Mayor's Office of Economic and Workforce Development

Sustaining Our Prosperity:
The San Francisco Economic Strategy

November 1, 2007

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Mayor's Office of Economic and Workforce Development

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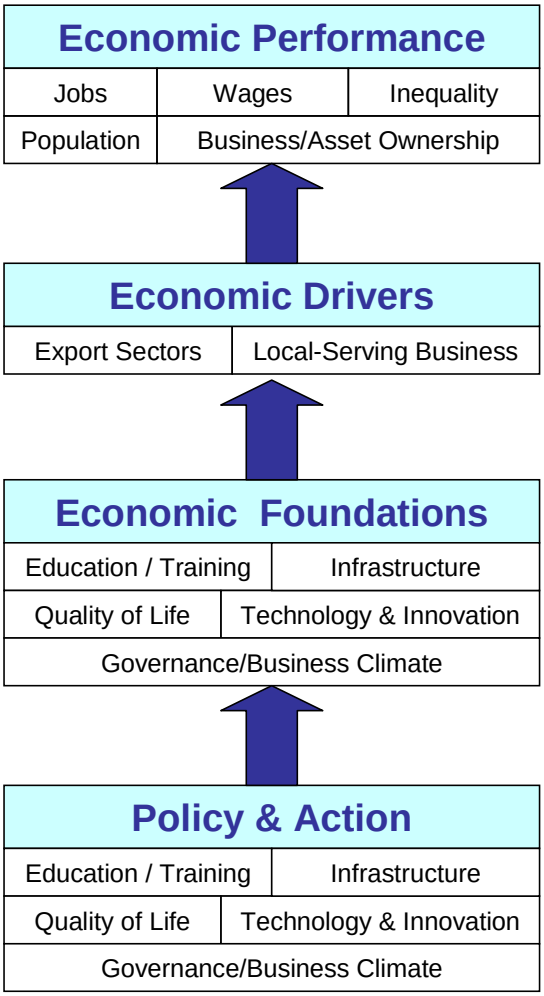
Executive Summary

In 2004, San Francisco voters approved Proposition I, which authorized the creation of an economic development plan for the City. This report, *Sustaining our Prosperity: the San Francisco Economic Strategy*, is the result of that planning process. Proposition I directed the strategy to focus on identifying and developing industries that have the potential to create good jobs that align with the skills and education of San Francisco's residents. The strategy also focuses on preserving and enhancing small businesses, creating job opportunities for disabled and vulnerable populations, and developing the City's tax base.

San Francisco joins an expanding number of cities around the world that have looked to an economic strategy to guide their economy in uncertain times. While the goals, strategies, and measures adopted by these cities are as different as their histories and values, what they share is a common aspiration known as *sustainable prosperity*. Cities need a strategy to attain global competitiveness in some economic activities in order to thrive in a global economy. At the same time, they must then leverage that competitiveness to achieve broader social and economic goals that improve the quality of life of their residents. The sustainable prosperity approach to economic strategy involves thinking through the relationships that link government policy, industry competitiveness, and economic outcomes. The figure below illustrates the logic of the sustainable prosperity strategy framework.

Figure 1. The Sustainable Prosperity Strategy Framework



Economic performance is a set of economic outcomes that reflect a city's economic past, and its vision for the future. These outcomes are the economic indicators that people care about and want to affect—unemployment, wages, inequality, migration, and business and asset ownership.

The first principle of the sustainable prosperity framework is that economic performance is a function of the structure of the local economy and its export sectors, or *economic drivers*. An area's export sectors, and their competitiveness in global markets, have a powerful influence on the economic outcomes that affect the quality of life. Sustainable prosperity involves building globally competitive export sectors, around specific industry clusters, which are based on a durable competitive advantage that cannot be quickly eclipsed by other regions.

The competitive advantages that a city can offer are rooted in its *economic foundations*—the local assets that distinguish it from other places and allow companies to add value in distinctive ways. Economic foundations include the educational level of the workforce, the quality of life,

the region's infrastructure, innovative institutions, and the tax and regulatory climate for business.

These foundations are not the work of the private sector, at least not exclusively. Public policy has a decisive impact on the strength of these foundations; this is represented by the arrow that shows policy and action affecting the economic foundations.

Cities can use this framework as a tool to craft a strategy aimed at achieving an alternative economic future. This document presents San Francisco's strategy for achieving such a future. The framework imposes the discipline that if San Francisco wants a different economy, then it has to work on its economic drivers in ways that will produce these different outcomes. Changing the economic drivers requires changing the economic foundations, and this will require different public policies.

The primary aim of this report is to make this process of potential economic change as clear and transparent as possible. To be a useful guide to policy, San Francisco's economic development plan must indicate the way to use policy to achieve economic goals. To be sure, there are limits to what the City can do, acting on its own. Nevertheless, there is no reason that an effective plan that guides city government action cannot have a similar influence on the action of the private and non-profit sectors, as well as other levels of government.

Economic Performance

The report begins with a review of San Francisco's economic performance. The economic performance review revealed several important aspects of San Francisco's changing economy. It higlights the outcome of basic economic forces and drivers that, left unaddressed by policy, will likely continue into the future.

San Francisco, like many other central cities within growing metropolitan areas, has experienced significantly slower job growth than its suburbs for many decades, notwithstanding the brief spurt of job growth in the late 1990s. Indeed, it is debatable if it is even meaningful any longer to speak of San Francisco as the central city of the Bay Area in an economic sense, since it was surpassed in total employment by Santa Clara and Alameda counties during the 1970s.

Despite a largely stagnant number of salaried jobs, there have been significant shifts in the composition of San Francisco's job base. A continual growth of upper-income professional and technical jobs has been associated with rising average wages. Growth in these jobs has made San Francisco attractive to highly educated people, and many have migrated here, from across the United States and around the world.

At the same time, a consistent decline in middle-income production and office/administrative jobs, steady growth in low-wage service jobs, and highly uneven patterns of wage increases among industries means that many workers in San Francisco have not benefited from rising average wages. These job trends have exacerbated income inequality in San Francisco, which has a pronounced racial dimension. The gap between white and minority earnings in San Francisco are considerably larger than in the U.S. as a whole, and widened during the 1990s.

Migration has changed the City's population, in ways that have both responded and contributed to these labor market trend. Low- and middle-income longtime residents have increasingly left the city. They have been replaced by primarily young single people from elsewhere in the U.S. during the 1990s, and immigrants from around the world, primarily from Asia, and particularly from China.

Along with high skilled, high wage workers, San Francisco's population consists of large numbers of workers with barriers to employment, and in many cases multiple barriers to employment. These barriers, which range from limited English proficiency, medical problems, substance abuse, mental health problems, and disability, limit both the employment prospects and earnings potential of many residents.

Small businesses and self-employed residents have both grown in San Francisco relative to salaried employment. Large business's share of the City's total job base has fallen by 50%, and self-employment has grown by over 150% over a 35-year period. During this time, salaried employment in San Francisco was essentially flat.

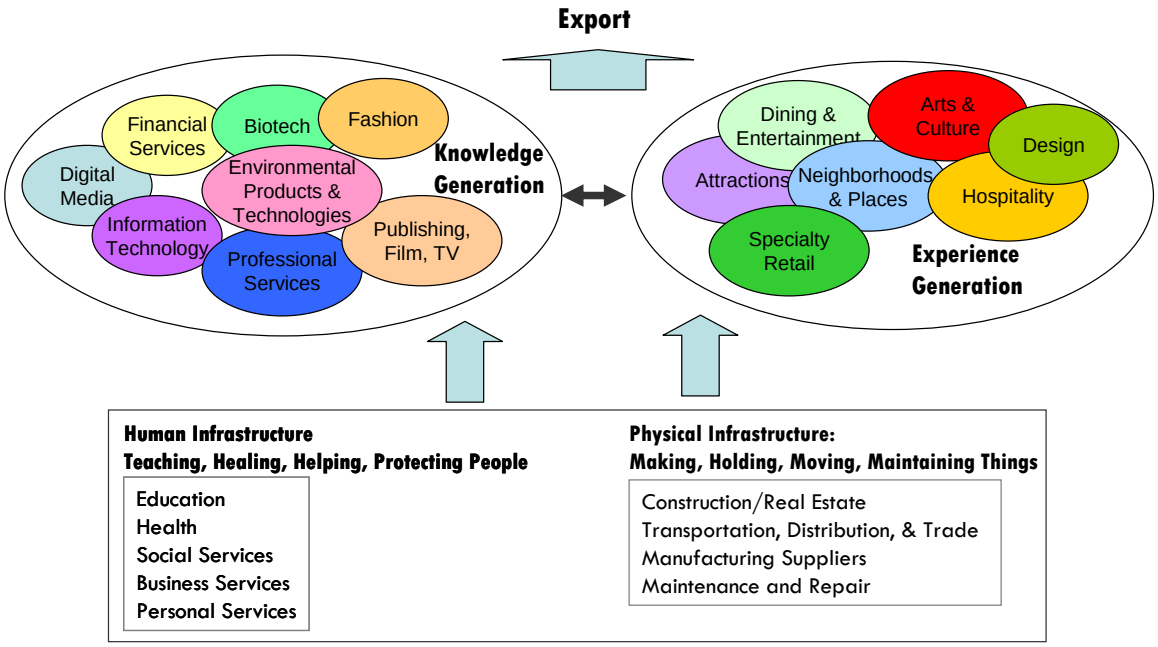
The expansion of small businesses has created an alternative to salaried employment for many San Francisco residents, and has the potential to address the City's high rates of asset poverty and the economic insecurity caused by fundamental shifts in its salaried jobs base. However, at present, racial and gender patterns of inequality in business ownership in San Francisco mirror the pattern in total income, indicating that these barriers to business ownership and success will need to be addressed before this potential alternative path to economic security can become a reality.

These trends are important starting points for the San Francisco Economic Strategy, because they represent the dimensions of economic life that people care about and can engage with to explore alternatives. However, these outcomes are precisely that—outcomes that cannot be directly changed in most cases, but can be reshaped by an alternative set of policies that influence the economic processes that generate them. These processes and policies that can affect them will be discussed in the chapters that follow.

Today's Economic Drivers

Like every city, San Francisco's economy is fundamentally shaped by its trading relationships with the rest of the world. The City’s economic structure has four major sectors: two export-oriented, and two local-serving. The export base is comprised of two interrelated industries—the *knowledge sector* and the *experience sector*. The knowledge sector consists of companies that create economic value because of the knowledge and know-how they develop for their customers. The experience sector is essentially the visitor industry in the broadest sense, and it includes companies who create economic value for non-residents based on the quality of the experience they provide, whether in hospitality, arts and culture, museums, or other sources of recreation and entertainment.

Figure 2. San Francisco's Economic Structure



The lower half of the figure represents the City's local serving industries—the human services sector, and the physical infrastructure sector. The human services sector includes all of those businesses and non-profit organizations that provide services to residents, ranging from education and health to business and personal services. The physical infrastructure sector includes organizations that create value by working with physical things: manufacturing, construction, transportation, warehousing, storage and distribution, and maintenance and repair. Together, these sectors represent the majority of private sector employment in San Francisco; most neighborhood-serving small businesses, for example, fall into one of these two categories. Their economic health, however, is heavily dependent on the competitiveness and success of the export sectors.

Strategy Goals and Priorities

The City's economic structure is shaped by global economic forces as well as local actions. While not discounting the power of economic forces beyond the City's control, values and goals are at the heart of local economic strategy. During this planning process, research was conducted to identify what those goals should be—what exactly do we mean by sustainable prosperity in San Francisco?

