech and non-tech submarkets has grown *to 18.1 percent*, compared to 2.2 percent in 2011. (Ibid)

### **3.3 History Repeats Itself**

San Francisco is well known for its boom and bust cycles, and its history is layered with periods of job growth, rising incomes, rising rents and speculation followed by jumps in unemployment, vacancies and deficits. Gentrification driven by white, middle-class newcomers is also nothing new. Even the hippie's in the 1960s were accused of displacing poor and working-class residents of the Haight-

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<sup>30</sup> Metcalf, G. “The Tech Boom” The Year in Urbanism, SPUR, Jan 2014.

<sup>31</sup> City of San Francisco Department of Planning. “Update Report FY2013.”

<sup>32</sup> McGrath, Richard. “U.S. Tech-Twenty: Measuring Office Market Impact.” CBRE Group Inc. Report (2013).

Ashbury neighborhood, according to Stanford Cultural Historian Fred Turner.<sup>33</sup>

The city's current affordability and eviction crisis also echoes a similar upheaval that took place during and after the dotcom boom and bust of 1997 to 2001. Describing the upheaval in 1999, geographer Richard Walker writes, "*Startups turned warehouses into offices. Venture capitalists poured money into companies with no earnings. Chronicle reporters wrung their hands about the disappearing soul of the Mission, as home prices in the city jumped 30 percent in now-familiar patterns*" (2007). Rebecca Solnit, an outspoken advocate against the industry then and now, documented a parallel process of gentrification, eviction and cultural change during the dotcom era, in a photographic narrative of "*the relations between those who sit in the cafe of redevelopment and those who can only press up against its glass.*"<sup>34</sup>

Historian Ellen Huet claims that, "Since both activism and tech skew heavily toward the young, who have a reputation for not remembering the past... a the lack of institutional memory means that many mistakes of the recent past are being repeated."<sup>35</sup> She further notes that in 2011, when the record IPO of LinkedIn marked the arrival of today's second "Web 2.0 Craze," the city was only beginning to build the housing it needed on newly zoned land. "The underlying imbalance between supply and demand only grew," she writes, "and activists still don't agree on whether the [zoning] plan addressed the city's needs correctly."<sup>36</sup> Mistakes were made. Opportunities to pursue more equitable development were overlooked, and today we see the same patterns emerging with greater force.

The important point becomes, in the short-game of politics, and the long-game of economic development, there is a disconnect between past and present that endangers local economic resilience and foregoes opportunities to establish a more equitable or balanced model of growth—instead responding the immediate demands of the market. At times, community-driven advocacy also stands in the

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<sup>33</sup> Ibid. Richtel, 2001.

<sup>34</sup> Solnit, Rebecca, and Susan Schwartzberg. *Hollow City: The Siege of San Francisco and the Crisis of American Urbanism*. London: Verso, 2000.

<sup>35</sup> Huet, Ellen. "How Tech Became the Enemy, Then and Now." *San Francisco Gate*. Web. Updated 24 May 2014. Retrieved from: <http://www.sfgate.com/realestate/article/How-tech-became-the-enemy-then-and-now-5342897.php>.

<sup>36</sup> Huet, 2014.

way of equitable long-term planning, as I will discuss in Chapter 6. All of this amounts to a political process that doesn't aspire to systems-level change, fails to learn from history, and fails to produce comprehensive policy that accounts for cycles of both development and decline.





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## Chapter 4.

# THE TWITTER TAX BREAK

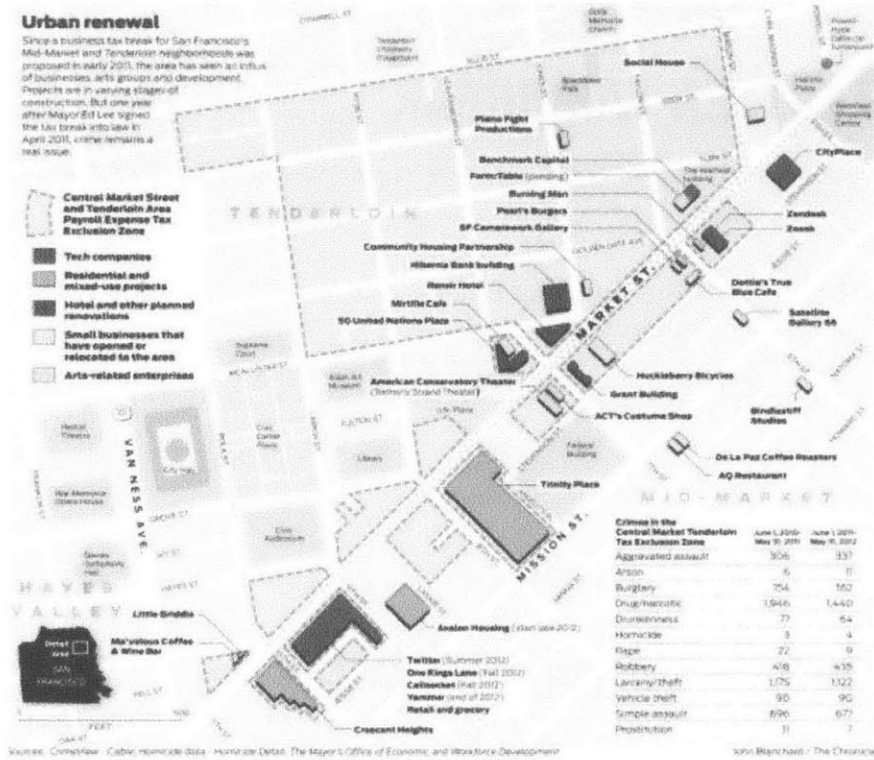
*“We were promised flying cars, and instead what we got was 140 characters.”*

– Peter Thiel, Founder of PayPal

### 4.1 Central Market/Tenderloin Payroll Tax Exclusion

This chapter will focus on San Francisco’s recent Central Market/Tenderloin Payroll Tax Exclusion program. To better understand the administration’s current policy agenda, I look at the incentives behind the program, its immediate returns and longer-term consequences. The Tenderloin Payroll Tax Exclusion, also known as the “Twitter Tax Break,” has become one of the most controversial policies associated with the current tech era. Proposed by Mayor Gavin Newsom and implemented by subsequent Mayor Ed Lee in 2011, the Tenderloin Tax Exclusion was designed as part of an incentive to prevent Twitter, a social media company founded in San Francisco, from moving its headquarters out of the city. The program provides a 6-year payroll tax exemption on new hires for any company that locates within the Mid-Market/Tenderloin corridor, pictured below.

Figure 1. Map of Mid Market Tax Exclusion Zone



The district is drawn around a long-improverished stretch of Market Street from Fifth Street to Van Ness, cutting through the center of the city’s poorest and most disinvested neighborhood; an area historically known for its single room occupancy hotels, check-cashing stores, social service providers, and general tattered urban development. In 2011, just before the program was implemented, the area had a 50 percent office vacancy rate and 30 percent storefront vacancy.

After implementation, changes rapidly took place. In 2012, Twitter committed to a long-term lease in the former SF Mart building, a famous art-deco tower and coveted piece of real estate that had formerly been vacant. Following Twitter’s move, at least 25 new companies (18 in tech) also relocated to the area, rapidly forming what journalists have called a “Web 2.0” cluster which continues to grow, with a stark juxtaposition to the large poor and homeless community that currently remains. According to officials, the new activity and unprecedented boom in the commercial and residential real estate market in the area has

eclipsing any initial ambitions of incremental revitalization, and illustrates the powerful effect that these mobile emissaries of the industry can have.

### ***Policy Formation***

In 2010, Twitter was expanding and anticipated the need for additional employees and office space. Making it clear that the city's business payroll tax was a burden, the company announced its plan to move its headquarters to Brisbane, CA, a small suburb south of San Francisco. One Twitter employee clarified that conversations with the city were privately-held *prior* to the passage of the policy, but that the company's plans had also been made public. In an attempt to keep Twitter in the city and promote ongoing efforts to revitalize the Central Market, the City's administration, with the support of Tenderloin District 6 Supervisor Jane Kim, designated the tax exclusion 'zone' according to an opaque political process that later received criticism.<sup>37</sup> Although the exclusion was sector agnostic, according to Planning Department Director Neil Hurshowy, "the point was to create a tech cluster that would boost economic activity in the area and generate meaningful tax revenue in the long-run." (Expected revenues were originally estimated at \$54 million dollars over 20 years.)

### ***Policy Rationale***

The Central Market Payroll Tax Exclusion was based on the rationale of providing two primary benefits. The first was the promise that it would incentivize Twitter to remain in San Francisco, providing the city the continued economic and fiscal benefits of the company's presence. The second benefit was that growing companies would be encouraged to relocate to the Mid-Market, contributing to the revitalization of the area by reducing vacancy rates, employing local residents, channeling new business to local suppliers and service providers, and providing direct support to the neighborhood through Community Benefit Agreements.

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<sup>37</sup> San Francisco's Payroll Tax applies to companies with payrolls in excess of \$250,000, and requires a company to pay the equivalent of 1.5 percent on total employee compensation expenditures.

Traditionally, economic development has been understood as the practice by which wealth is generated, through parallel goals of job creation and increasing the local tax base (Blakely & Bradshaw, 2002). Founded in economics and trade theory, economic development is seen as one basic mechanism of supporting growth, capital accumulation, and the vitality of *place* (Smith & Harvey, 2008). Since its institutional inception, debates have questioned the appropriate role of the government in this process (Glaeser et al., 2004). The means by which to attain growth, job creation, labor pools, and other outputs of successful development also seem to change with the times, and have been shaped by different industries and places (Currid-Halkett, 2011).

Although as an economic development strategy, the Central Market program draws on economic base theory and cluster theory, at its core, it is about lowering the cost of doing business in the Tenderloin, partially to help address a shortage of jobs, tenants, pedestrians, and investment in the area. However, this rationale demonstrates a misunderstanding of what forces drive what outcomes. Land has been cheapest in this area of the city for almost two decades. Theoretically, this submarket should have attracted businesses long ago. However, the area needed Twitter as an anchor, in order to set the current tech-firm clustering effect in motion (Terplan, January 2014). The power of the ‘tribe mentality’ has been seen in many other industries, as one industry leader attracts smaller firms in the same industry. However, the force and speed of this effect among tech-based start-ups is unusual, and is an important feature of this new era of ‘fast’ economic development that targets mobile firms with few fixed assets, low overhead costs, and an insider community-based culture.

Critiques of this policy are grounded in the notion that true economic development requires a strong equity component. If the Central Market program has found success by its own narrow metrics, critics have argued that it will hurt the city by increasing the pressures of gentrification on low- and middle-income residents, in the area and elsewhere in the city. The direct impact on jobs is hard to measure. However, a primary analysis of local business dynamics, through the ReferenceUSA data portal, shows that only 5 new *neighborhood retail businesses*

have opened in the district since 2011, suggesting that the benefit from the promised demand for local goods and services been modest so far.<sup>38</sup>

## 4.2 The Cost of Engagement

It is commonly estimated that Twitter will save \$22 million dollars over the course of the 6-year exemption. In total, unions say that the "Twitter Tax Break" will cost the city government \$56 million dollars. In 2012 alone, accounting for the move of large firms like Zendesk and Spotify, the city will incur an estimated \$1.9 million dollars in foregone business taxes.<sup>39</sup> Many claim that this money should have gone to social support services, which are poignantly in highest demand within the tax exclusion district itself.

The \$56 million dollar cost estimate comes from a combination of the Central Market program, and an additional temporary, *city-wide* tax exemption passed in 2011 that focuses on employee stock options. This program also benefitted companies like Zynga, Twitter and Zendesk, by capping the *employee stock options tax* for pre-IPO companies at \$750,000 (on any equity granted before a public offering). According to interviews with the City, this policy was intended to help retain start-ups as they mature; to keep these jobs in the city and to earn taxes on gross receipts in the future. The stock options tax exemption is less publicized but more controversial, as it lacks any place-based community development rationale and hits to the center of the debate around the purpose and goal of public expenditure. James Temple at Re/Code estimates that this program will cost the City an additional \$34 million, on top of the Central Market program (for \$56 million total.)