Several goals come directly from the language of Proposition I, which created the economic development plan. The Mayor's Office of Economic and Workforce Development and its consulting team decided that additional community outreach was desirable. In the Spring and Summer of 2006 a community survey was conducted that asked San Franciscans to rank the goals they thought the economic strategy should prioritize. Further outreach included a series of

public meetings, community group presentations and focus groups, each targeting a different business constituency in the City. Overall, there was considerable similarity between the objectives outlined in Proposition I and the input from community and industry stakeholders. This outreach can be consolidated into the following three goals, which guide the analytical work of the strategy:

- Create job opportunities by building on our strengths to promote greater overall economic growth.
- Ensure greater inclusion and equity in job opportunities, with an aim to reducing inequality.
- Ensure a sound fiscal footing for the City by encouraging industries with a positive fiscal impact.

The most critical link in the sustainable prosperity strategy framework is the one between economic drivers and economic outcomes. The challenge is to identify *changes* to the economic drivers that would create different economic outcomes, in line with the strategy's goals. This requires knowing enough about each industry to be able to understand their impacts relative to these goals. Each of the three strategy goals corresponds to a measurable industry characteristic that corresponds to each goal, as detailed in Table 1.

Table 1. Strategy Goals and Industry Characteristics

Goal	Corresponding Industry Characteristic
Create job opportunities by building on our strengths to promote greater overall economic growth.	Identify San Francisco industries that will stimulate secondary economic development through a strong local multiplier effect.
Ensure greater inclusion and equity in job opportunities, with an aim to reducing inequality.	Identify San Francisco industries that will create quality job opportunities for residents without a university degree.
Ensure a sound fiscal footing for the City by encouraging industries with a positive fiscal impact.	Identify San Francisco industries that will generate more tax revenue than they consume in services.

The project team assessed each major industry in San Francisco to evaluate the extent to which they created economic spillovers through the local multiplier effect, offered quality jobs for San Franciscans without a four-year degree, and had a positive fiscal impact. The results of the industry impact analysis can be briefly summarized by sector:

Knowledge Sector—most knowledge sector industries have relatively high impacts compared to other industries in the local economy. This is largely due to the high wages that these industries pay, which create significant multiplier effects for local-serving businesses in San Francisco, and which generate significant payroll taxes for the City. In addition, these industries did quite well

in providing quality jobs for San Franciscans without a four-year degree. Only the physical infrastructure industries offer more opportunities to this large portion of the workforce.

Experience Sector—the experience sector industry impacts were more mixed, as retail trade industries generally have low multipliers, because most of their revenue leaves the City to pay for the manufactured products they sell. In addition, while industries in the experience sector do offer significant entry-level employment opportunities, they do not provide as many higher-paying jobs for the less-educated as other sectors. However, the experience sector industries do score very strongly on fiscal impact, as they are the largest sources of sales tax and accommodations tax revenue for San Francisco.

Human Services—the human services sector industries tend to have an average impact, with several industries offering many quality job opportunities, offset by average multiplier effects and low fiscal impacts, as many organizations in this sector are tax-exempt.

Physical infrastructure—the physical infrastructure industries, along with those in the knowledge sector, have the highest overall impacts. Physical infrastructure industries offer the highest-paying employment to workers without a university degree, and their multiplier effects are relatively strong as well.

This strategy prioritizes expansion of the industries that advance its goals. Targeted industries were selected not only because they have the desired impacts, but also because their expansion is feasible given what we know about their past trends and the City's economic foundations for further growth.

Both the knowledge and experience sectors have demonstrated a capacity for further growth over the long term, based on their growth trends in the past. As the main components of the City's export base, their success will create possibilities for the other sectors of the San Francisco economy.

Within the knowledge sector, San Francisco has come to specialize in smaller firms in emerging industries, which tend to create jobs mainly for workers with a university education. Despite gains elsewhere in the Bay Area, the City has been losing employment in larger, middle-income knowledge-based jobs in financial services and corporate headquarters. For this reason, the strategy establishes two priorities associated with the knowledge sector: continuing to grow a more diverse set of knowledge-based and high-tech start-ups, and encouraging these companies to stay in San Francisco as they grow.

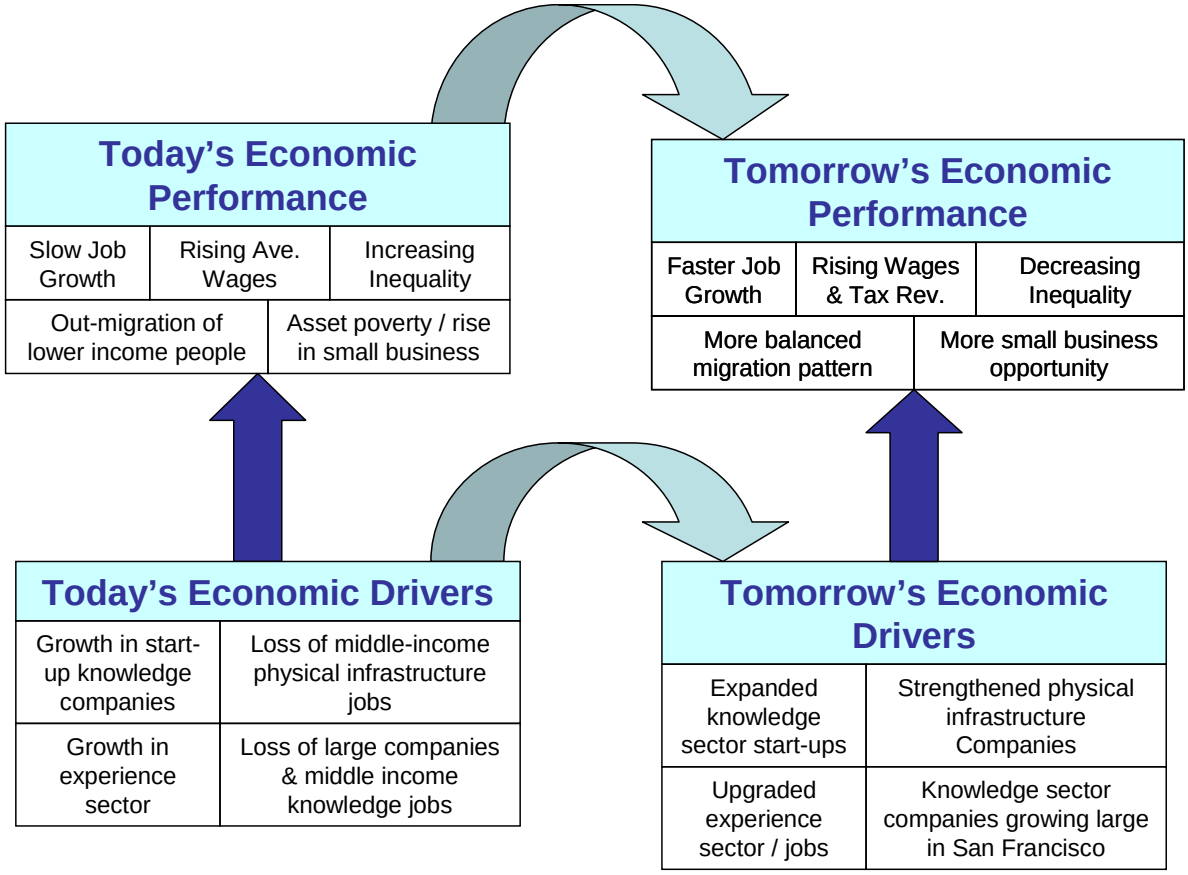
The City needs to continue to grow the experience sector in ways that deepen and enhance experiences, and create new forms of value for visitors. Instead of (or in addition to) growing the number of visitors, San Francisco needs to continuously improve the product, to develop new ways of encouraging visitors to spend more during their stay. One way to do that is to broaden the tourism product, by incorporating a broader range of neighborhoods, cultures, and experiences into the "San Francisco experience". Another way to do this is to progressively develop more unique restaurants, museums, attractions, boutiques, theaters, architecture, and other forms of the urban experience in core tourism areas and elsewhere as appropriate.

The competitiveness of the experience sector depends, in particular, on the quality of the workforce. Earnings in positions like food servers, retail salespeople, artists and performers, and other service workers can be significantly higher in higher-end establishments than on average. In turn, becoming a world-class, higher-end business demands more service expertise from the workforce. The same relationships between education and training, productivity, and competitiveness in higher value-added production exist in the experience sector as in the rest of the economy.

The physical infrastructure sector is a local-serving industry whose job growth has not kept up with the growth of the rest of the City's economy. With the exception of the construction industry, which has generally seen healthy growth, the other physical infrastructure industries have declined substantially for many years. Because these industries provide relatively good jobs for workers without a four-year degree, strengthening this sector would advance the goals of the strategy; the challenge is reversing the trend of decline.

These four strategic priorities outlined in this chapter form a vital bridge between the economic performance that San Francisco has experienced in the recent past, and a performance that would fulfill the goals of this economic strategy.

Figure 3. Accomplishing Strategic Priorities Will Change Economic Performance



Successfully developing these strategic priorities will, over time, reverse the negative trends highlighted by the economic performance review. That is precisely why they are the priorities of the strategy. Expanding the range of knowledge-based start-ups, and retaining those companies in San Francisco as they grow, can, in time, deliver a new generation of middle-income jobs in emerging industries where the region has a strong competitive advantage. Effectively strengthening the physical infrastructure sector will stem the rate of job decline in those industries, protecting and perhaps one day adding more middle-income jobs. Upgrading the experience sector will ensure that San Francisco remains a global leader in this important industry, and can also provide higher quality jobs in those industries. All of these strategic priorities can drive the city's overall economic growth, create a favorable fiscal impact, and create greater business opportunity for new and existing neighborhood businesses. Making progress on these strategic priorities means making progress on the current weaknesses in the city's economic foundations that currently inhibit their growth.

Economic Foundations and Business Barriers

Economic foundations are those city assets that enable the competitiveness of its export sectors and in turn shape its economic future in an open, global economy. Critically, these economic foundations are powerfully shaped, if not actively produced, by government policy. In the field of local economic development, thinking has evolved away from a pure *laissez-faire* perspective towards a recognition that the right kind of government action is a prerequisite for development today. Effective policies for education, quality of life, technology and innovation resources, and infrastructure—as well as a cost-effective and well-regulated business climate—are all important foundations for economic development in today's economy.

Economic foundations can promote economic development, or become barriers to business growth. During this planning process, San Francisco's economic foundations were benchmarked and analyzed—over time, against the performance of other core urban cities and as experienced by the city's business community. This analysis revealed many strengths, but also highlighted several challenges.

Education and training: Despite the fact that San Francisco has one of the highest educational attainment rates in the country, and the skill of its labor force is perhaps the City's greatest asset, key challenges remain. In particular, there is a disconnect between the skill-level of San Francisco's residents and the employment potential in its growing knowledge sector.

Governance/Business Climate: San Francisco is one of the most expensive locations in the world for both businesses and consumers. In many ways, the high costs in the region are a product of its past economic successes; however, several aspects of the business climate in San Francisco are serious deterrents to competitiveness, including a relatively high business tax, a regulatory climate that is perceived as burdensome, and high costs for new commercial and residential development.

Quality of Life: Like its workforce, San Francisco's quality of life is widely envied. It is the fundamental driver of the City's experience sector, and a magnet for talented workers from around the world. Maintaining San Francisco's quality of life is therefore critical to the City's

competitiveness. Key challenges include enhancing neighborhood commercial areas, continuing to promote San Francisco as a center for arts and creativity, and improving parks and open space.

Infrastructure: Quality infrastructure has always driven San Francisco's economic development, and this remains true today. However, the City's ability to grow hinges on the capacity of local and regional transit systems to get large numbers of workers into its employment centers in a timely fashion. The City must also ensure that appropriate levels of real estate are set aside to achieve key sectoral priorities, as well as take steps to reduce the cost of new residential and commercial development.

Technology and Innovation: The need to support entrepreneurship and small business goes hand in hand with the responsibility to support institutions, like universities, that produce the ideas and innovations that drive the City's knowledge sector. Attracting public, non-profit, and private sources of research and development investment is vital to produce new ideas, sustain a culture of creativity, and to generate new business development in San Francisco.