On the other hand, Jason Klein has emphasized that, at the time that both exclusions were passed, San Francisco was the only city in California to derive all of its business tax revenue from payrolls, and one of the few cities in the nation to tax employee stock options. As Egon Terplan also reiterates, the Central Market

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<sup>38</sup> Primary analysis: Percent Change in Food/Retail Sector Businesses in Zipcodes 94102, 94103 from 2007 - 2012. *ReferenceUSA*. Open-source Web data.

<sup>39</sup> Based on an estimate of \$126.8 million dollars in payroll expenses for companies in the tax zone.

Payroll Tax Exclusion is “a tax cut on a unique employment tax that doesn’t exist anywhere else in the region,” and has been a source of controversy for many years (Interview, January 2014). In 2018, the City will shift to a gross receipts tax system, which will eliminate the payroll tax altogether, rendering the Twitter Tax break a “moot point.”<sup>40</sup> In summary, although none of these moves represents *radical policy-making*, they do point toward a shift in the political climate, which is becoming more ‘business-friendly,’ as the City aligns its tax policy with that of the region and state.

Those in support of the policy contend that if Twitter had relocated, the city would not have received any of the economic and fiscal benefits associated with the company’s future gross receipts taxes, or the new sales and property taxes now generated by the district. These revenues are substantial, in excess of \$56 million over six years, although many residents share a suspicion that Twitter would have stayed in the city regardless of the incentive.

### **4.3 Social and Economic Footprint of Development**

#### ***Immediate Returns: Tax Revenue, New Construction and the Cluster Effect***

According to sources in the City Planning Department, officials were unprepared for the speed at which the market responded after Twitter moved to Tenderloin/Mid-Market area (Interview, Shannon Spanheke). Between 2011 and 2012, the district experienced a 21 percent increase in sales-tax revenue and an 8 percent decline in vacancies. Historic office buildings that once stood vacant, like the former Pacific Bell Telephone Company tower, have now nearly filled their floors with software companies like Luminosity, Terracotta, and Yelp, along with two high-end restaurants and a DIY bike repair shop. In April 2014, the City announced that the program has already helped to generate *\$8.4 million dollars in*

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<sup>40</sup> From 1970 until 2001, San Francisco operated on an alternative-measure business tax, consisting of a 1.5% payroll tax and a varying rate gross receipts tax. Every company doing business within the city calculated its tax payment under each system and paid whichever amount was higher. But in 1999, General Motors brought a suit against Los Angeles, which had a similar alternative-measure tax, and in March 2000, the California State courts decided that it was unconstitutional to levy the gross receipts and payroll taxes against different firms simultaneously. San Francisco’s ballot vote selected to institute the payroll tax, which is claimed to have cost the City significant revenue over the last decade.

*property and real estate transfer taxes*, and convinced 17 small businesses to open in the district.<sup>41</sup>

Real property taxes are the largest single source of tax revenue for the City, according the City Comptroller Report FY2011-12. In other words, new property development and rising property values are significant to the public budget. By this metric, as a catalyst for urban development, the Payroll Tax Exclusion has been very successful. From 2012-2013, the city collected \$1.34 billion in property-related taxes, a 10 percent increase from \$1.22 billion in 2012. According to an update from the Comptroller's Office in March, the City expects to see *\$79 million more in property taxes this year*, in excess of the \$1.15 billion it had originally budgeted.<sup>42</sup> Public officials assert that a majority of this growth can be attributed the tech-fueled economic recovery. From 2011 to 2012 alone, building permit applications rose by 7 percent, and the estimated cost of those projects increased by 16 percent. While the increase in new construction starts overall is significant, a more significant rise is seen in the *price, or value*, of the development pipeline—promising ever higher property taxes in the future.

The City also collected \$121.9 million in direct sales taxes citywide from 2012 to 2013, up 15 percent from the previous year. By and large the most significant revenue stream, however, comes from the new property development and rising property values in the area.<sup>43</sup>

### ***Community Benefit Agreements***

Community Benefit Agreements are the simplest, and least robust, mechanism for recapturing 'social rents' on new development and redistributing some small measure of the gains. CBAs have been negotiated with the six largest companies in the Tenderloin, but deemed unsatisfactory by both community members and administrators.<sup>44</sup> Beyond vague promises for volunteerism,

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<sup>41</sup> City of San Francisco Department of Planning Website. April 2014.

<sup>42</sup> "Budget Analyst; "Five Year Financial Plan Update FY 2014-15 through FY 2017-18." Joint report from: *San Francisco Comptroller's Office, Mayor's Office, and Board of Supervisors*. 6 March 2014.

<sup>43</sup> *Ibid.*

<sup>44</sup> "Interview with Neil Hurshowy." Personal interview. Jan. 2014; "Interview with Jason Klein." Personal interview. Feb. 2014.

unspecified amounts of technical assistance and social media training, Twitter's CBA includes \$170,000 of in kind cash and grants for local non-profits (\$60,000 of which are sponsored Tweets), and \$200,000 in local purchasing of supplies or services.<sup>45</sup> In reaction to heavy criticism, the company has also added specific targets to its agreement in 2014, including \$10 thousand dollars for homeless services and \$30 thousand dollar "tech scholarship."

Peter Masiak, the Citizen's Advisory Committee Chair, has drawn particular attention to vague or missing provisions regarding to the companies' *actual interaction with the neighborhood*. Alison Arieff, Director of SPUR, has noted that Twitter's presence "*in a depressed section of a major thoroughfare was expected to help revitalize it, [but] a walk through the neighborhood reveals that this is yet to happen. Twitter employees are fed breakfast, lunch, dinner and snacks... as such, they have little incentive to leave the building.*"<sup>46</sup> Jason Klein, from the City's Economic Development Department, has also acknowledged that internalized services in many of the big ICT companies has diminished the potential upside of local consumer spending and neighborhood business growth.

### ***Social Cost of New Demand: Displacement and the Anti-Boom Backlash***

Meanwhile, while real estate appreciation and new development starts are generating meaningful revenue for government, there has been tremendous backlash from San Franciscans who see the tax break as emblematic of the city's 'disconnected and hypocritical' administrators, whose 'corporate interests' do not reflect the needs or opinions of San Francisco's long-time residents. A cost-benefit analysis of tax revenue lost and gained can be spun according one's model, but the visible impact of development on the neighborhood raises clear equity questions about gentrification in the Tenderloin.

Down the street from Twitter's headquarters, homelessness, hunger and

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<sup>45</sup> "Central Market/Tenderloin Payroll Expense Tax Exclusion." *San Francisco Office of Economic and Workforce Development*. Retrieved from: [http://oewd.org/Central\\_Market\\_Tax\\_Credit.aspx](http://oewd.org/Central_Market_Tax_Credit.aspx).

<sup>46</sup> Arieff, A. (2013). What Tech Hasn't Learned From Urban Planning. *The New York Times*.

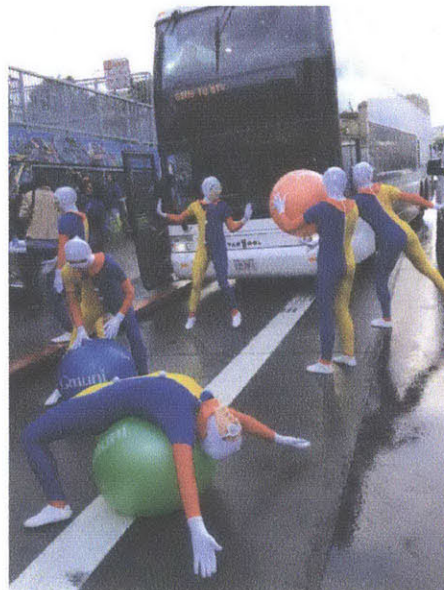


deprivation persist: a woman digging for plastic bottles with a child in her arms, a man sleeping under an abandoned rug at lunch hour. The wealth gap in the city is nowhere more apparent. Zendesk’s new office building is framed by two boarded storefronts, just five minutes away from the Cadillac Hotel, the first Single Room Occupancy hotel west of the Mississippi. The panhandling community sits daily outside the new Twitter entrance—which is heavily guarded and closed to the street. Half a block away, a new high-rise luxury apartment condominium called “NeMa” (suggestively short for “New Market”) is under construction. CityPlace, a new 250,000 square-foot retail development, will also be completed by the end of this year.

On November 7<sup>th</sup> 2013, the day of Twitter’s Initial Public Offering, protests began outside the company’s headquarters at 6:30am. Twitter had just come out with a valuation of \$24.4 billion dollars. Demonstrators, organized by a coalition of labor organizations under the name *#ThrownOutByTwitter*, gathered outside the company’s headquarters holding signs that read, “We are the Public, What Are You Offering?” and “R.I.P. Affordable Housing.”

Since the beginning of December 2014, protests have become increasingly common. In the last month alone, April 2014, hundreds of protesters have blocked Google and Facebook shuttles heading to the Valley. Much of the anger is leveled directly at the “tax-payer subsidized tech industry,” and the companies themselves. Steve Zeltzer, Supervisor of the United Public Workers for

Figure 2: Google Shuttle Protest, Mar 2014



Action, summarizes the movement's main accusation, "While billionaires are getting tax subsidies, people are getting kicked out of their homes. People are fed up."<sup>47</sup>

Although activism has a long legacy in San Francisco, the scale and pitch of today's protests highlight a break in the system; a failure in the management of naturally-occurring growth. Interestingly, many of the current slogans and strikingly similar to those launched during the protests of dotcom era. Rebecca Solnit has documented similar signs from 2000, reading "URL go to Hell" and "Die, Dotcommies." At the height of the boom, she predicts a dystopian path for the city. *"A decade ago,"* she writes, *"Los Angeles looked like the future—urban decay, open warfare, segregation, despair, injustice and corruption—but the new future look like San Francisco: a frenzy of financial speculation, covert coercions, overt erasures, a barrage of novelty-item restaurants, websites, technologies and trends, the despair of unemployment replaced by the numbness of incessant work and the anxiety of destabilized jobs, homes and neighborhoods."*<sup>48</sup>

Although in both eras, the big tech companies provided a vivid target for blame, Spanheke says that then, as now, "activists recognized that the city's real estate policy and development environment are the real drivers of displacement."<sup>49</sup> It comes down to the rapid rent price hikes, an undersupply of low- and middle-income options, and loopholes for abusive speculators, which have resulted in an alarming rise in Ellis Act and other evictions. The San Francisco Tenants Union estimates that "no-fault" evictions associated with the Ellis Act have displaced approximately 1,400 renters in 2013, not accounting for landlord buyouts and tenant harassment to place units back on the market.

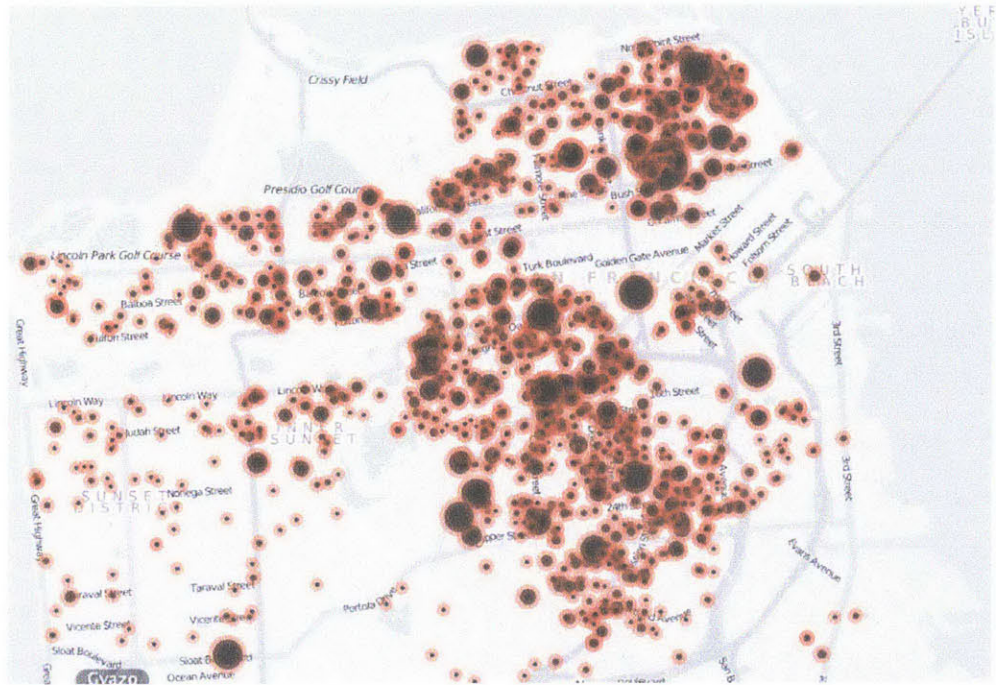
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<sup>47</sup> "Outside Twitter's Headquarters, a Mix of Happy Employees and Angry Protesters." *Mercury News*. Web. 23 May 2014. Retrieved from: [http://www.mercurynews.com/business/ci\\_24475855/twitter-ipo-outside-headquarters-celebration-angry-protesters](http://www.mercurynews.com/business/ci_24475855/twitter-ipo-outside-headquarters-celebration-angry-protesters).