Policy and Action

The strategy concludes by proposing policies and actions that will immediately begin strengthening the City's economic foundations in line with the four strategic priorities. Specifically, expanding knowledge sector start-ups in San Francisco is an important target, as the Silicon Valley technology economy spreads across the Bay Area, and the City searches for a new generation of middle-income jobs. Success will require a greater emphasis on commercializing research to generate businesses and jobs, continuing to improve the quality of life to attract talented people to San Francisco, making the most of its telecommunications infrastructure, and renewed efforts to support entrepreneurship and small businesses in the City. Success also requires building and enhancing workforce development programs in emerging industries such as biotechnology, digital media, and clean technology in order to prepare San Francisco residents for new jobs. In other words, for this strategic priority, action is needed across all five of the economic foundations just discussed.

Retaining growing knowledge-sector firms in San Francisco will require making the City as competitive as possible with alternative locations in the Bay Area. San Francisco's business taxes are very high by Bay Area standards, and its housing costs contribute to high labor costs. Both of these factors encourage large businesses, in particular, to expand outside of the City. However, its high density downtown and ample regional transit make San Francisco accessible to workers across the region, which may counteract some disadvantages in the future. Thus infrastructure, governance/business climate, and workforce are the most important economic foundations related to this priority.

Upgrading the experience sector means raising the average revenue San Francisco earns per visitor-day by continuing to improve the quality and value of the experience the City provides to all visitors, be they business, leisure, or convention travelers. As the San Francisco Convention and Visitor's Bureau's business plan states, the mission should be to make San Francisco the

most compelling destination in the world[1]. From a public sector perspective, this is fundamentally about the economic foundations of quality of life and workforce. In the past several years the City has made or facilitated several investments that have transformed San Francisco's tourism product. Examples range from the new Yerba Buena Center for the Arts, the Museum of Modern Art, to the later renovations of the de Young and Asian Art Museums, to the Moscone West Convention Center. New projects, such as the Old Mint and the Academy of Sciences will continue to enhance San Francisco's tourism product and offer compelling experiences to visitors. New infrastructure will be a critical part of this, as will continuing to develop San Francisco as a center for the arts and creativity generally. From a workforce perspective, an upgraded experience sector hinges on a workforce able to offer high-quality service. This requires specialized training and will, in time, offer a broader range of quality jobs in the industry.

Strengthening the physical infrastructure sector of the economy will involve creating incentives and programs for these companies to modernize their plant, equipment, and skills to meet emerging needs of the local economy. These include stable industrial areas—an infrastructure foundation, as well as specialized workforce programs and business financing and assistance programs that are tailored to the unique needs of this sector.

To achieve accelerated growth in these four areas, the strategy proposes the following policies, which are described in greater detail in Chapter 5.

- Education and Training
  - Create a Coordinated Workforce Development Strategy for the City Around the Economic Development Priorities
  - Better Prepare San Francisco's Youth for Careers
  - Close the Digital Divide

- Governance/Business Climate
  - Create a Local Tax Policy That Promotes the City's Economic Development Priorities
  - Increase Business Outreach and Private Sector Partnerships
  - Streamline Business Interaction with the City Government
  - Evaluate and Refocus the City's Assistance Programs for Businesses
  - Evaluate Economic Impact of City Polices on Business
  - Use City Purchasing and Regulation To Promote Competitiveness in Priority Sectors

[1] San Francisco Convention and Visitor's Bureau. *2007/08 Business Plan*.

- Quality of Life
  - Upgrade Neighborhood Commercial Areas
  - Encourage Creativity by Continuing to Develop San Francisco as a Center for the Arts
  - Recognize and Enhance the Value of Parks and Open Spaces

- Infrastructure
  - Provide Sufficient Real Estate for Strategic Priorities
  - Maximize San Francisco's Accessibility to a Local and Regional Workforce
  - Work to Reduce the Cost of Residential and Commercial Development

- Technology and Innovation
  - Support Commercialization of Research and Technology
  - Improve Telecommunications Infrastructure for Information-Intensive Industries
  - Support Efforts to Create More Investment Vehicles for Startups
  - Identify, Evaluate and Support Emerging Industries

What Happens Next?

The real value of any local economic strategy lies in its implementation. As described in Chapter 5: Policy Goals and Recommended Actions, , the broad policy goals of the strategy are associated with specific recommendations that City departments will begin using immediately to implement the strategy. The Mayor's Office of Economic and Workforce Development is charged with ensuring that City departments continue to act in a coordinated manner to strengthen the city's economic foundations, and advance the priorities and goals of the strategy.

Proposition I itself also established a novel approach to implementation that ensured that the economic strategy would live on within city government. Not only did the ballot measure create the City's first official economic development plan, it created an office – the Office of Economic Analysis (OEA) – within the Controller's Office to serve as an informational resource for the Board of Supervisors. The OEA writes reports that will inform the Board of the impact of legislation on key objectives of this economic strategy.

In specific terms, as detailed in Chapter 5, the OEA will review all pending legislation that is introduced by members of the Board of Supervisors, and assess its potential impact against the goals, strategic priorities, and broad policy objectives of the plan. The OEA will develop a model of the San Francisco economy that will allow it to estimate these impacts quantitatively.

It is important to emphasize again that there are limits to what the the City can do on its own. The strategies of state and federal governments, educational institutions, large non-profit organizations, and of course the private sector will play a major role in San Francisco's future economic development.

Unlike many other cities, however, San Francisco does not have a private sector-led, or public-private economic development strategy. Nor is there any clear and unambiguous sense of how San Francisco's economy relates to the economic planning of the regional, state, and federal governments. It thus makes sense, in this context, for the City to start the process of coordinating its own investments in San Francisco's economic foundations, and linking them to a clear plan for sustainable prosperity. Other levels of government, and the private sector, can play their part in turn.

The global city of San Francisco, and the Bay Area region, are at the fulcrum of fundamental transformations in the global economy. As a result, we have experienced change at a much more rapid pace than a typical U.S. area. Much of this change is clearly beneficial; indeed, our economy is a model for economic development all over the world. Other changes have challenged the city's values, and commitment to equality and broad-based opportunity for all people and communities.

Without a plan to guide a response to change, reactions can be haphazard, confused, or even counter-productive. The San Francisco Economic Strategy is not merely a guide to increasing the city's competitiveness, although that is a vital prerequisite to achieving its broader economic aspirations. Ultimately, as it comes to be adopted by the City, it can serve as a set of tools to maintain the economy we want for ourselves in a global system over which we have little control.

Chapter 1: About the San Francisco Economic Strategy

In 2004, San Francisco voters approved Proposition I, which authorized the creation of an economic development plan for the City. This report, *Sustaining our Prosperity: the San Francisco Economic Strategy*, is the result of that planning process. Proposition I directed the strategy to focus on identifying and developing industries that have the potential to create good jobs that align with the skills and education of San Francisco's residents. The strategy also focuses on preserving and enhancing small business, creating job opportunities for disabled and vulnerable populations, and developing the City's tax base.

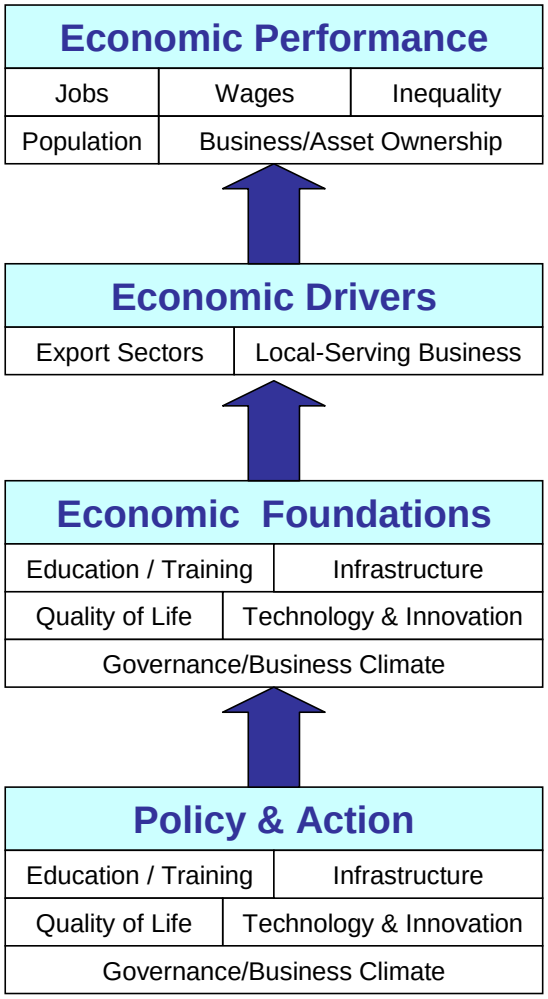
This economic strategy is San Francisco's first official economic development plan, and comes at an important time in its history. After receiving one of the largest influxes of investment in U.S. history during the late 1990s, the population declined by over 30,000 people between 2000 and 2004—more than any other Western U.S. city.

Both the late 1990s boom and the subsequent bust highlight the extent to which, without strategy, the City is at the mercy of economic forces largely beyond its control. Despite the population decline, housing costs remain high. Poor and middle-class families are leaving the City in record numbers, and many wonder if staying in San Francisco makes economic sense. Many in the City are searching for an economy that can provide not only prosperity, but sustainable prosperity.

Sustainable Prosperity: A Strategy Framework

San Francisco has now joined an expanding number of cities around the world that have looked to economic strategy to guide their economy in uncertain times. While the goals, strategies, and measures adopted by these cities are as different as their histories and values, what they share is a common aspiration known as *sustainable prosperity*. Cities need a strategy to attain global competitiveness in some economic activities in order to thrive in a global economy, but at the same time, they must then leverage that competitiveness to achieve economic security and other social goals. The sustainable prosperity approach to economic strategy involves thinking through the relationships that link government policy, industry competitiveness, and economic outcomes. Figure 4 illustrates the logic of the sustainable prosperity strategy framework.

Figure 4. The Sustainable Prosperity Strategy Framework



Economic performance is a set of economic outcomes that reflect a city's economic past, and its vision for the future. These outcomes are the economic indicators that people care about and want to affect---unemployment, wages, patterns of socio-economic inequality and migration, and business and asset ownership.

The first principle of the sustainable prosperity framework is that economic performance is a function of the structure of the local economy and its economic drivers. An area's export sectors, and their competitiveness in global markets, have a powerful influence on economic outcomes. Sustainable prosperity involves building globally competitive export sectors, around clusters of industries, that are based on a durable competitive advantage that cannot be quickly eclipsed by the competition.

The competitive advantages that a city can offer is rooted in its *economic foundations*—the local assets that distinguish it from other places and allow companies to add value in distinctive ways. Economic foundations include the educational level of the workforce, the quality of life, the

region's infrastructure, research institutions, capacity to support small business, and cost of doing business.

Critically, these foundations are not the work of the private sector, at least not exclusively. Public policy has a decisive impact on the strength of these foundations; the arrow that shows policy and action affecting the economic foundations represents this.

This characterization of the process of local economic development becomes a real strategy tool when a city decides to work towards an alternative economic future, as this planning process has done. If San Francisco wants an economy with a broader mix of jobs, less inequality, greater opportunity for small business, etc., then it has to change the economic drivers in ways that will produce these different outcomes. Changing the economic drivers requires changing the economic foundations, and this will require different public policies.

Organization of the Report

The organization of this report follows the structure of the sustainable prosperity strategy framework just discussed.