<sup>48</sup> Solnit, Rebecca, and Susan Schwartzenberg. *Hollow City: The Siege of San Francisco and the Crisis of American Urbanism*. London: Verso, 2000.

<sup>49</sup> "Interview with Shannon Spanheke." Phone interview. Feb. 2014.

**Figure 3. Ellis Act Evictions since 1970: Eviction Mapping Project**



The Ellis Act was passed in 1985 to provide landlords with an alternative means to get out of the rental business. However, the Act is now primarily used by real estate speculators, who exploit a caveat in the act, allowing them to buy a building and then immediately ‘exit the rental business,’ creating mass “no fault” evictions of low and middle-income tenants. Ellis Act evictions peaked in 2000, but they've risen sharply again in recent years, *by 81 percent from 2012 to 2013 alone*.<sup>50</sup> The City is trying to respond as quickly as possible, but its agency is compromised by the fact that the Ellis Act is state law. However, a reform bill did clear the Senate Judiciary Committee on May 6<sup>th</sup>, 2014 and is now on the Senate floor—supported by a diverse new tech-labor-tenant coalition, including 50 signatories from big tech companies.

Under these conditions, the City has a responsible to intervene. However, as discussed later in the report, immediate action on housing policy is also complicated by deeper, systemic barriers to densification and development in the region. The current affordability crisis reveals the city’s vulnerability in the face

<sup>50</sup> Ellis Act Eviction Mapping Project. Website. March 2014.

of rapid development that distorts baseline conditions in the market. These problems could be diagnosed earlier in the cycle if planning and policy-making were oriented toward a resilience-based framework.

Although the housing market receives most attention, it is also important to recognize that this is not only an issue of the undersupply in housing, but also the undersupply of jobs, particularly middle-income jobs, which would create a larger middle-class base in the city, and more demand for middle-class housing. Terplan also identifies a separate risk in the aggressive conversion of Class B and C office buildings into Residential, in response to the market. He highlights that this reduces stock of potential commercial space for small or lower-revenue generating businesses, exacerbating the rise in commercial rents and the diminished range of options.

From 2012-2013, Downtown office rents in the city increased 23 percent, to an average of \$52.21 per square foot.<sup>51</sup> With fewer businesses able to compete with current rent prices, the range of demand in the office market is also reduced. This process exemplifies the kind of structural market shifts that take place during boom-time development and may have long-term hazardous impacts when the market turns, or when the city decides that it needs to diversify its professional industries.

## **4.5 Summary and Conclusions**

So far, the primary benefits of the city's latest tech-based economic development initiative have been in tax revenues, associated with real estate appreciation, demand, and development. Businesses are quickly moving into the area, but so far they have moved from elsewhere within the city. Depending on your perspective, one may see this as the "revitalization" of the Tenderloin. It is unclear, however, where the incumbent residents, non-profits, and homeless community will go as market-rate development continues

Demand for local services and the vibrant street life that some community

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<sup>51</sup> "Office Snapshot, San Francisco, Q4 2011 and 2012." *MarketBeat*, Cushman & Wakefield (2012).

leaders had hoped for. From a different perspective, Terplan suggests that the magnitude of “local benefits” depends on how you define “local.” He claims that, “When it comes to procurement and supplier opportunities, there are probably synergies that could be established at a much more local level [in the Mid Market], but these firms will be procuring most of their inputs ‘locally,’ within the Bay Area.” In other words, the aggregate demand for new services will feed into the region, but benefits will not necessarily accrue to the neighborhood.

This may be the bill of goods that was ordered. Keeping Twitter in the city retains over 400 wealthy employees and taxpayers, but more importantly it keeps one of the industry’s major leaders in house. It reinforces the future growth of the industry within the city, which will create future jobs. It does this while doing little to redistribute or recapture ‘social rents’ on the benefits given to the wealth-generating class it attracts.

In the meantime, activating the city’s last underperforming real estate generates substantial new property tax revenue for the city. This feeds the city’s “service-tax ratio.” In theory, net gains in municipal tax revenue should be good for all, translating into better public infrastructure, better education, more social services, and more public housing. However, a vicious cycle ensues when new public revenue, based primarily on property tax increases, comes at the cost of putting additional pressure on the housing market.

It also means that many lower- and middle-income workers will be pushed farther out of the city, straining the already underinvested regional transit system, decreasing quality of life for many, and sapping the city of its diversity. From 1990-2000, the city lost 30 percent of its African American population. After the bust, these families did not return. From 2000 to 2005, the city again lost another 27 percent of its African American households, along with 12 percent of its Latino households, and a small portion of its White and Asian households (with total population decline of 7.5 percent.)<sup>52</sup> From conversations with local residents, it is thought that this is not only about the cost of housing, but the loss of a critical

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<sup>52</sup> “Working Paper.” San Francisco African American Out-migration Task Force and Advisory Committee. (2012).

community mass.

Rebecca Solnit describes a similar “*siphoning off of diversity, cultural life, memory, complexity*” during the dotcom era, when she concludes, “*It will be a hollow city.*” As affordable office and retail spaces also dwindle, the diversity of small business and other professional industries is also threatened. San Francisco’s cultural diversity has also long been seen as an economic asset, as well as a social good. When one considers the long-term trajectory of the city, these trends are troubling from a growth and equity perspective, and from the perspective of economic resilience. Given the current reliance on tech-based sectors as the engine of growth, will other industry clusters remain if a crash occurs? In the next down cycle, will the city have a middle-class to hold the tax base? Will racial and economic inequality stymie growth? What products and processes will “innovation” yield in an ethnically and socio-economically homogenous place? The following chapter explores some of these questions.

Finally, in a city so set on remaining the nation’s tech capital, the lack of deliberate engagement and parallel thinking around digital literacy, cross-sector technology adoption, and public STEM education and programming is striking. In places like New York City, where the Bloomberg administration decided to define his legacy by building a new “tech economy” from the bottom up, many more deliberate investments have been made in public science and technology education programs, entrepreneurial services, and other strategies to seed a “homegrown local workforce,” promoted in partnership with investments in the Brooklyn Tech Triangle and the new Applied Sciences campus on Roosevelt Island.

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## Chapter 5.

# LESSONS FROM THE DOTCOM ERA

*“You want the tech industry to leave San Francisco? Great idea. I feel like there's another example of a major industry leaving a large US city in recent history. Oh yeah... Detroit. That worked out pretty well for them I'd say.”*

-Anonymous, SFGuardian.com (2014)

Business Insider defines a boom-bust cycle as *“An economic bubble exists whenever the price of an asset that may be freely exchanged in a well-established market first soars then plummets over a sustained period of time at rates that are decoupled from the rate of growth of the income that might reasonably be expected to be realized from owning or holding the asset.”*<sup>53</sup> As previously noted, San Francisco has long been a city of boom and bust cycles. Throughout the 19<sup>th</sup> and 20<sup>th</sup> centuries, it has watched many industries rise and fall, new workers come and go, and real estate market prices fluctuate. This speaks to the resilience of the place and the enduring power of its natural assets (its climate, views, building stock and coastal context) to attract new waves of investments, tourism, and talented human capital.

I argue that this legacy is perceptible in the city's tacit approach to growth/crisis management in 2014. In some sense, San Francisco's public officials seem to rest on their laurels, in a sort of blind faith that the distributional

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<sup>53</sup> “Here's Why The Dot Com Bubble Began and Why It Popped.” *Political Calculations, Business Insider*. 10 December 2010. Retrieved from: <http://www.businessinsider.com/heres-why-the-dot-com-bubble-began-and-why-it-popped-2010-12>

consequences of *both* the city's upturns and the downturns will naturally succeed one another in a perpetual cycle; in faith that the region's fixed natural assets will prevent declines in the economy or quality of life beyond a livable threshold. In other words, a reliance on the ephemeral nature of growth and decline in the city can lead to a political complacency that fails to account for the major structural shifts taking place across both the city and the country.

This optimistic outlook, consistent with the region's bias toward rose-tinted realities, seems to abdicate some sense of urgency and responsibility on the part of the city government—who has yet to actively draft precautionary and protective policies to manage development and demand, preserve diversity, or equitably distribute wealth over the course of upward growth. *Can the city count on these assumptions? Are there indications that certain changes are less reversible in this round of growth? Will there be deeper losses when (not if) the next tech bust comes?*

## 5.1 Legacy Forces in Economic Development History

The late 20<sup>th</sup> century was characterized by significant changes in the management of cities in advanced capitalist societies. As the retrenchment of federal spending aligned with a new national priorities oriented toward the global market, many new responsibilities were shifted to individual cities and states. An increased emphasis on 'proactive development strategies' emerged, which brought new attention to the involvement of business interests in local city politics (Reese & Ye, 2013; Goodwin and Painter, 1996). According to David Harvey, this also coincided with a move from 'managerialism' to 'entrepreneurialism' in urban governance, with an increasing shift toward the "subordination of traditional social politics to those that supported economic development."<sup>54</sup>

Meanwhile, the dissolution of national redistributive policies also led to a greater emphasis on the competition between places for resources—forcing cities "to fling themselves into the competitive process of attracting jobs and investment

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<sup>54</sup> Harvey, David. "From Managerialism to entrepreneurialism: the transformation of urban governance in late capitalism," *Geografiska Annaler 71B* (1989): 3-17.



by *bargaining away living standards and regulatory controls.*"<sup>55</sup> These increased revenue needs also came with increased autonomy in local public spending; i.e. reduction of Community Development Block Grants funds also meant the reduction of clearly-set CDBG mandates. These grants are explicitly earmarked "to support a specific, targeted set of economic development activities: those that increase economic stability, self-sufficiency, and opportunity for low- and moderate-income people for these activities." Absent these specifications (that characterize the traditional goals of economic development), cities have had more freedom to set their own (smaller) budget and service agendas—which may not prioritize strategies for lower-income wealth generation.

With the parallel processes of globalization and localization, we've also moved increasingly toward "a mosaic of regional economies," which creates both inextricable interdependencies and an increasing fragmentation of local economic development policies. Goodwin and Painter argue that, while local governance has risen to fill certain gaps in the Post-Fordist state, "there is little evidence so far that it is capable of helping to sustain economic development or social cohesion in the medium term" (1996). Many economic geographers draw on this distinction between the 'Fordist' and 'Post-Fordist State,' marked partially by the deregulation of the economy, the end of the 'welfare state,' and the loss of a former "wage relation in which wages are indexed to productivity growth and inflation, and state policies which helped to generalize mass-consumption norms."<sup>56</sup>

In California, economic decline during the 1970s and 80s, linked to global oil and banking crises, presaged the region's shift from a manufacturing center comprised of traditional 'Fordist' industries, to a 'Post-Fordist' service and manufacturing economy. For many, this resulted in poverty, unemployment, and insecurity (*ibid*). In 1990s, the national recession resulted in a surge of economic marginalization in across the state, exacerbated by the downsizing of California's

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<sup>55</sup> Peck, J. and Tickell, A. "Searching for a new institutional Fix: the Post-Fordist Crisis and Global-Local Disorder." *Post-Fordism: A Reader*. Oxford (2002): 280-315.

<sup>56</sup> Goodwin, Mark & Painter, Joe. "Local Governance, the Crises of Fordism and the Changing Geographies of Regulation." *Transactions of the Institute of British Geographies* (1996).

defense industry after the Cold War, which was left unaddressed, as public resources were shifted away from social services toward new investments in globally competitive markets. This sets the stage for the current socioeconomic conditions in San Francisco.

## 5.2 Dotcom Boom and Bust

In the early 1990s, prior to the boom, California was still recovering from the nationwide recession, tax revenues were down, unemployment was up, and the city was eager to attract new business. Quoted in a San Francisco Chronicle article from 2003, Julie Brandt, then deputy director of Economic Development for the city of San Francisco, says the department “Had a clear mandate to make it easier to do business in San Francisco.”<sup>57</sup>

The dotcom bubble began in around 1997, with the founding and expansion of new computer and Internet technology companies beginning. As the familiar narrative goes, these companies rapidly grew to become large companies, and a ravenous appetite for growth and investment told hold. Billions of dollars in venture capital finance was channeled into the area, attracting “*tens of thousands of young workers, paying their salaries, driving up rents, and supporting housing and commercial developments and other businesses.*”<sup>58</sup> Many argue that the dotcom boom and bust was a case of too much too fast: “companies that couldn’t decide on their corporate creed were given millions of dollars and told to grow to Microsoft size by tomorrow.” (Ibid)

The first blows to the bubble came from the companies themselves: many reported huge losses and some folded within months of their IPO, while others were taken to court during a series of government investigations into questionable bookkeeping and monopolistic business practices. After this, many dotcoms were liquidated, acquired, or filed for bankruptcy. Between March 2000 and October

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<sup>57</sup> Brook, James. *Reclaiming San Francisco: History, Politics, Culture*. San Francisco, CA: City Lights, 1998. Print.

<sup>58</sup> Metcalf, G. “The Tech Boom” *The Year in Urbanism*, SPUR. Jan 2014.

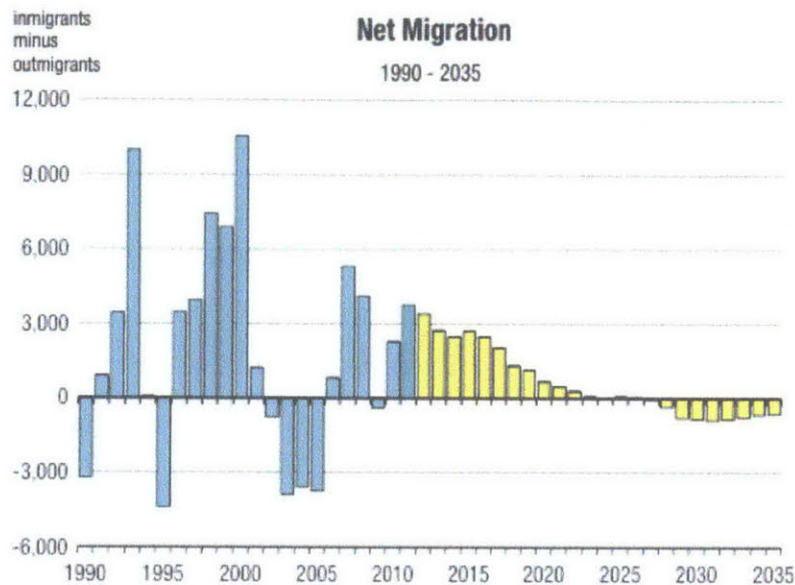
2002, the crash removed \$5 trillion in market value. In 2002, NASDAQ lost 78%.<sup>59</sup>

In addition to the high-profile court cases, several other factors contributed to the bursting of the bubble (which also mirror conditions and trends today). First, the use of metrics that ignored cash flow. Many analysts focused on aspects of individual businesses that had nothing to do with *how* they generated revenue or their cash flow. Instead, there was an obsession with “network theory” where value is measured based on users, nodes, and reach. Though logical on one level, this measure neglects one of the most important aspects of investment: the ability of the company to use the network to generate cash and produce profits. A second factor was the *highly over-valued stocks of dotcom businesses*. Analysts used very high multipliers in their formulas for valuing early Internet companies, yielding unrealistic and overly optimistic values.

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<sup>59</sup> “Here’s Why The Dot Com Bubble Began and Why It Popped.” *Political Calculations, Business Insider*. 10 December 2010. Retrieved from: <http://www.businessinsider.com/heres-why-the-dot-com-bubble-began-and-why-it-popped-2010-12>

**Figure 5. Net Migration Forecast and Trends for San Francisco County**



### 5.3 San Francisco, During the Storm

Although the dotcom boom is largely associated with Silicon Valley, San Francisco’s housing and labor market was severely impacted by the tech market crash in 2001, with large losses in jobs and population. San Francisco geographer Richard Walker writes of this period: “*The City was picked up, shaken until it rattled, and then dropped into a new configuration.*”<sup>60</sup> During the boom, the Bay Area added more than 600,000 jobs (1994-2000), driven by growth in the computer services, information services related to the Internet and computer and electronics manufacturing sectors. Reminiscent of current trends, commercial and residential rents sky-rocketed and a wave of Ellis act evictions incited similar outrage among activists and community groups. Following the crash, rapid job

<sup>60</sup> Walker, Richard. *The Country in the City: The Greening of the San Francisco Bay Area*. Seattle: U of Washington, 2007.

Print.

losses and the outmigration of young professional workers, which peaked in 2003, created dramatic shifts in the urban landscape.

The University of California Institute for Labor and Employment estimates that the region as a whole lost more than 300,000 jobs between 2000-2004, and the city itself lost over 70,000 jobs (which is almost all the jobs that it created).<sup>61</sup> The business services sector, including the computer services industry and Internet-related jobs, suffered the largest losses within this total. Significant losses in ancillary sectors serving the tech industry were also reported, including finance, technical services and temporary help agencies. However, the One Bay Area Foundation reports that the trickle down effect on the San Francisco's lower-wage *local service sectors* was not paramount, partially because the tech industry in that era was more distributed across the Bay, and primarily anchored in Silicon Valley.<sup>62</sup>

It is significant that a majority of the total jobs lost in the last tech crash mapped to a highly-mobile, professional labor class, whose departure from the city was welcomed by many long-time residents. Larger negative externalities were felt in the following years, but were substantially mitigated by three factors. Two of these dimensions are very different than the conditions today, and a future Web 2.0 bust would likely have a much graver impact on the lower-income and less-educated workers. First, the diminished demand for housing and office space—resulting in reduced cost of living and rebalancing of inflated housing costs—reportedly offset some of the losses in consumer demand and capital circulation. Second, more suburban geography of the first tech boom meant that the local economy was less dependent on consumer-driven multipliers for low-wage service and retail jobs within the city itself. Third, the relatively rapid rise and fall of the dotcom tech industry, still a somewhat unknown quantity, meant that the supply chain was less integrated in the overall regional than it is today. The widely distributed nature of new Web 2.0 services and products across all

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<sup>61</sup> Pastor, Manuel & Zabin, Carol. *Recession and Reaction: The Impact of the Economic Downturn on California Labor*. University of California Institute for Labor and Employment (2002).

<sup>62</sup> One Bay Area Foundation. "Bay Area Job Growth to 2040." Web. Feb 2012. Retrieved from: [http://www.onebayarea.org/pdf/3-9-12/CCSCE\\_Bay\\_Area\\_Job\\_Growth\\_to\\_2040.pdf](http://www.onebayarea.org/pdf/3-9-12/CCSCE_Bay_Area_Job_Growth_to_2040.pdf)

industry sectors and individual networks suggests that the current tech boom will have more longevity, and its eventual decline will have larger linkage repercussions.

This said, even in 2002, analysts were considering the fact that “Low-wage jobs in the service sector have often accompanied high-tech growth, most notably in the case of personal services for the new technological elite.”<sup>63</sup> The implications of tech-industry growth were recognized by some, like those at the California Institute for Labor and Employment, as “fundamentally reshaped patterns of economic inequality in the state,” as traditional manufacturing stagnating, higher technology sector cycled high then low, and low-wage service sectors continued to steadily rise. While the boom convinced many of the “tremendous potential of the “new economy”, the bust also exposed its downside for many *temporary workers* associated with the new tech-based economy. Early Internet businesses relied on labor market flexibility in order to quickly to competitive challenges and rapid innovation in process and products, but the temporary workers who made that flexibility possible were also laid off with ease, with less access to public and private safety nets.

A closer assessment of city expenditures from 2003 to 2007 also paints a more complex picture of the repercussions of this recession on low- and middle-wage workers, and the pressures on local government. Although the poverty rate in San Francisco remained relatively stable throughout the dot boom and bust cycle, public expenditure on “Health and Social Services” increased by 18 percent from 2000-2004.<sup>64</sup> With a 7 percent rise in unemployment in the city, workers who did have permanent jobs were entitled and in need of public support, costing the city significant sums.

The dotcom crash also coincided with other events and structural shifts that contributed to the more permanent loss of quality, *middle-wage* jobs in San Francisco. The rise of outsourcing to India in the IT service sectors, in addition to the permanent decline of computer electronics manufacturing and other low-skill

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<sup>63</sup> Pastor, Manuel & Zabin, Carol, 2002.

<sup>64</sup> City of San Francisco Office of the Comptroller: Update Report FY2000, Update Report FY2004.

assembly jobs which had lingered in the Valley, have also led to a more *permanent* reduction in the middle-wage, middle-skill opportunities associated with tech-based industries. Despite the Web 2.0 resurgence in the Bay today, the large share of high-tech manufacturing jobs never rematerialized. In the wake of September 11, an additional wave of job losses in the air travel and tourism sectors (hotels, amusements) also eliminated a disproportionate number of union jobs that paid living wages and had built-in benefits and protections. The Hotel Employees and Restaurant Employees International Union (HERE) reported that about one third of its members lost jobs in the city after September 11<sup>th</sup>.

It appears that the greatest harm to low-wage and vulnerable workers during the early 2000s recession was not the *direct* loss of jobs, but rather (a) the reversal of incremental but important gains in the political will for living wage policy, and new downward pressure on wages; (b) shrinking public budgets for social services, public education, other critical entitlements. The crash in Silicon Valley affected the upper echelons of the income distribution and eliminated wealth in the form of overinflated stock holdings and options. Although this superficially shrunk the wealth gap in the region by a small margin, it did little address structural issues of wage inequality and economic opportunity.

## **5.5 Managing Risk: Lessons from a Recent Past**

*What can we learn about the growth trajectory of these industries from this era? What is revealed about the vulnerability of the city today, in its second tech boom?* Following the 2001 downturn, the city experienced an extreme contraction in two major sources of state tax revenues: the personal income tax, and the capital gains tax—which yielded enormous revenues during the boom but collapsed afterwards. The 2002 to 2003 state budget deficit was close to \$24 billion in 2002. The California Budget Project estimates that over one-third of the proposed budget cuts would disproportionately affect low-income families.<sup>65</sup> Today, the city also relies heavily state capital gains taxes and local property

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<sup>65</sup> Pastor, Manuel & Zabin, Carol, 2002.

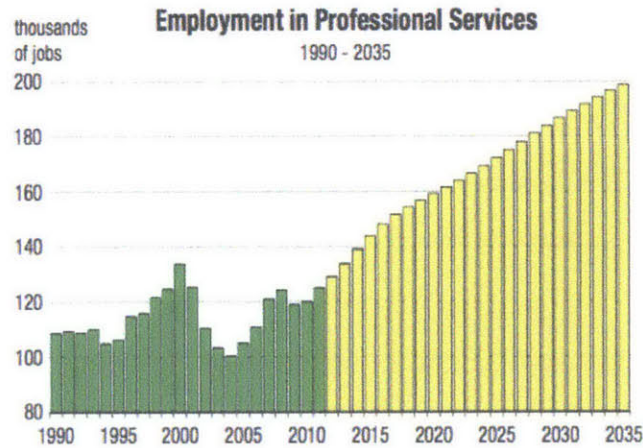
taxes, which are driven by the elite wealth-generating class. Without a more “diverse” portfolio of municipal revenue, the crash of the modern tech industry could leave the city with deep deficits, with an increased demand for social services at the same time.