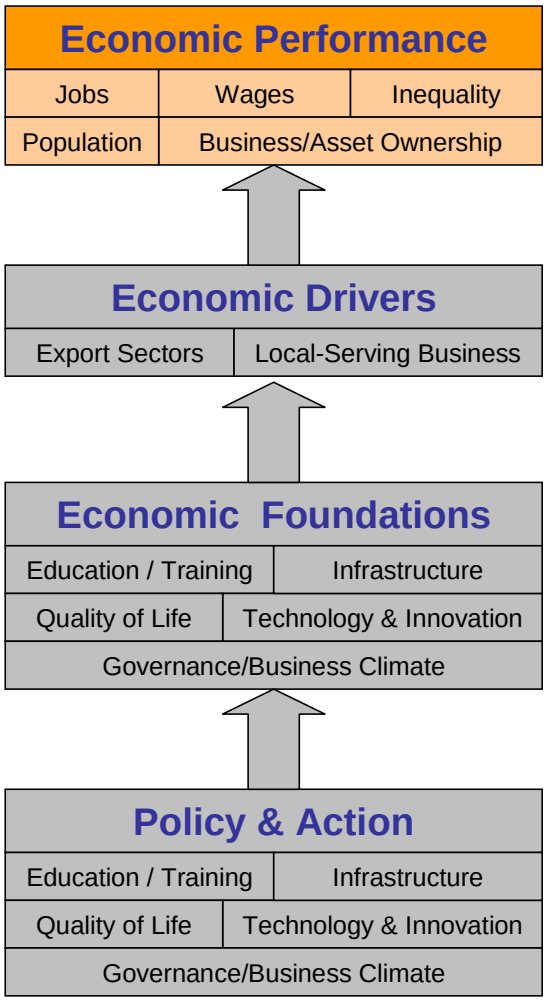
- Chapter 2 focuses on the reviewing San Francisco's economic performance, focusing on employment growth, wages, inequality, economic costs of barriers to employment, small business, and asset poverty.
- Chapter 3 discusses San Francisco's current economic structure and economic drivers, and reports on the results of outreach efforts aimed at establishing goals for this economic strategy. The realities of today's economic structure, and the aspiration of the strategy's goals, are combined to develop four strategic priorities for the City's economic drivers, which, if followed, will produce a different set of economic outcomes in the future.
- Chapter 4 reviews the strengths and weaknesses of San Francisco's economic foundations, in the context of these strategic priorities. Results of a Survey of Business Barriers and business focus groups, which asked businesses to report on problems in the local business climate, are woven into this assessment of San Francisco's underlying strengths and weaknesses.
- Chapter 5 lays out an agenda for change that offers potential policy solutions to the weaknesses in San Francisco's economic foundations. It provides both broad goals, and specific recommendations, that the City could enact to ameliorate the identified barriers and help achieve the goals of the Strategy.
- A series of appendices follow containing methodological notes and additional analysis.

Chapter 2: San Francisco's Economic Performance

San Francisco's economic strategy must start with a thorough assessment of where the economy is today, and how it has changed in recent years. Creating sustainable prosperity requires a sharp focus on the economic outcomes that people care about, and the opportunities that exist to shape them in socially desirable ways.

The economic performance review set out in this chapter is a launching point for a discussion, detailed in Chapter 3, regarding what trends need to be changed, and what are the most strategic points of intervention in the economy to effect that change.

Figure 5. Sustainable Prosperity Strategy Framework: Focus on Economic Performance



This chapter will review five inter-related aspects of San Francisco's recent economic performance. These five elements include:

Employment trends

Trends in wages, and wage differences by industry

Socio-economic trends related to inequality and the income distribution

Barriers to employment

Migration trends

Small business, self-employment, and asset poverty

A Slow-Growing Center of a Fast-Growing Region

Perhaps the most basic indicator of a city's economic performance is job growth. In San Francisco's case, it is also one of the most telling indicators, because it highlights a stark contrast between the City and the other counties that comprise the Bay Area.

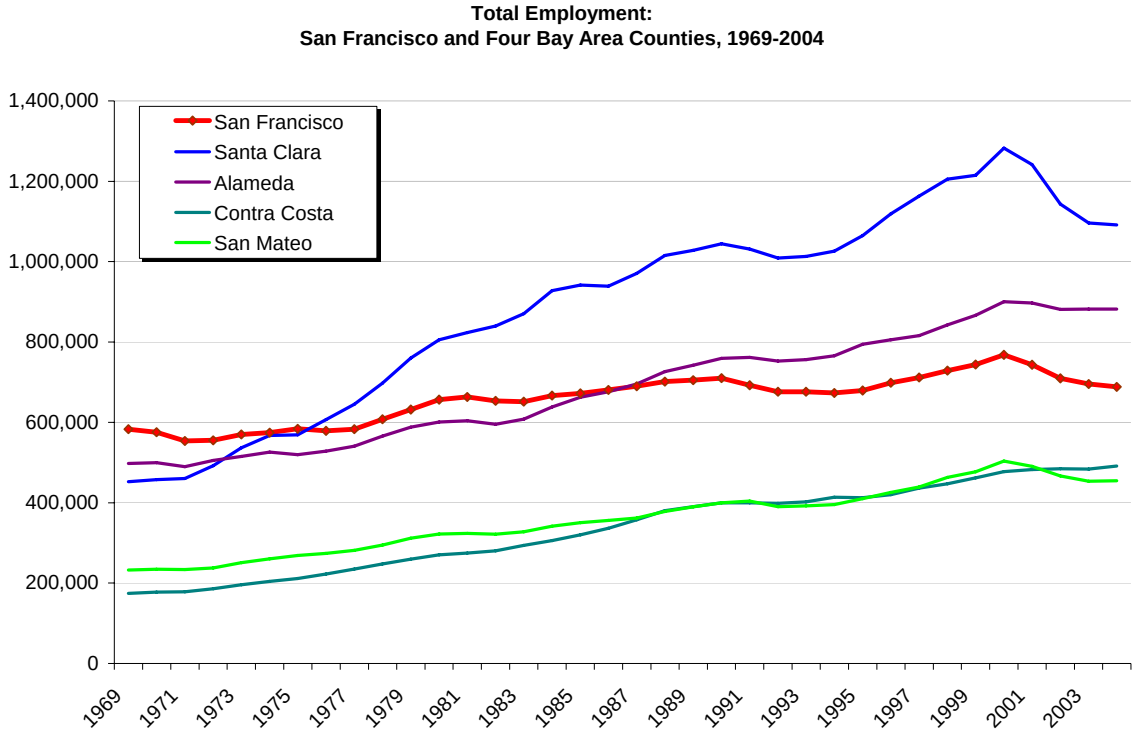
Although San Franciscans experienced a late 1990s boom followed by a post-2000 bust, San Francisco's employment changes were significant less extreme than other counties in the Bay Area. While the boom-and-bust had a significant impact on job growth, the longer term trend, illustrated by Figure 6, is of consistently slower employment growth than surrounding areas.

For decades, Bay Area employment has decentralized as suburban employment centers grew faster than downtown San Francisco. In 1970, San Francisco was the region's employment center but at present, San Francisco has declined to only the third largest employment center in the region, after Santa Clara and Alameda counties.

While San Francisco's total full-and-part time employment[2] increased by about 100,000 jobs between 1969 and 2004, Santa Clara County added nearly 700,000, and Alameda County added approximately 400,000. Even traditional suburban areas like San Mateo and Contra Costa counties added significantly more jobs than San Francisco.

[2] These employment figures, from the U.S. Bureau of Economic Analysis, include full-time and part-time workers, as well as proprietors and active partners in a partnership. Unpaid family workers and volunteers are not included. Public, private, and non-profit sector establishments are included. Other employment sources in this report use different definitions, which will be explained where appropriate.

Figure 6. Total Employment Among Major Bay Area Employment Centers



Source: U.S. Bureau of Economic Analysis, Regional Economic Accounts

As much as San Francisco's slow job growth is connected with many of the other economic challenges discussed later in this chapter, it is important to keep these trends in context. Most other central cities of large metropolitan areas have seen slow job growth, if not outright job decline, as their suburban areas grew. This shift of job growth from urban core areas to suburbs has been one of the most basic factors shaping U.S. cities over the past half century. It is associated with trends ranging from reduced economic opportunities for central city residents, to fiscal stresses on urban governments and school districts, to urban sprawl and region-wide impacts on the environment and quality of life.

However, it is vital, in this report, to go beyond this elementary observation about San Francisco's slow job growth and analyze the reasons for it, in terms of the City's economic drivers and its economic foundations. These forces shape the San Francisco economy, and its ability to create opportunity for its residents.

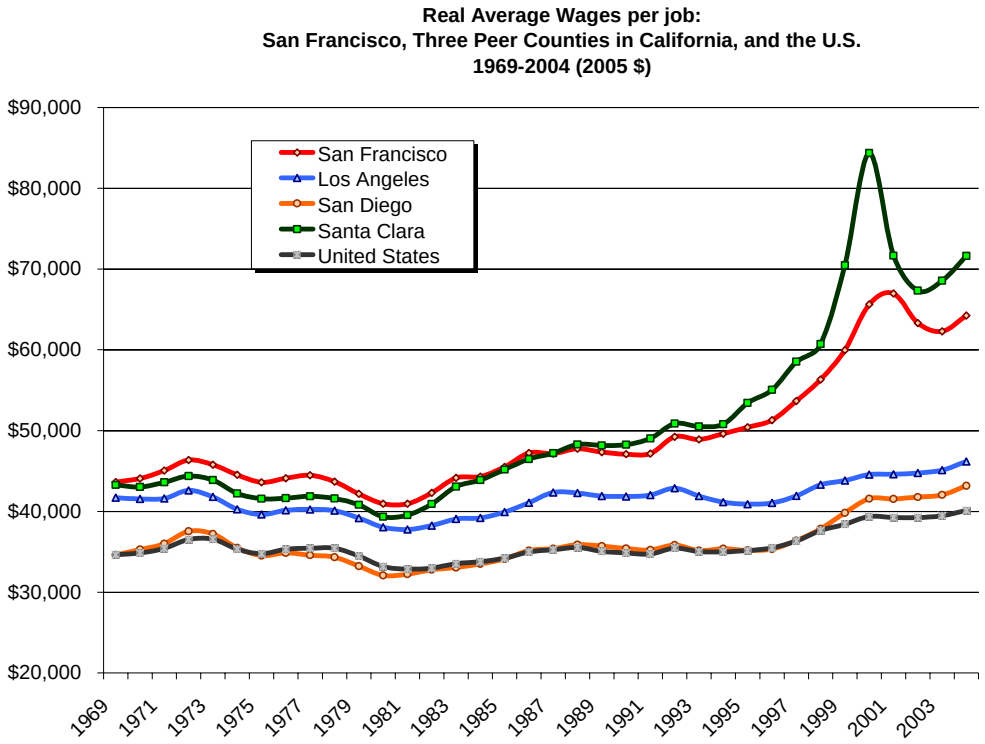
A Changing Job Mix

If San Francisco's slow job growth rate has been typical of central cities, the actual jobs located in the City, and the wages they pay, are anything but typical. One of the most striking features of San Francisco's highly distinctive economy has been its rapidly rising average wages. In San Francisco, in real (inflation-adjusted) dollars, average wages rose by about a third between 1990

and 2004. While there was a decline after the collapse of the stock market bubble in 2001, wages began to rise again after 2003.

By way of contrast, across the country as a whole, for a period of over thirty years, relatively little average real wage gains have been experienced by U.S. workers. This suggests that the same economic forces of globalization and technological change that have led to stagnating wages in the U.S. as a whole have not been experienced in the same way in the Bay Area. As Figure 7 indicates, Santa Clara County has experienced the same wage trend as San Francisco, but the U.S. as a whole has not.

Figure 7. Inflation-Adjusted Average Wages in Selected California Counties and the U.S.



Source: Bureau of Economic Analysis, Regional Economic Accounts

To put it another way, much of the growth in high-wage employment that has come about from the U.S.'s increasing export of high technology and knowledge-based goods and services has been concentrated in a few regional centers, the Bay Area prominent among them. In fact, average wage gains in two high-tech-based counties in Southern California—Los Angeles and San Diego—have experienced much more modest wage gains than both Santa Clara and San Francisco, reinforcing the distinctiveness of the productive capacity of the Bay Area in the global economy.

Behind this trend of rising average wages is significant shifts in the types of jobs that San Francisco residents hold, and the wages they pay. Rising average wages have been associated

with both the relative growth of high-wage jobs—largely at the expense of middle-wage jobs—and rising wages *within* those high-wage industries.

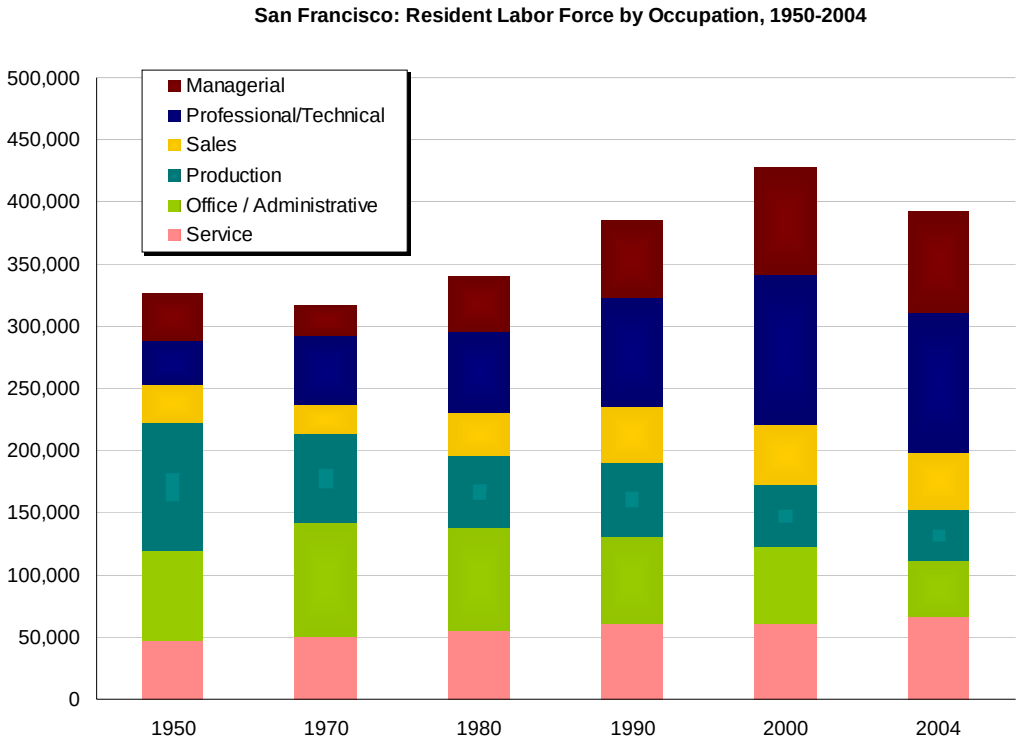
The variety of jobs available in San Francisco is directly related to the industries it hosts, and this in turn is a product of its economic role vis à vis the outside world. San Francisco first rose to prominence, of course, as a transportation and manufacturing center, processing and shipping California's agricultural products. A large industrial labor force formed in the City, that eventually unionized, earned higher wages, and formed a substantial and economically secure middle class in San Francisco. After World War II, however, cargo handling activity at San Francisco's port began to decline, and the City's competitive advantage in manufacturing was eroded, leading to industrial job losses in the City.

Efforts in the 1960s and 1970s to redevelop downtown San Francisco led to the expansion of jobs in the service sector, and the emergence of San Francisco as a corporate headquarters and financial center for the West Coast. Middle-income industrial jobs declined, but a broad array of clerical, back office, and professional service employment options developed in the City.

Since 1990, however, both financial services and corporate headquarters employment has declined in San Francisco. Several large corporations moved their headquarter operations to the suburbs in the late 1980s, and back office and other middle-income service jobs followed. The new sources of job growth in San Francisco in the 1990s came about from the expansion of the Bay Area's technology economy, and the Internet boom. The City became the world's leading center of e-commerce and internet content companies, because of its existing base of corporate, media, and arts workers. While most of these start-ups did not survive the collapse of the technology industry after 2000, the integration of the Silicon Valley technology economy, and the San Francisco corporate and creative economies, continues to have tremendous potential for the future. Information technology is still the major source of productivity growth in the U.S. economy, and new media, social networking, and other collaboration- and communication-based markets are among the most important in IT at the moment.

Against this backdrop, and looking back to 1950, four trends in San Francisco's occupational structure are clear. These trends are illustrated in Figure 8 below. First, there has been consistent growth of professional and technical occupations. Second, there has been a consistent decline in middle-income occupations, including production-related and office and administrative jobs. Third, growth has been steady and slow in low-income service occupations. Finally, an early decline in managerial jobs was followed by a period of consistent growth after 1970. This growth is likely tied to the growing number of small firms, discussed later in this chapter, which require increasing numbers of managers.

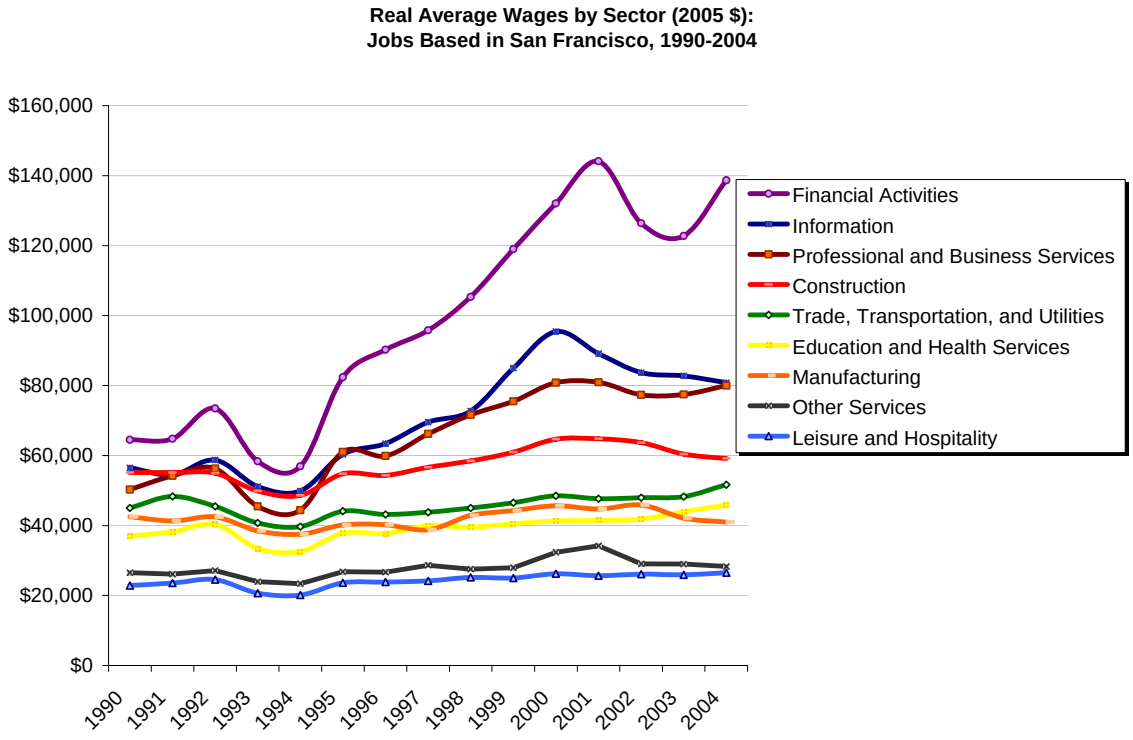
Figure 8. Trend in San Francisco Labor Force by Broad Occupation



Source: Integrated Public Use Microdata Series 3.0 (www.ipums.org); U.S. Census 2000 SF-3 Series, American Community Survey 2004.
Note: "Production" category includes construction, maintenance, production, & transport occupations.

Breaking down the wage trends by sector reveals some interesting patterns. Some high wage industries, including financial services, professional services, and information, experienced considerable wage increases in the 1990s, and are largely responsible for the overall average wage increases in the city. For many of the other sectors, the wage gains were much more modest.

Figure 9. Trends in Real Wages by Sector in San Francisco



Source: Bureau of Labor Statistics, Quarterly Census of Employment and Wages

Rising Income Inequality

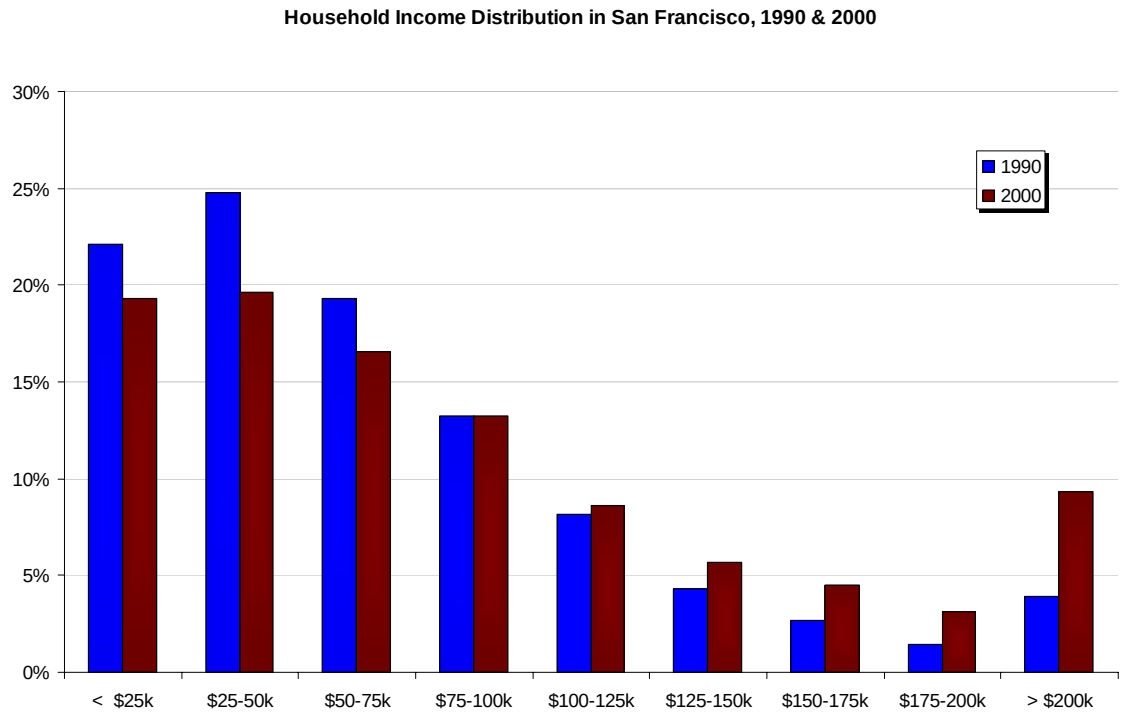
San Francisco's demographic composition and changing economics affect the City's overall socio-economic profile in terms of its income distribution, income inequality, and racial and gender disparity in income.

Using individual-level data from the Census Public Use Microdata Series, the project team was able to create comparable (inflation-adjusted) income distributions for San Francisco households in 1990 and 2000. This analysis was conducted with data that consists of households that live in San Francisco, not those having a member that works in San Francisco.

The results are quite clear: the percentage of San Francisco households earning less than $50,000 a year declined significantly during the 1990s, and the percentage earning over $100,000 increased significantly. The percentage of households with between $75,000 and $100,000 annual household income effectively remained the same. Given San Francisco's increases in high-wage jobs during this time period, this trend is not surprising, and there is no way to distinguish between San Franciscans who became wealthier during this time period and the effects of migration. We do know, however, that both in-migration and out-migration accelerated

during the late 1990s, the time of the greatest job growth, suggesting Figure 10 is associated with an out-flow of lower-income households, and an influx of upper-income households.