High-tech industries, both then and now, rely on labor market flexibility, which supports growth during periods of expansion, but leaves workers vulnerable during inevitable boom and bust cycles. Today, there is an even larger rise in contingent and “portfolio” work in the city, with many individuals that may work a contract job during the day and choose their hours driving an Uber cab at night, or those who may supplement insufficient by renting rooms on Airbnb rentals. This creates an additional need to reinforce the public and private safety nets that will protect these individuals if demand recedes in a second crash.

Following the dotcom bust, some analysts predicted the return of the tech industry. They noted that since both high-tech and travel/tourism—the two

major industries that were hit after the market crash and 9/11—are highly *cyclical* in nature, and expand and contract in a different manner than manufacturing, These analysts held that the region’s technology and tourism sectors were still “well positioned to be the engine of growth in the coming years,” based on the precedented resilience of tourism industry, and the region’s competitive advantage in computer and high-tech services. Projections from the latest county population and economic forecast indicate a similar bullish outlook on tech (Figure 5). Indeed, the dotcom recession was relatively short-lived in San Francisco, and the tech boom has returned, a decade later.

Figure 5: San Francisco County Economic Forecast





However, there are two major problems with relying on this rationale, particularly if equitable development is a priority. First, as several public officials have claimed in interviews, the fundamental asset that has “always attracted investment in San Francisco” is the *diversity and skill of its labor force*. This crucial asset (diversity) may be at risk today, as the tech industry and the current real estate market prices push out workers from other professional sectors and income groups. The demographic shifts and development trajectories that accompany boom-cycles are not so easily reversed, and can have an enduring impact on who *returns* to a city once baseline conditions are restored. The precipitous drop in the city’s African American population during the boom was never regained, and continues to drop. The African American population peaked in 1970 with 13.4 percent of the total, and has declined to 6.1 percent today. This trend is only exacerbated by the fact that only 35 percent of African American families in the city are homeowners.

Second: although the high-tech industry *itself* may be resilient, and may depart and return to the city again and again, the city is not so mobile. By prioritizing investments in this highly cyclical and volatile sector, at the expense of supporting others, the city sets itself up for the risk of a wholesale collapse. With the current one-sided trajectory of growth, a second crash in the information communication technology market would have a tremendous and disproportionate effect on the city—catalyzing many job losses, office vacancies, and potentially the evacuation of the city’s wealthy tax base—if we extrapolate from the dotcom era. The Figure Y. on the opposite page shows the County’s population projection for 2035, expecting continued strong growth in the sector. Thus the city essentially sets itself to pay *twice*: subsidizing and incentivizing one-dimensional industry growth in the upswing, and then paying for the social repercussions and public benefits that will be needed in the downswing, when the silver bullet inevitably lands.

### ***Resident Reactions and Returns to Affordability***

Despite the serious repercussions of the 2003 recession, public sentiments in the city were not altogether lamenting. Many long-time residents welcomed the departure of the early Internet industry, and celebrated the slow return to affordability and open inventory in the office market. Housing rents eventually returned to roughly pre-boom levels by 2003, and neighborhood businesses were also able to reoccupy central districts business, many enjoying Class A office space at reduced rates.

As a New York Times article from 2001 describes, "*The summer of 2001 will be remembered here as the season San Francisco returned to normal, or at least its own version of normality. In the South of Market neighborhood, most heavily populated by dot-com businesses, the change has been more dramatic, with commercial vacancies rising to 20 percent, from a record low of 0.6 percent only 18 months ago. In the rest of the city, "normal" means only that rents, commercial and residential, are tapering off -- remaining some of the nation's highest -- but at least apartments are available. Restaurants are cutting prices, and some are closing. At the same time, residents say the city is more habitable: parking has become easier and traffic thinner. In short, this is a city that has slowed -- to "fast" from "blur."*"<sup>66</sup>

In Santa Clara County, Planning Director Ann Draper also called the decline "a healthy adjustment for our economy." Lee Blich, president of the San Francisco Chamber of Commerce, similarly identified a silver lining: "The good news is," he said, "It's never been a better time to come in and get your long-term lease. We've still got a highly educated work force and a great climate. We're still the city that everybody wants to visit, with great restaurants."<sup>67</sup> These reactions indicate the shared belief that the San Francisco economy possesses a natural resilience, partially by virtue of *the power of place*. This notion is likely

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<sup>66</sup> Richtel, Matt. "A City Take a Breath After the Dotcom Crash." *New York Times*. 24 July 2001. Web. 3 May 2014.

<sup>67</sup> Walker, Richard. "San Francisco's Haymarket: A Redemptive Tale of Class Struggle." *ACME Editorial Collective*, UC Berkeley (2008).

connected to the strong political resistance to change in the city, and the many anti-development factions who seek to preserve density conditions, currently at the cost of affordability. And yet, this instinct may also be one key ingredient in San Francisco's "economic resilience" in the past. However, it is notable that San Francisco's tourist industry did falter after the crash, and hotel vacancy rates hit all-time highs in 2005. Even more rapid and transformational changes seem to be taking place today.

Others suggested that despite the departure of tech money and its gentrifying forces in the mid-2000s, the "damage had already been done" in many neighborhoods. "The Mission's identity has been changed. Many of the artists and Latinos who called the Mission home have been scattered to other neighborhoods. The site of the dance studio is vacant, and other building projects that displaced hundreds of people have been aborted."<sup>68</sup> In 2005, San Francisco was actually losing population at the fastest rate of any city in the nation.<sup>69</sup> The archives of the San Francisco Chronicle describe a line of U-Haul trucks departing the city, as the mobile tech labor force essentially packed its bags and left, in search of new professional jobs in Chicago, New York, Raleigh-Durham, and elsewhere. But the city's core population was still in place, and much of the early tech growth was contained in the South of Market district.

A crash of the market *today* would have a much more profound impact on the fabric of San Francisco than it did in the 1990's. This time around, the core business leaders in the industry, including Twitter, Dropbox, Zynga, and Yelp, are located in the city itself, rather than Silicon Valley. Journalists claim that a growing number of young Silicon Valley workers are also moving into the city and commuting out for work. The industry's real estate footprint is also much higher today than it was during the dotcom era.

A CBRE report finds that, in 2000 at the height of the boom, office vacancy dropped to a record low of .6 percent. By 2003, after the crash, vacancy

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<sup>68</sup> Cavanaugh, Francine. "Boom: The Sound of Eviction." Video Documentary (96 minutes, 2002).

<sup>69</sup> Brook, James. *Reclaiming San Francisco: History, Politics, Culture*. San Francisco, CA: City Lights, 1998. Print.

had rocketed to 20.37 percent, nearly the highest in the nation. In the South of Market neighborhood, where early Internet companies like Yahoo and Amazon had clustered, vacancies peaked at 49 percent in 2003 (BT Commercial Real Estate, from the SF Chamber of Commerce). Today, technology companies now fill *22 percent of all occupied office space* in San Francisco, and last year, the sector represented *61 percent of all office leasing*, a historical high. Just from 2010-2012, tech tenants have leased *40 percent more San Francisco office space* than during the five-year dot-com boom.

The industry is also now taking over the city's available commercial inventory at a scale and pace that was unprecedented during the dotcom era. According to the CBRE Group, "*While tech absorbed more than 1 million square feet of space so far this year, other sectors overall gave up 280,000 square feet. Health and education inched forward, but the presence of business services, legal, financial and social services all declined in the past three quarters.*"<sup>70</sup> These trends are further undermining the diversity of San Francisco's economy. A recent CBRE report highlights that these trends could be driven by either the jobs market *or* the current price point of commercial real estate. Either way, the share of tech jobs is steadily increasing, and is particularly disproportionate to other *office jobs* in the city—implying a larger loss of other *professional industries* in the economy. Since 2009, tech has created *23,500 jobs*, or *86 percent of all new office positions* in the city.<sup>71</sup>

This tight accumulation means that the city's risk profile is higher than it ever was during the last peak. If a second departure of the industry were to occur, a real estate market collapse is now distant possibility. There has been little consideration of this fact, or serious attempt to protect and promote the diversification of professional industries. The only other industry receiving real attention is industrial, as the city has made some moves to protect and increase PDR zoning titles for urban manufacturing. Small-scale manufacturing is experiencing a renaissance in the city. But Moretti argues that "local

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<sup>70</sup> McGrath, Richard. "U.S. Tech-Twenty: Measuring Office Market Impact." CBRE Group Inc. Report (2013).

<sup>71</sup> *Ibid.*

manufacturing based on "local product" marketing does not create wealth so much as reflect wealth in local consumer market and community" (2012). If a crash comes, the prospect of rebuilding the metro economy on the back of an industrial resurgence.

These structural challenges are compounded by the speed of growth. San Francisco Planning Director Neil Hurshowy says, "It has been hard for the city to mitigate the upheaval that the tech boom has brought, partially because it has been too much too fast. Most cities in America would do anything to have the success San Francisco has had, but it has happened too quickly, and the city hasn't had time to adapt and change to accommodate it in the way it would like to." The costs could be high, but forecasts of continued growth suggest that there is still time to reassess for future.

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## Chapter 6.

# MANAGING GROWTH FOR RESILIENCE

*“If the factory was the arena of class struggle in industrial capitalism, place is the arena in creative capitalism.”*

-Richard Florida (2013)

### 6.1 Economic Resilience Framework: A Framework for Policy

Based on the lessons we’ve taken from the dotcom era, and the particular pressures associated with local knowledge-driven economies, I conclude that San Francisco needs to adopt a longer-term perspective, rather than pursuing policies that blindly control or amplify current boom conditions. Cities like San Francisco, which are heavily dependent on sales and property tax revenue, are particularly vulnerable to economic downturns. These vulnerabilities are made worse by the fact that so little else besides ‘tech’ is growing in the city. Unmitigated, and under the pressure of the current land market, this trend threatens to further reduce the diversity of the local economy, building stock, and social fabric.

Many advocate for environmental resilience, but *economic resilience* is also crucial. As San Francisco and other cities prepare for periods of “rapid economic development” in an era of hyper capital mobility, cities should consider resilience as a foundation for future growth strategies. The social and economic costs of recession are substantial. Further, growing global integration and technological innovation have resulted in increased economic volatility and rapid economic restructuring in today’s market, requiring deliberate planning for boom-

and-bust cycles (Shapiro & Varian, 1998). San Francisco should learn from the past, to make sure that it doesn't 'give away the store' in anticipation of an overly optimistic future, and to make sure that it has policies in place to weather the next storm.

The concept of resilience has been employed in a variety of disciplines, though most research focuses on *ecological resilience*, when a disruption pushes a system from one equilibrium to another, or *engineering resilience*, when a system returns to a pre-disruption steady-state (BRR Working Paper, 2009). A more appropriate definition for resilience in the context of a complex and adaptive urban system is, *the ability to change or adapt in response to stresses and strains*, rather than simply seeking a return to pre-recession conditions. In contrast to the pre-event character of *mitigation*, resilience emphasizes ingenuity and resourcefulness *applied during and after an event*.

The Building Resilient Regions network, sponsored by the MacArthur Foundation, has published several reports on the concept of *metropolitan economic resilience*, and has published two key findings that relate to cities. First, "*The greater the income gaps between rich and poor, the more likely the region is to lose jobs during economic shocks and the longer it will take to recover.*" Second, "*Responding with new policies after a regional downturn is less effective than insulating a region against downturns.*" In other words, their research suggests that relative income equality may be a critical moderating factor in producing resilience.

An economic resilience strategy for San Francisco would involve managing the short-term run up of the market to control for distortions that would otherwise reshape baseline conditions, such as the availability of affordable and rent-controlled housing. It also requires recognizing diversity as an important and desirable part of the city's culture and economy, and requires refocused attention on the migratory condition of long-time residents. Several studies examining industrial structure and economic performance in the 1990s have concluded that *economic diversity is significant and beneficial* to most regions (Glaeser, et al 1992). Tim O'Reilly, founder of O'Reilly Media who coined the term "Web 2.0,"

has written that “it is a general principle of ecology that an ecosystem is stable not because it is secure and protected, but because it contains diversity.” In order to protect and retain its ethnic populations, particularly its African American resident and business community, which has dropped by 60.7 percent in the last decade, targeted social programs, procurement strategies, and business support initiatives are needed.