Figure 10. Income Distribution in San Francisco

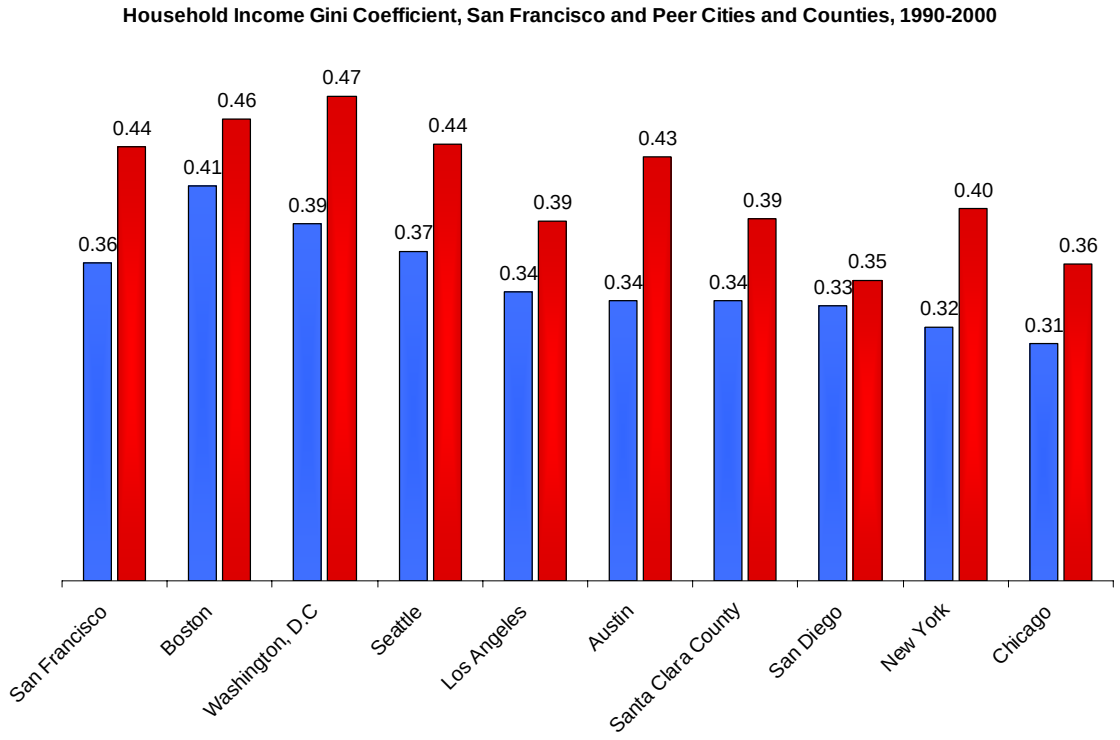


Source: Integrated Public Use Microdata Series 3.0 (www.ipums.org)

Income inequality within an area is most commonly measured by the Gini Coefficient, a number ranging from zero (complete equality) to one (total inequality). Gini coefficients were calculated using comparable 1990 and 2000 data for San Francisco and several peer cities[3], so that changes over time could be evaluated. The most clear and important trend is the increase in income inequality in every city during the 1990s. San Francisco's increase was significant, but New York, Washington, Austin, and Seattle experienced comparable or greater increases.

[3] Nine U.S. cities were used to benchmark San Francisco's economic outcomes, industry competitiveness, and economic foundations in this report. The nine cities are Austin, Boston, Chicago, Los Angeles, New York, Seattle, San Diego, Santa Clara County, and Washington, DC. In most cases, the data was available for all of the peer cities, but in some cases, a smaller subset was used. For data only available for California counties, sometimes additional California comparisons were used.

Figure 11. Rising Income Inequality Across Peer Cities and Counties

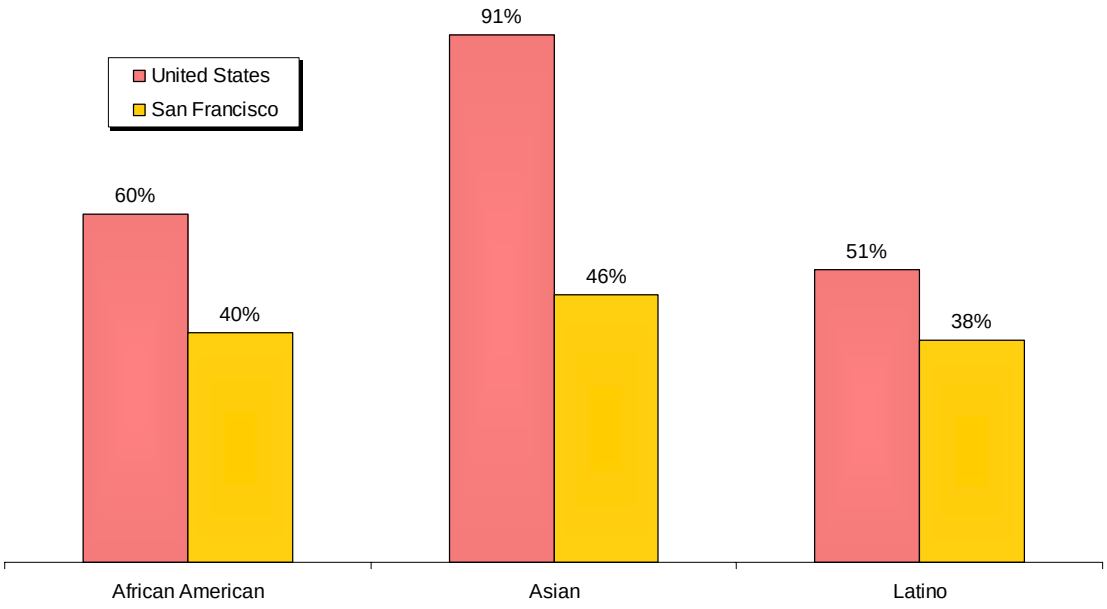


Source: Integrated Public Use Microdata Series 3.0 (www.ipums.org)
See Methodology Note [1]

Race and gender are significant parts of the story of income inequality in San Francisco and nationally. Figure 12 below illustrates the racial disparities in income, by expressing the per capita income of different racial and ethnic groups as a percentage of the per capita income of whites, for San Francisco and for the United States as a whole.

Figure 12. Racial Disparity in Income

Per Capita Income of Non-White Racial and Ethnic Groups, As a Percentage of Per Capita Income of Whites: San Francisco and the United States, 1999



Source: U.S. Census, 2000 Census SF-3 Series

Racial disparities in income are wider in San Francisco than they are nationally. Moreover, in contrast to national trends of converging income between whites and African-Americans and between whites and Asians, racial disparities in San Francisco became wider during the 1990s[4]. Given San Francisco's focus on advanced professional and technical service jobs, which generally require a four-year degree, disparities in educational attainment closely track disparities in income. According to the Census Bureau's 2004 American Community Survey, 63% of San Francisco whites have at least a bachelors degree, but only 21% of African-Americans, 38% of Asians, and 25% of Latinos.

There are also significant income gaps between men and women in San Francisco. According to the 2000 Census, men earn average of 25% more than women do, across all races. However, disparities in educational attainment between men and women in San Francisco are fairly narrow, and do not fully explain the difference.

San Francisco's slow job growth rate and changing job base has had major impacts on patterns of income inequality and disparity in the City. The loss of middle-income jobs has been associated with a diminishing middle class in San Francisco, as indicated by rising income inequality. The

[4] The income gap between Latinos and whites in the U.S. as a whole grew wider during the 1990s. However the income gap between whites and Latinos in San Francisco grew significantly wider than it did nationally.

advanced professional and technical service jobs that have been growing in San Francisco disproportionately require a university degree. In this context, racial disparities in educational attainment translate into disparities in income and, as a later section in this chapter indicates, in asset poverty as well.

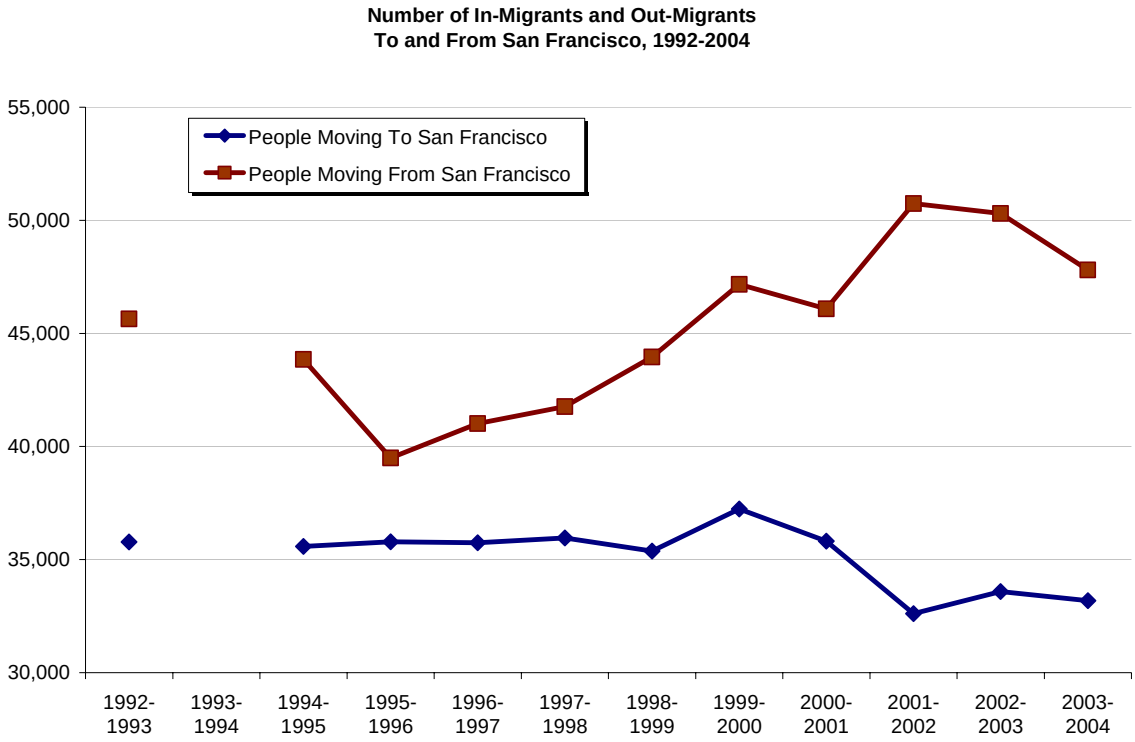
Economic Change Driving Migration

These changes in the economic role and job base of San Francisco have contributed to changes in the composition of City's population. The boom and bust of the last decade have led to a fairly rapid increase, and then substantial decline, in the City's population. This decline has only begun to reverse itself as of 2006. According to the U.S. Census, San Francisco's population rose to 744,000 in mid-2006 from 741,000 in mid-2005. This still represents a decline of over 30,000 from a recent peak in 2000[5].

The more fundamental population trends, which have intensified during both the boom and bust of the past decade, have to do with migration. Domestic migration (to and from San Francisco and other U.S. locations) has had a major impact on San Francisco's resident population in recent years. The trend has been one of accelerating net domestic out-migration—more people leaving San Francisco for other U.S. areas, and fewer moving in—as shown by Figure 13.