The first step in this strategy, however, is a thorough inventory of the urban system, in order to take stock of its rigidities, vulnerabilities, and base conditions. I take this in the following section, focusing on the region’s most pressing and complex problem: the regional housing shortage and crisis of affordability. Housing markets have come to occupy a central role in our understanding of labor mobility, household wealth accumulation, and urban segregation (Saiz, 2007; Oswald, 1994). And yet, current policies championing the San Francisco’s high-growth industries has lacked a deliberate consideration of their impact on this fundamental dimension of economic resilience and equity.

The following ‘inventory’ highlights the systemic barriers to creating a more elastic housing market, which I argue is fundamental to preserving the city’s diversity and economic health in the case of a downturn, with implications for what needs to be changed/addressed by policy. In the concluding chapter, I offer a few specific recommendations for operationalizing an economic resilience strategy.

## **6.2 Taking Stock of the Housing Market**

Much of the anger and controversy over the Mid-Market exclusion ultimately comes back to the question of affordability and shared access to the city. The influx wealth in the tech industry has contributed to the rise of rents and housing prices in the city—but San Francisco’s housing shortage ultimately dates back 30-40 years, predicated on a long history of NIMBYism from both the old wealth of the city and the suburban communities nearby. Although these dynamics predate the current tech boom, what this brings to light is that economic policy intended to create jobs must also account for the pressure of population



growth in order to ensure an equitable outcome.

In the context of this analysis, the history of San Francisco's anti-development politics, and the deeper structures governing supply and demand in the Bay housing market, are crucial to understand in order to fully analyze the motivations, shortcomings and comprehensive impact of the city government's recent economic development initiatives. The narrative also sheds light on what can be done in San Francisco to better the social outcomes of these policies, and how the growth of the tech industry fits into this puzzle. The following chapter steps back again to examine how high-technology clusters and "knowledge economy" sectors create and limit economic opportunity in an urban context/at the metropolitan scale.

According to members of the advocacy group *sf.citi* (Interview, January 2014) and additional historic accounts, San Francisco's orientation towards growth control has been entrenched for over 50 years. Today, more than 80 percent of the city's housing stock is either owner-occupied or rent controlled, (with roughly thirty-five percent homeownership rate in the city, and about 75 percent of the rent stock under rent control.<sup>72</sup>) Naturally, this gives homeowners a strong economic incentive to restrict supply, since it supports the price appreciation of their property. Terplan suggests that the city's height limits, its rent control and its complex permitting process are all products of tenant, environmental and preservationist movements that have also grown up over many decades. As a result, over the last twenty years, the city has added an average of only 1,500 units per year, while the population has grown by 32,000 people, from 2010 to 2013 alone.<sup>73</sup> In 1986, the city also passed a resolution to control the amount of new commercial real estate that could be built in any single year, also restricting the office and retail space markets.

In a comprehensive piece on the city's housing crisis, writer Kim-Mai Culter describes the underlying dynamics that support anti-growth sentiments in the city. As she puts it, "*Many have put the bulk of their net worth into their*

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<sup>72</sup> 172,000 units of the city's 376,940 housing units (Culter, 2014).

<sup>73</sup> Census Quick Facts, San Francisco Department of City Planning.

*homes and they don't want to lose that, so they fight any new in-fill development through hundreds of politically powerful neighborhood groups. Then, the rent-controlled tenants care far more about eviction protections than increasing supply. That's because their most vulnerable constituents are paying rents that are so far below market-rate, that only an ungodly amount of construction could possibly help them. Plus, that construction wouldn't happen fast enough — especially for elderly tenants... So we're looking at as much as 80 percent of the city that isn't naturally oriented to add to the housing stock."*<sup>74</sup> Culter further suggests that the legislative measures to protect vulnerable residents also add to the problem—since “both Proposition 13 and rent control insulate homeowners and rent-controlled tenants from dramatic tax or rent increases”—which further undermines the political will for building more homes, even when the market is undersupplied. Finally, since gentrification raises the gap between market-rate rents and rent-controlled rents and strengthens the financial incentive for eviction, liberal activists also fight against new development projects that aren't directly associated with displacement.

Meanwhile, the larger housing shortage across the Bay Area also plays a critical role in mediating land demand in the city. Several infill development and affordable housing projects have recently been shot down in Marin County and San Mateo. In Mountain View, the city is also planning to build new office space that will attract thousands of jobs to the area, while their zoning provisions only allow a fraction of the necessary housing to accommodate that population growth.<sup>75</sup>

The seemingly simple solution is to build more housing, a strategy supported by the non-profit SPUR and other pro-development advocates across partisan lines. In an obedient and classic market model, market-rate construction should alleviate demand for the city's existing housing stock and stabilize prices. As many know, the current market is dramatically undersupplied, and new

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<sup>74</sup> Culter, Kim-Mai. “How Burrowing Owls lead to Vomiting Anarchists.” *TechCrunch*. April 2014.

<sup>75</sup> “Bay Area Job Growth to 2040.” One Bay Area Foundation. February 2012. Web.

construction should slowly reduce prices. However, beyond restrictive zoning and limited developable land, the city's progressive "discretionary permitting" policy and concession-negotiation process also create formidable hurdles for developers. Libby Seifel, CEO of Seifel Consulting, notes that, while the community review process provides an important mechanism to redistribute wealth through a neighborhood, new development projects are often delayed or scrapped in the process. Cutler similarly highlights that "these concessions are being negotiated housing development by housing development, which slows the city's ability to produce housing, both market-rate and affordable, at scale." (ibid)

When one considers the appropriate role of government in this process, as this paper intends to do, part of the story seems to be the paradox of "progressivism." The legacy of this political orientation, or continued manifestation, in San Francisco is expressed in the city's robust ballot processes, its rent control policy, and its social 'tolerance' seen in legislation that allows public nudity, for example, or its passive approach to the homeless community. However, many of these positions indicate passive measures of protection or tolerance, rather than proactive equity-oriented policies.<sup>76</sup>

Longtime San Francisco resident and political scientist Richard DeLeon has written of the city: "*San Francisco has emerged as a "semi-sovereign city" — a city that imposes as many limits on capital as capital imposes on it. San Francisco's progressivism is concerned with consumption more than production... meaning more than materialism... Its first priority is not revolution but protection — protection of the city's environment, architectural heritage, neighborhoods, diversity, and overall quality of life from the radical transformations of turbulent American capitalism.*" The Mid-Market program is a pro-growth strategy, but the uneven departure from a largely protectionist political system creates very uneven gains for development.

Furthermore, it seems like the complex systems that protect community

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<sup>76</sup> The city spends \$165 million a year on homelessness, but only invested \$275 million in affordable housing this year ... meaning that it spends more than half as much on maintaining social services rather than addressed housing demand. (San Francisco Department of Planning; Libby Seiffel.)

‘participation’ and activism, somehow excuse the city from taking an active hand in implementing the necessary structural changes to support long-term diversity and equality. Top-down planning is out, and municipal departments across the country shy away from ‘imposing’ a specific vision of the urban future, but the San Francisco government, like many others, continues to act behind the scenes as a quiet facilitator of programs and projects that have catalyzed redevelopment similar to the urban renewal scale, as seen in the Mid-Market. These quiet deals suggest an oddly ambivalent approach to supporting change, and a much stronger market orientation than is publicly acknowledged.

Meanwhile, coalitions from both sides of the political spectrum exert considerable influence over the existing development channels, and continue to fight densification and new construction, as it would be supplied by the market. Affordable housing advocates say that they would support more new development *if* it included more substantial provisions for below-market-rate units. Supervisor Jane Kim, who represents the Tenderloin, is currently advocating for legislation that would ensure a ratio of 30 percent affordable housing to 70 percent market-rate housing (compared to the current 12% affordable unit requirement for developments with over 10 units). However, SPUR has commented that, due to San Francisco’s unusually high construction costs, estimated at \$500,000 for an 800-ft square unit, this ratio would mean that projects won’t break even and developers won’t agree to build, stalling development further. In other words, more aggressive inclusionary housing policies would require significant public subsidies, which ironically strengthens the city’s incentive to pursue to high tax-revenue economic development strategies, much like the Mid-Market tax exclusion program and other tech-courting subsidies.

Finally, other factions in the city contest the idea that new market rate development will bring down prices—suggesting that, in San Francisco, the logic of supply and demand will not apply. The basic argument is that the city cannot “build its way to affordability” since, left to its own devices, the market will only produce housing that accommodates the wealthiest consumers. In a time of rising inequality, any market-rate unit will be increasingly out of reach, even for middle-

class residents. Supporting this notion, the Council of Community Housing Organizations recently published a statistical analysis finding that "raw, additional construction will not make housing more affordable to working-class or lower-income San Franciscans" (2013). This has become yet another rationale against development, shared by several non-profit leaders, including the influential SF Bay Guardian Editor Tim Redmond. On the other side, Seiffel cites several studies of San Francisco housing production and prices and concludes that more construction probably won't make prices go down in the near-term, but it will prevent further skyrocket increases.

Again, many of these raw dynamics are not unique to San Francisco. How American cities handle this shift will be an central question in the next several decades—in the context of global economic changes that are polarizing the workforce into highly-skilled "knowledge workers," disproportionately benefitting from growth, and lower-skilled "service workers," whose salaries are often pegged to static norms set by the minimum wage.

### **6.3 Discounting Risk in Policy Cost-Benefit Analysis**

As cities continue to pursue the acceleration of growth in the knowledge-driven economy, *premised* on creating low- and middle-skill jobs solely through multiplier effects, the problems we've identified will persist. Proactive, structural policies are needed, but difficult to implement. Regulation theory comments on the social and institutional systems that are used to *mitigate crises associated with capital accumulation and shifting economic relations*. The theory states that, "Crisis tendencies may lead to an actual crisis, which has the power to produce lasting change in the character of a system." However, Goodwin and Painter (1996) claim that the "role of the state" is often to promote *system reproduction*, rather than system change.

As policy-makers adapt to a new era of rapid and volatile market growth, coveting a high-skill labor force that is also highly mobile while facing the perennial challenge of the tax-revenue orientation of local government, one important change could be a conceptual shift in the discount-rate applied to future

policy analysis. The cost-benefit analysis of future policies should incorporate the new risks of this era in their internal rate of return—particularly the risks associated with the probable pop of the information-communication technology industry bubble. When mobilizing public capital in pursuit of growing these industries, what are the long-term impacts on the real estate market and inventory that are difficult to reverse? What are the public benefit and social service costs of supporting an increasing population of the poor and disenfranchised—and what will those costs be if the market crashes? The city may have to pay twice. Finally, how do migratory flows of the middle-class change in respond to new housing market pressures, and what will this mean for the city if the currently coveted knowledge-sector and extreme wealth-generating classes abandon ship? These are risks that the City of San Francisco would be wise to consider in crafting its vision and agenda for the future.

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## Chapter 7.

# CONCLUSION

### 7.1 What is the City Doing Now? Political Wins and Enduring Problems

Many things that weren't considered politically feasible for years are now gaining traction in San Francisco, partially in response to the visibility of recent protests. In January 2014, Mayor Ed Lee passed a "seven-point housing plan," promising to build or rehabilitate 30,000 housing units in the next six years, one-third of which will be permanently affordable to lower and moderate-income families. He also convened a working group to "actively tackle" the housing shortage with one proposal to use city-owned land for new affordable housing developments. The administration has recently doubled their assistance program to first-time home buyers, and have also voted to increase Ellis Act relocation compensation. Airbnb, Lyft and Uber, formerly criticized for their law-breaking business models, are also now being incorporated in the city's existing regulatory and tax infrastructure, after significant criticism. (Airbnb is will now pay the city's 14 percent hotel tax.)

From the tech community, several companies are making efforts to save their public image, and making sizable charitable donations toward social causes. Google recently donated \$6.8 million to fund free MUNI rides for low-income youth, and launched a *Bay Area Impact Challenge* to March to grant \$5 million to 25 Bay Area non-profits. Marc Benioff, the CEO of Salesforce, has challenged the city's tech industry workers to raise \$10 million dollars for anti-poverty organizations, and Zendesk recently launched a new mobile site for homeless services called LinkSF, in partnership with the city.