[5] U.S. Census Bureau, *Annual Estimates of the Population for Counties: April 1, 2000 to July 1, 2006.* http://www.census.gov/popest/counties/CO-EST2006-01.html

Figure 13. San Francisco's Recent Domestic Migration Trends



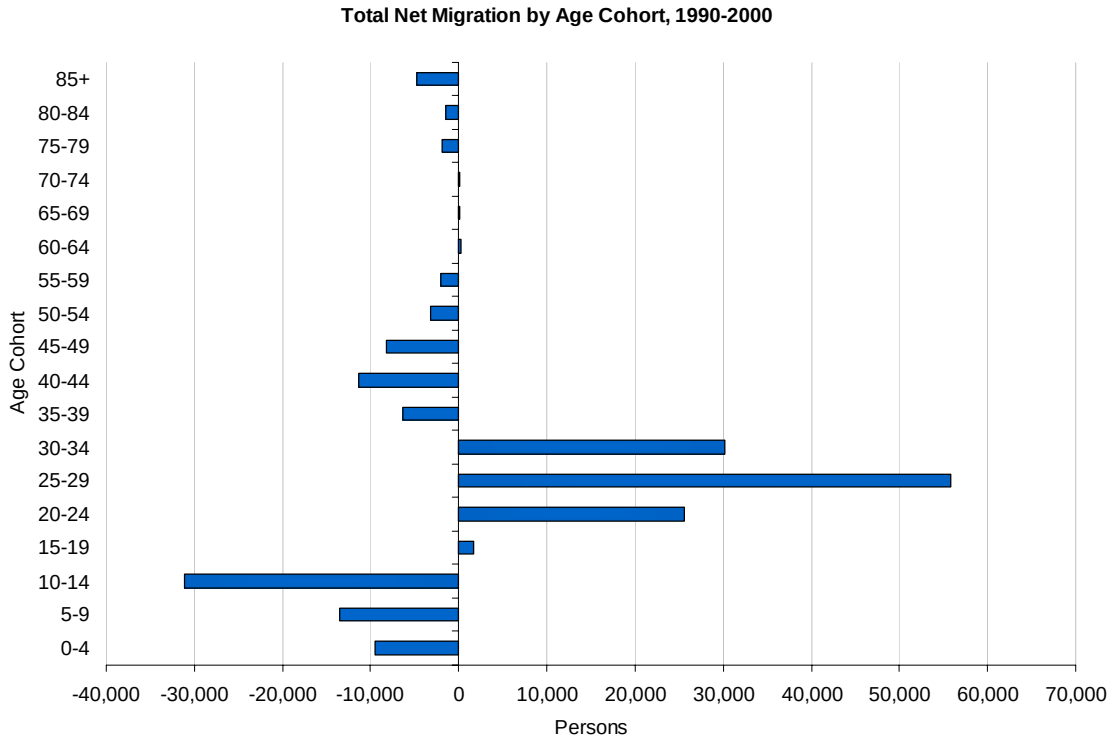
Source: Internal Revenue Service
See Methodology Note [2]

According to IRS data, domestic out-migrants had, on average, different demographic characteristics than the households who moved into San Francisco from elsewhere in the United States. Households who leave San Francisco are larger than the households that move in, and their per capita income of out-migrants is lower. This suggests that lower-income and middle-income families are moving out of the City, and singles or childless households are moving in. In addition, out-migrants are more likely to be African-American and, since 2000, Latino than White or Asian. The White population in San Francisco has remained steady since the 1970s, and the Asian population has increased consistently.

The age of migrants is another confirmation of this pattern. ICF developed a population model used to impute the net migration to San Francisco during the 1990s, by age cohort. The model projected the City's 1990 population forward ten years, assuming no migration. When comparing with the City's actual 2000 population by age group, the differences can be attributed to migration.

As can be seen below, results are clear: there has been a significant in-migration of young adults in the 20-34 year age category. This accounts for essentially all of the city's in-migration during the 1990s. What is also evident is the fact that San Francisco experienced net out-migration from almost every other age—particularly children, and their parents in the 35-59 cohorts.

Figure 14. Age Profile of Migration in San Francisco



Source: ICF estimates based on a cohort component model derived from Census and CDC data
See Methodology Note [26]

While domestic migration has been a source of population decline for San Francisco, the City has gained thousands of new residents annually through international migration, since at least the mid-1980s. Over 60% of San Francisco immigrants come from Asia, and 28% from the People's Republic of China alone.

As will be seen in a Chapter 4, these immigrants occupy both the high-end and the low-end of the job market in San Francisco and the Bay Area. Thus, the expansion of international immigration in the City is directly tied to the changes in the occupational structure described in the previous section, as well as to larger forces of globalization. International immigration has expanded to such as extent that, in 2005, there were more San Francisco residents born in another country, than were born in California.

Barriers to Employment in San Francisco

Although slow job growth and increasing inequality have progressed together in San Francisco since the 1970s, the supply of jobs is not the only challenge to sustainable prosperity in the City. Barriers to employment, like English proficiency, disability, substance abuse, medical conditions, offender status, and other challenges inhibit people from taking advantage of the job opportunities that do exist. The prevalence of multiple barriers to employment among the most

disadvantaged San Franciscans highlights the critical importance of linking economic and workforce development with social services that prepare these diverse populations for work and an autonomous, sustainable life in the City.

Good economic data is not available regarding the economic magnitude of many of these barriers, but numbers do exist on the economic situation of San Francisco residents who are disabled, and those who are not proficient in English.

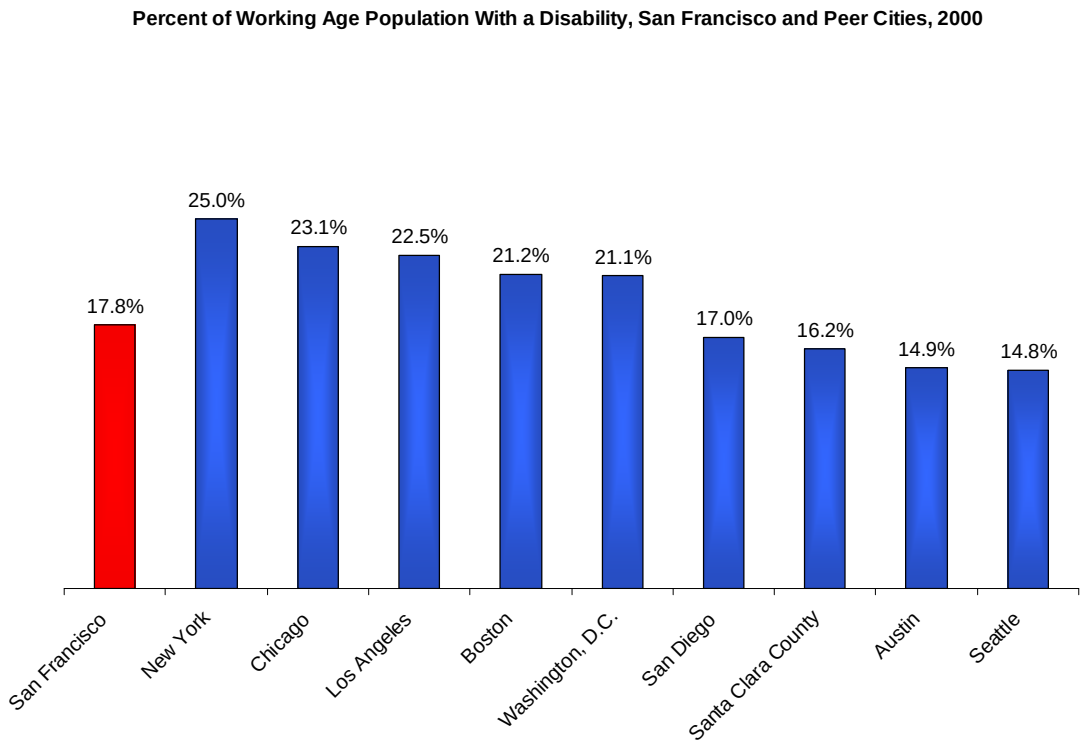
Disability

The capability of a city to enable people with disabilities to realize their full economic potential requires addressing communication and mobility concerns, by providing viable employment options through human resource adaptations and workforce development. This portion of the report draws heavily on research conducted by former UC Berkeley, and current UCLA Ph.D. student Victor Pineda and his Spring 2006 report, *Toward Access and Opportunities: Economic Development of People with Disabilities in San Francisco*. Pineda's research is further reviewed in Appendix B: Economic Development for People with Disabilities.

Nationally, over 20% of the adult population has a disability that prevents or impedes them from working, caring for themselves, or making full use of their physical or mental capabilities. In San Francisco, roughly 150,000 people are disabled, approximately 19% of the population. While San Francisco is slightly below the national average, the disabled nevertheless constitute a significant portion of San Franciscans.

The majority (64%) of San Francisco's disabled population are adults between the ages of 21 and 64. This means that 18% of San Francisco's working age adults have a disability. While this percentage is relatively low compared to some of its peer cities, it represents roughly 95,000 people in prime workforce participation age, as illustrated in Figure 15 below.

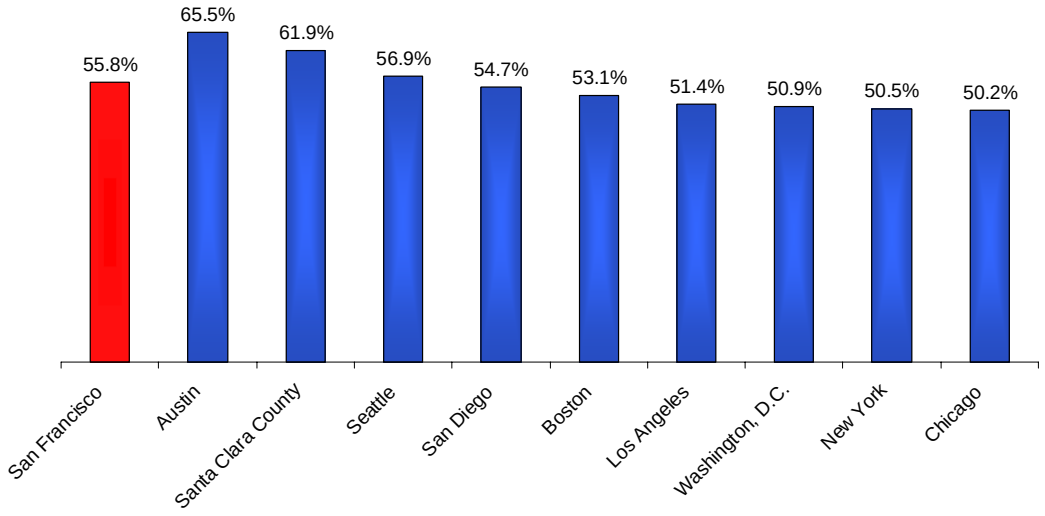
Figure 15. Comparison of Working-Aged Disabled Population Across Peer Cities



Source: U.S. Census, 2000 SF-3 Series

Fifty-five percent of working-age San Franciscans with a disability were employed in 2000. Approximately 42,000 were not employed, representing a significant share of the City's working age population. That said, San Francisco's level of labor force participation for adults with disabilities is relatively high compared to most of the other cities used for comparison. As the graph below indicates, only Austin, Santa Clara County, and Seattle are higher than San Francisco.

Figure 16. Comparison of Employment Rate of the Disabled Population Across Peer Cities



Source: U.S. Census, 2000 SF-3 Series

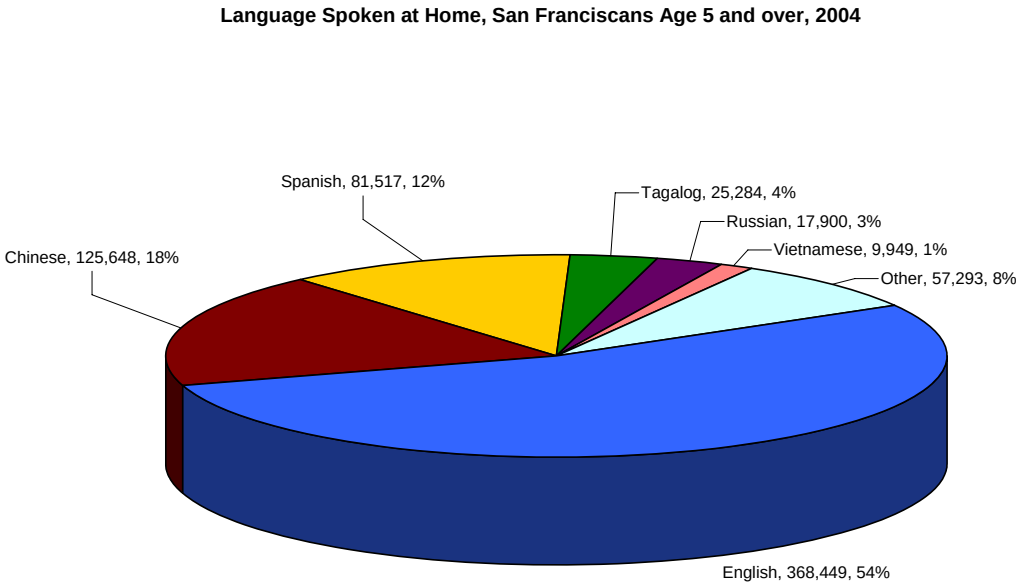
Linguistic Isolation

San Francisco is home to a tremendously diverse population with a high percentage of foreign-born residents. San Francisco's multi-cultural population is also multi-lingual. Nearly half, 46%, of all San Francisco residents speak a language other than English at home. As Figure 17 illustrates, Chinese[6] is by far the most common home language after English, followed by Spanish, Tagalog[7], Russian, and Vietnamese.