According to local interviews, the city is pursuing two major policies targeted at the Mid-Market/Tenderloin district, which have come in response to the recent Web 2.0 boom and its discontents. The first is an assessment of a potential subsidy for *middle-income housing* construction. The second is the Office of Economic and Workforce Development's new "*Central Market Community and Economic Development Strategy*," focused on *growing local entrepreneurs* and small businesses which are "owned by, employ, or serve low- and moderate-income people." The city plans to use Community Development Block Grants to capitalize a revolving microenterprise loan program, provide prompt and responsive legal assistance and lease negotiation services, increase support for production, distribution, and repair (PDR) businesses, and establish physical incubator spaces for targeted business sectors. These are wise strategies, but further action is needed.

## **7.2 Assessing Options for the Future**

The tech companies' protest-rung donations are good, but they are clearly not enough. The city is making progress addressing immediate demands, but systematic issues remain. The city could go full throttle, embrace gentrification and accommodate developers. It could also continue maintaining the status quo, offering no new development incentives and letting the boom ride its course, while mediating the conflict between the rising protest movement and the tech industry elite. In the latest assessment, this seems to be the City's path of choice, as it uses blunt instruments of redistribution, like the recent Mid-Market Community Benefit Agreements, to address immediate neighborhood demands, and implements short-term solutions like increased eviction protections, Ellis Act Reform, increases in homebuyer down-payment assistance or the push to stall the Google shuttle program under CEQA.

These are important initiatives, but they do not amount to systems-level change, nor do they address the risks posed by the future. They will not increase or protect ethnic diversity or make the city more affordable for middle- or working-class residents, nor does it address the undersupply of middle-skill jobs.



In other words, the city can regulate the profiteering of abusive landlords, but for a long-term solution, it must address underlying issues of supply and elasticity. This is due, in part, due to the fact that the city must contend with the gridlock of overlapping regional bureaucracies. But it is also a symptom of entering the mitigation process too late, after the market is already hot and the pitch of social protest requires reactive crisis management.

One primary take-away from this report is that while tech-fueled economic growth can be good, gentrification carries enormous costs for certain communities, and has long-term effects on the stability of the urban real estate market. If these *risks and costs* aren't being accounted for in a purely market-based system, then the political system has a responsibility and an interest in intervening. With the continued densification of cities, the relationship between rapid economic development and the housing market will be increasingly important. As champions of innovation-based economic development continue to promote the secondary benefits of knowledge sectors, public officials should recognize that the distributive potential of this growth rests partially on inclusive housing policies that protect urban diversity and economic access.

It has been shown that the promised spillover effects of the tech industry are reduced in San Francisco, potentially due to the fact that so much disposable income goes toward the cost of housing. San Francisco's Chief Economist, Ted Egan, estimates that each tech job in the city produces about two extra jobs, rather than five. Culter writes that *"If the entire Bay Area region had a more elastic housing supply, it would not only make the cost of living affordable for most people, but it would allow for more people to participate in the economy, and save or spend money, rather than moving somewhere farther from opportunity."*<sup>77</sup> Prioritizing new affordable and middle-income housing is therefore important, not only to preserve diversity and ensure stability, but also to reap the full benefits of the industry's growth.

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<sup>77</sup> Culter, K. "How Burrowing Owls lead to Vomiting Anarchists." *TechCrunch*. April 2014.

Of course, this is not simple. In the Bay Area, there is a long history of politics and policies orientated toward *growth control* and preserving the status quo, limiting real estate development and increases in density. And yet, San Francisco's recent economic development policies have been positioned to *accelerate growth* in high-impact, high-wage sectors. In combination, this is a hazardous mix that jeopardizes the long-term health and adaptability of the city, in the face of uncertain growth in its dominant, cyclical industries. However, the story is also not new. It is part of a cyclical narrative of the battle and balance between the 'urban growth regime' and the communities that stand to win or lose. But lessons can be learned from the past. In an era of rapid change and development, these dynamics and market rigidities should have been addressed *before* the run up the market, and need to be addressed now.

As mentioned in the previous chapter, a strategy for economic resilience will require first a deeper analysis of baseline conditions and vulnerabilities, and second proactive policy to establish cooperative regional governance structures, new affordable and middle-income housing, and targeted densification. Long-run investments in public STEM education have accompanied innovation-based economic development policies in other cities, and are also important measure to prepare more workers to participate in future waves of tech industry growth in the city. The utility of traditional workforce training strategies are limited by the nature of the high-tech 'knowledge economy.' Finally, the city should think creatively about new models of workforce training and development that are adapted to Information Age, and respond to the rise of contingent and 'portfolio work,' as well as new structures of social networking, communication, and asset and skill-sharing.

### **7.3 A More Resilient Future: Potential Strategies**

In summary, the Bay Area has many challenges: a lack of investment in transportation infrastructure; a lack of investment in public education since Proposition 13; a gridlock of regional governing institutions; and most urgently, the extremely high cost of housing. Equitably managing growth in this

environment, in order to protect the more vulnerable members of San Francisco society, requires legislative action and budget revisions to reinforce the social safety net at the local and regional level. Typical options include higher minimum wages, the pursuit of new living-wage laws, expanded health care coverage, improved job training, and the reform of unemployment insurance and other social insurance programs. Further attention should be paid to the condition of flexible and contingent workers and contractors, who support and participate in the tech industry, and are particularly vulnerable to market fluctuations. The spike in public insurance costs in 2002 suggests that many workers were left without employer protections. A second market crash today would likely create similar and more extreme conditions. To address the social risk these individuals face, and to insulate the public budget, the city should support provisions to extend employer health care benefit requirements, as well as public insurance budgets.

Priority should also be placed on preserving demographic and socioeconomic diversity, and diversifying the local economic base while building bridges with tech community. It may make sense to think about supporting “tech” not as an industry in itself, but rather as a series of tools that can be used within other industries. In the current development pipeline, particularly in areas like the Mid Market, reorienting community benefit agreements to produce *tangible, fixed community assets* and concrete education-based community engagement programs, could help to bridge the city’s cultural and digital divide, and better leverage existing growth conditions.

### ***Regional Governance and Tax Coordination***

As many have argued, the Bay Area needs to start employing a regional approach to economic development. Regional economic development strategies should require regional governance structures to regulate and redistribute benefits. As SPUR has stated, real change on taxes, transit and housing in the Bay Area will require a region-wide body with more political teeth. (The organization recently wrote that, “It’s time for the Bay Area to adopt a real economic development strategy, with proactive measures to create jobs, rather than reactive

ones meant to keep them.”<sup>78</sup>) Regional policies should also address the need for more deliberate education and entrepreneurship programs to prepare a broader swath of workers for jobs that leverage the region’s strength in innovative and tech-based industries.

In a more radical move, the city could also seek a regionally-coordinated tax on real wealth (minus debt), to redistribute the gains from growth. In general, regional coordination on taxes could help to reduce the recent ‘race to the bottom’ on business taxes, and the zero-sum zoning policies have limited new affordable housing construction. Deeper coalition building and visioning around the region’s housing market should also be pursued, to strategically developing more walkable commuter cities with good regional transit.

### ***New Housing and Targeted Densification***

Urban innovation-based economic development strategies that attract a high-wage workforce should require additional provisions to maintain affordability for incumbent residents. The city’s housing policy should focus on preserving and producing more affordable housing, particularly units for middle-income households. Subsidies for moderate-income housing are already on the city’s agenda and should be pushed further. The city also needs to create conditions that allow the housing stock to expand in response to demand, in part by reviewing density limits in targeted areas of the city, and working toward a regional housing plan, while providing for the necessary local and regional transit to make this shift feasible and attractive.

The city should reduce regulatory barriers and delays that impede land assembly and new housing development, including excessive delays caused by neighborhood opposition. One approach would be to make the citywide housing strategy explicit (through the comprehensive plan and zoning ordinances), work with neighborhood organizations to develop area plans consistent with the citywide vision and strategy, and then expedite the approval process for developments

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<sup>78</sup> Terplan, Egon. (2012). *The Urban Future of Work*. SPUR Report, *SPUR*.

consistent with these area plans—supporting the development of housing at a mix of income levels.

Although the city is faced with competing demands for limited resources, it should give priority to capital investments in infrastructure projects that support new housing development. Finally, it should implement inclusionary zoning requirements to include a reasonable share of moderate-cost units in all new construction and major rehabilitation projects. The city should make it a priority to design and implement a system that responds to local regulatory and market conditions.

Looking forward, future economic development initiatives to attract and retain jobs should include matching plans to manage the growth of jobs with the growth of inventory. From an economic resilience perspective, there is some danger to promoting new density and construction if the trajectory of job growth and office space demand is uncertain. However, the condition of the housing market after the dotcom boom suggest that the current market is so over-inflated that even a recession will not create major liabilities for the stability and strength of the housing market. The *conversion* of office space into residential should be managed from a resilience perspective, however, as local analysts suggest that boom-time demand for housing is cannibalizing an increasing share of commercial space inventory.<sup>79</sup>

### ***Small Business Development and Middle-Skill Entrepreneurship***

In response to the decline of stable low- and middle-income jobs nationwide, economic development professionals have often turned to entrepreneurship strategies as a way to generate wealth in low-income communities. These strategies often include funded business training programs, developing new business incubators, and forming collaborative partnerships to support the “entrepreneurial support ecosystem.” San Francisco is currently pursuing a similar policy, anchored in the Tenderloin/Mid-Market district and

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<sup>79</sup> “Interview with Egon Terplan” Personal Interview. January 2014.

promoted city-wide, as one way to support middle-skill job growth and industrial diversity.

In response to uneven growth associated with its TechTown Initiative, the City of Detroit is also pursuing a similar policy, with the goal of “pulling resources into the Innovation Corridor, and then pushing business and technical services out to neighborhoods, to promote a broad entrepreneurial ecosystem across a range of industries.” (Interview, Dave Egner, New Economy Initiative). Initiatives to bring the low-income workforce into the entrepreneurial space are perhaps more scalable and immediate than other workforce development strategies to create low- and middle-skill software and IT job opportunities in existing tech firms. The city should be strategic about implementing this policy, and make sure that the goals and outcomes are clear and serious. In addition, bigger-picture thinking around future forms of workforce development that respond to new realities in the structure of urban work should be pursued, as I describe in the final section of this chapter.

### *New Tax Instruments*

In a report from 2011 on *Strategies for a Vital Economy in the Central Market*, SPUR proposes a strategy to leverage the new office growth by capturing new property tax value through an Infrastructure Financing District,<sup>80</sup> a reconstitution of the city’s former redevelopment zones. This revenue would be used to repay bonds for a variety of investments in the neighborhood, including rehabilitation and development of new affordable housing. They also suggest creating an arts district to “transform the Mid-Market into a cultural hub for the City”— referencing similar strategies used by the Downtown Brooklyn Partnership in DUMBO.<sup>81</sup> None of these ideas have been revisited or

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<sup>80</sup> On February 18, 2014, the Governor of California passed a new law that amends Section 53395.4 of the California Government Code to provide a new mechanism to finance projects that would have otherwise been financed by redevelopment agencies through infrastructure financing districts (IFDs), now allowed to finance projects located within a former redevelopment project area.

<sup>81</sup> Padilla, Elvin. "Four Ways to Transform Mid-Market." *SPUR*. 20 July 2011. Web. 23 May 2014. Retrieved From: <http://www.spur.org/publications/article/2011-07-20/four-ways-transform-mid-market>

implemented. Instead, the city says that their priority now is *managing* the rampant growth in the area.<sup>82</sup>

## 7.4 Innovation for a Broader Public

There are important arguments to be made for the vital intellectual and technological contributions that knowledge and tech-sector workers offer the economy and society, in addition to their taxes and charitable contributions. Further, as industry pundit Jeffery Phelleps has written, “*Innovation isn't just a cause of inequality, it is also a bridge. Innovation doesn't always create more expensive products - often innovation creates better products at less cost that deliver more value, to create a better standard of living for everyone.*”<sup>83</sup> And yet, Allison Areiff, Director of SPUR, writes that, “*This city may be the fulcrum of innovation, but little of its disruptive thinking is doing anything to address that urban reality... The further the tech sector gets from the reality of the problems it's engaging with, the smaller the piece of the problem they'll end up actually fixing.*” In part, this may be attributed to a lack of demographic diversity within the tech industry workforce.

Roberto Unger, touted as one of the world's leading political thinkers, has recently promoted a new concept of “High-Energy” or “Empowered Democracy,” underpinned by five institutional innovations that would drive structural changes the political system. Briefly, he advocated for raising the temperature of politics, hastening the pace of politics, combining central power with local initiative (with the ability for particular segments of society to opt out of the political process and propose alternative governance solutions), establishing a distinct authority to rescue excluded and disadvantaged groups (established at the state level), and gradually enhancing representative democracy through participative democracy (a form of engagement where people are directly involved in national and local decision-making without jeopardising individual liberties.)

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<sup>82</sup> “Interview with Jason Klein” Personal Interview. January 2014.

<sup>83</sup> Phelleps, Jeffery. “Innovation and Inequality Cause and Effect.” *Frog Design*. January 2014.

Unger further elaborates on these institutional features to suggest several examples of structural changes that should be adopted. One includes what he refers to as “economic vanguardism outside of the economic vanguard,” suggesting that “broader parts of the economy should be able to access the tools and resources of economic innovation (such as technology) that is currently limited to advanced economic sectors.” He also suggests an “alternative form of public service delivery that moves away from the current bureaucratic systems that provide lower quality services to a model of provision that encourages greater participation and experimentation from civil society.” Finally, he views small and mid-sized firms as the engines of economic growth and advocates for an institutional framework that would give these firms to access to knowledge and financial resources, potentially through “decentralized government-funded financial institutions that act like venture-capitalists.”<sup>84</sup>

A real belief that innovation and high-tech agglomeration will lead to rich opportunities across the economy means that new workforce development strategies should align with anticipated shifts in occupational structures. New opportunities should be identified to leverage new technologies and other innovations in products and processes, to benefit and transform *public organizations*. In current day San Francisco, “innovation” as a mindset and a process of change, seems to be siloed in the colorful and decadent office headquarters of the city’s commercial technology giants. Greater efforts could be made to diffuse the ‘culture of innovation’ more broadly, into the city’s public agencies, institutions, and non-profits—fostering a more creative and open environment driven by data and experimentation. Restructuring departments and public organizations to be smaller, more nimble and more flexible could also help policy-makers and planners *themselves* adapt to the realities of the present day.

Finally, as municipal governments increasingly reorient their place-identities and public expenditures around the pillars of technology and innovation, we also need new models to think about broad-based *participation* and inclusion

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<sup>84</sup> “Big Thinkers: Roberto Mangabeira Unger on Empowered Democracy in the UK.” The Institute for Government, 15 Nov. 2013. Web. 23 May 2014.



in these sectors—not just the service sector jobs that may be generated. Technological change is leading to a restructuring of the labor force, and cities should reorient their workforce development and education programs to better meet these new demands of the 21<sup>st</sup> century. In conclusion, San Francisco offers one narrative, which reflects broad trends across many American cities: the rise of innovation and technology-based sector, the concurrent widening socioeconomic divides, and the increasing volatility of market conditions in an era of hyper capital mobility. The lessons learned from this analysis will hopefully inform the challenges policy decisions facing the City of San Francisco today, as well as other cities in the future.

## Appendix 1.

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### Tracing Place: A Short History of the Tenderloin

The Mid-Market Street Corridor extends through the Tenderloin, and lies between the downtown financial district and the South of Market (SoMA) neighborhood. Until Twitter moved in 2012, the neighborhood had been identified as the city’s “skid row,” long known for its check-cashing stores, and the single-room occupancy hotels and non-profits that house and feed the city’s poorest residents. These institutions have been politically protected in the Tenderloin for decades, but recent policies suggest that this precedent is changing.

The Mid-Market/Tenderloin District was once a thriving commercial district in the mid-1900s, but declined into poverty and abandonment in 1970s, when it became the center of the city’s drug scene. Don Seaton, Director of the Central City Hospitality House, a historically influential neighborhood service agency, said in 1971, “The Tenderloin has no social structure of its own. It’s not a community and never will be.”<sup>85</sup> This seems to be the continued perception of newer San Franciscan residents and public commentators, serving as a justification for larger-scale redevelopment.

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<sup>85</sup> Brook, James. *Reclaiming San Francisco: History, Politics, Culture*. San Francisco, CA: City Lights, 1998.

In the wake of urban renewal battles in late 1970s, including the nearby Yerba Buena Center redevelopment, the Tenderloin community began to self-organize and rebuild, alongside an influx of Southeast Asian immigrants who started small businesses in the area.<sup>86</sup> During this time, neighborhood groups and labor activists organized to pass several important anti-gentrification measures that have had an enduring impact on the neighborhood. Ellen Huet suggests that the most critical measure was a proposal to end the Uptown Tenderloin's long-standing 'downtown commercial zoning,' which had allowed 40-story high-rise towers to be built throughout the community.

The new zoning plan was enacted in 1985, and immediately reduced most neighborhood heights to 80 feet. New tourist hotels were banned, as were *nonresidential uses* above the second floor. Huet claims that when these land-use restrictions and tenant protections were added to the neighborhood's "unique absence of homeownership opportunities, a feature of most gentrified neighborhoods in America," activists and residents believed that the pending revitalization would benefit low-income residents.<sup>87</sup>

However, hopes in the community's progress proved illusory, and the area again experienced a wave of disinvestment and decline during the national recession of the 1990s. Later plans for "incremental" revitalization in the early 2000s, including main street improvements, a redevelopment zone, and the designation of a cultural district, also failed to attract private capital or revive business activity. In an interview, Egon Terplan highlights the fact that previous cultural district strategies were able to lure some arts institutions to the area, but failed to attract the "artists" themselves. Deep issues of homelessness and crime underlie the chronic disinvestment in the neighborhood—and yet, the "Twitter Tax Break", along with pent up demand, was able to reverse this pattern.

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<sup>86</sup> *ibid*

<sup>87</sup> Huet, 2014.

Today, the neighborhood is characterized by a stark juxtaposition of decay and development, with new industry and commuters, but the persistence of old problems. It remains to be seen whether the City will invest new revenue streams from development in the area to address the more systemic issues facing the area's incumbent community, or whether they will be pushed out to other parts of the region. Several city officials cite the fact that the explosive nature of growth in the commercial and residential housing markets has led them to a defensive position, negotiating community and developer demands, rather than strategically implemented instruments for redistributing or recapturing wealth.

In various articles, some claim that the neighborhood is protected by its significant stock of low-income housing, much of which is protected by rent control and/or "owned by nonprofit organizations unlikely to convert it to market-rate housing" (Egon Terplan, SPUR). However, San Francisco's rent control policy does not extend to non-profits, and the neighborhood's high vacancy rates open the door for new development. All new residential development in San Francisco is market-rate, says Egon Terplan, "So the character of the Mid-Market will inevitably evolve with market." Jason Klein, Director of the Office of Economic and Workforce Development, has said that the city is working with the non-profit and small business community to advise them on establishing long-term leases, but that otherwise their hands are tied.

## **Appendix 2.**

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### **Digital Literacy, Innovation Industries, and Inclusion**

Concerns over the geographic and social distance between “21<sup>st</sup> century growth nodes” and low-income communities, has incited new debate around the dynamics of exclusion in the digital economy, and the need to create broader engagement and opportunity. This appendix focuses on the educational systems and workforce development programs that support (or fail to support) broader *direct* inclusion in new high-tech and tech-based industries.

Increasing focus has been directed toward the lack of racial and economic diversity in high-technology sectors, and how to appropriately use education and workforce development strategies to increase inclusion in web-based industries. According to the website “Dual City,” tracking the rise of tech in San Francisco, the City’s technology workforce is 69 percent male, 72 percent white, and 97 percent without kids. Broadly speaking, today’s policy solutions fall in two categories: the first are shorter-term workforce development strategies, largely focused on retraining existing low-skill workers for low-barrier jobs in IT services and advanced manufacturing, and the second are longer-term education initiatives aimed at increasing STEM content in public school curriculums, getting more youth through college-level, and increasingly digital literacy through after-school

groups and programs. Both strategies are informed by the larger debate, prefaced earlier, about the role and relevance of workforce development and educational strategies in the post-industrial economy.

Advocates for early STEM education and other creative youth programs like Black Girls who Code or FabLabs for America, argue that true economic inclusion means investing in long-term strategies to get “21st century skills” front and center in the education of *all* American youth. Along these lines, Zendesk is now offering a substantial “coder training” program for youth in the Tenderloin—written into its CBA, with is one of the only agreements that has been lauded by community members. In places like Philadelphia, New York, Boston, and Austin, mayors have shifted significant (relative) resources to support science and tech education to “*prepare disadvantaged youth for good jobs in the STEM economy.*” These initiatives are crucial and should receive investment, but given the deep systemic programs in our public education system, we are a far way from realizing or assessing the success of these initiatives (site). They can’t address the needs of communities now.

Current tech-oriented workforce development and training programs have primarily focused on the “IT Skills Gap,” and are intended to low-income workers and disadvantaged youth and adults get on the bottom rungs of the IT skill ladder, so they can then climb toward “good, family-supporting jobs.” Most provide standards-based training for “technical level” jobs in computer repair, service, and other support occupations, often where employers expect candidates to have an “A+ credential.”

The skill development pipeline for these service and support functions is relatively short, which has helped garner interest among workforce development organizations. On the other hand, self-assessments from the field itself have highlighted that current programs range dramatic in ambition, quality and success, that “computer careers are not for everyone,” and the relative demand for these

jobs is limited and may be shrinking. More cutting-edge employer-specific programs like IBM's P-Tech program, prepares local workers for jobs at IBM through a tailored software and customer program with inclusive hiring standards.

Workforce development is recognized as a necessary component of our nation's recovery efforts if low-income, low-skilled workers are to fully benefit from new job opportunities. However, there are limits to this strategy within the tech industry, particularly in the current programmatic models that exist. Workforce development training is only appropriate for certain subsectors within high-tech, often not the ICT and design subsector that concentrate in cities, and the notion that "everyone should just learn to code," championed by some members of the San Francisco tech community, is both unrealistic and perhaps unnecessary.<sup>88</sup>

Egon Terplan has stated that, "Workforce development programs are useful when there are specialized skills that the market doesn't deliver. [But] companies are moving to the city in part because of the quality of the labor force, not necessarily the quality of workforce development programs that can provide that labor force. *The city's ability to deliver trained workers is not important to these companies.*" In other words, they are hiring software engineers that are coming from Berkeley and Stanford, and the training opportunities for lower-skill IT jobs (via programs like the A+ Certification) are limited within these software and design subsectors.

I argue that long-term investments in STEM education at the middle- and high-school level are needed, *in addition to* more creative thinking about how to workforce development programs can be re-invented to better match the needs of the industry and current capabilities of low- and middle-skill workers. This may mean focusing on creating distributed brick-and-mortar spaces to support social networking, to focus on tackling digital literacy more broadly, to support a new

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<sup>88</sup> Interview with Tenderloin tour-guide: "We don't want to sell dope on that corner. But we can't go to Twitter. Our kids on that corner, they can learn how to code. Teach us how to code! People ask me, 'What can I do?' Teach us how to code. The only difference between you and that girl on the corner: you can code."

wave of “portfolio workers” who may drive an Uber cab at night and run a liquor store during the day (as one interviewee described), and to focus on supporting *digital and non-digital entrepreneurship* as a more immediate and feasible to increase opportunities for wealth creation, within the context of a tech-oriented local economy.

Shannon Spanheke, Director of the San Francisco Civic Innovation Department, says that her department is working on this project, which she calls “*the wild west of workforce development*,” and many of these concepts have come out of our interview. Teresa Lynch, at MassEconomics, has also described the new “*Blue Collar Innovation Spaces*” that the City of Atlanta is trying to develop, which would provide informal ‘co-working’ environments with shared tools and facilities for low- and middle-income entrepreneurs and “makers,” to support various kinds of professional development, skill-training and skill-sharing programs.



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