[6] 'Chinese' refers to any native language of China.

[7] Or other Filipino language; the vast majority speak Tagalog however.

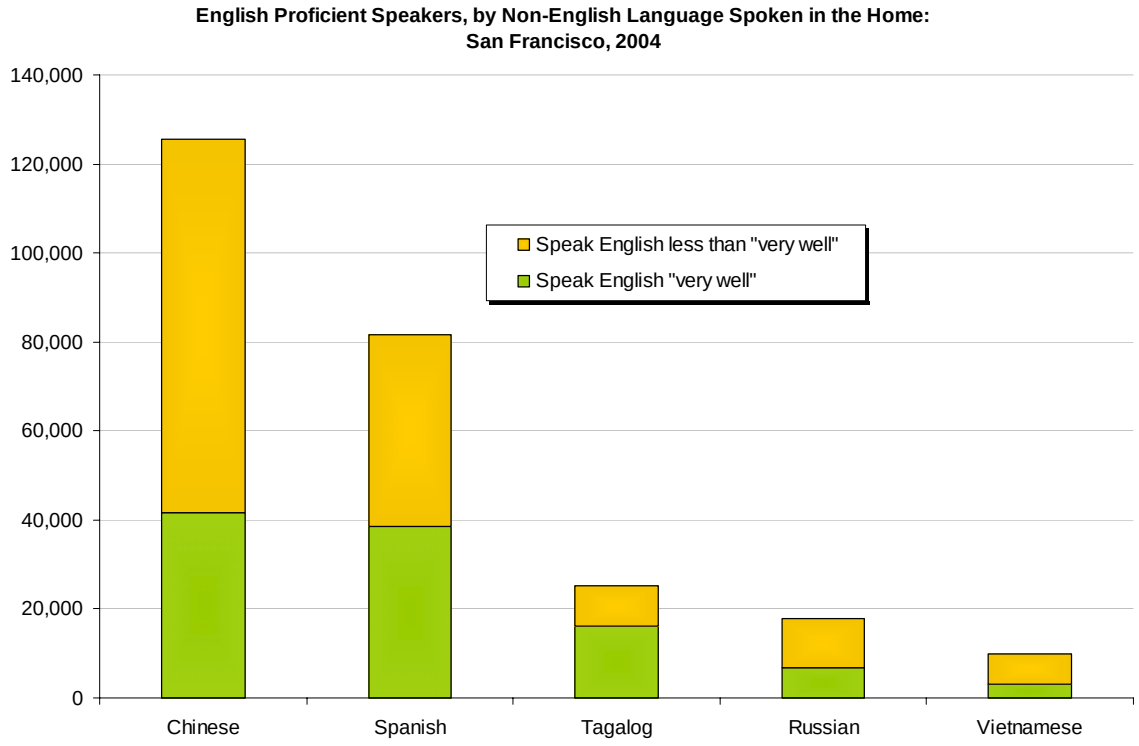
Figure 17. Comparison of Language Spoken at Home by San Francisco Residents



Source: U.S. Census Bureau, 2004 American Community Survey

Patterns of English proficiency vary significantly across nationalities. Well more than half of Tagalog native speakers, and nearly half of native Spanish speakers also speak English "very well", as defined by the Census. However, only one third to one quarter of the Chinese language, Russian, and Vietnamese speakers, speak English "very well", as Figure 18 indicates.

Figure 18. Comparison of English Proficient Population by Language Spoken at Home



Source: U.S. Census Bureau, 2004 American Community Survey

Linguistic proficiency represents a significant barrier to employment and earnings potential. Native Chinese speakers who do not speak English very well earn an average of $33,051 a year. Native Spanish speakers without English skills earn $27,711 a year, and Tagalog speakers earn an average of $31,917 a year.

Both disability and linguistic isolation impose significant barriers to employment and economic sustainability for segments of the population that are far larger than is commonly understood. These barriers ultimately result in lower rates of employment and labor force participation, as well as lower earnings potential for those people who do become employed. Given the larger trends of increasing disparity in the San Francisco economy, these barriers impose even greater burdens on people seeking a viable and secure economic situation in the City.

Small Business: Growth and Opportunity

An important part of the changes that have been occurring in San Francisco's economy over the past few decades is the rising importance of small business. Within the San Francisco economy, larger employers (employing 1,000+ employees) represent a declining share of San Francisco's total job base. While large firms have a decisive role in San Francisco's economy as generators of growth, small firms, individual proprietors, and self-employed individuals have become more significant sources of direct employment since the 1970s.

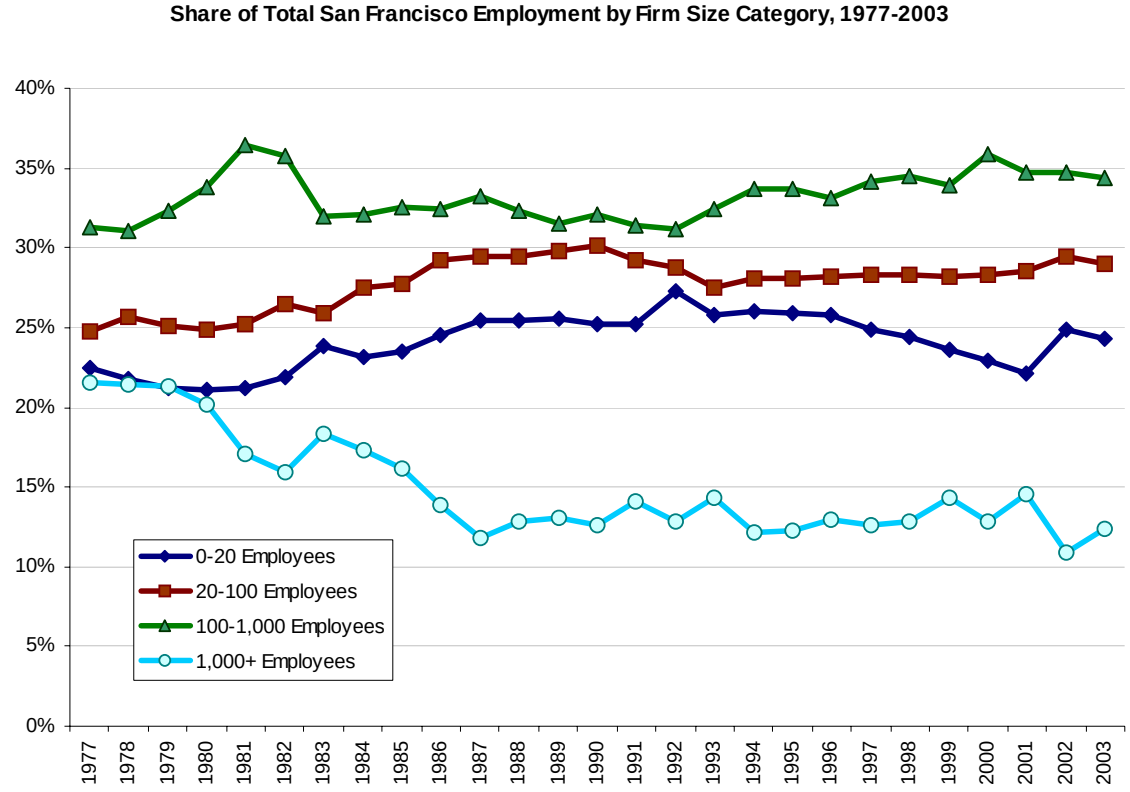
Trends in the Growth of Small Business Employment

There are various working definitions of small business, but for the purposes of this profile, it is not necessary to focus on any one of them to understand the importance of small business to the San Francisco economy.

For example, there are 24,965 companies in the City that employ between 1 and 20 workers. Combined these companies represented 85% of all companies in the City, and one out of every four jobs in San Francisco is based in a company of that size. Forty-three percent of all San Francisco workers work for companies with fewer than 50 employees.

In general, small business has been growing in importance as a source of employment across the developed world, since the 1970s. This shift has been particularly pronounced and important in San Francisco, a city with a long history as a headquarter center for global companies. Since 1977, the percentage of San Francisco jobs held by establishments with more than 1,000 employees has fallen by almost half. Figure 19 below illustrates these trends over the past 25 years, indicating a noticeable and acceleration reduction of large establishments.

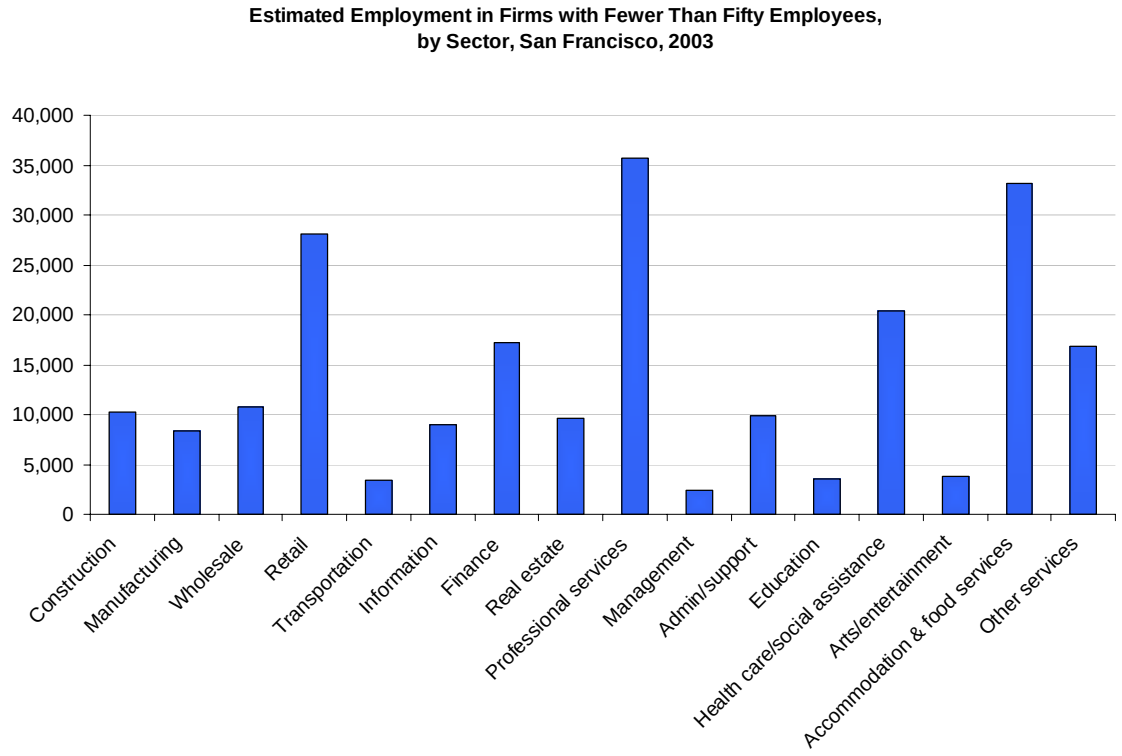
Figure 19. Share of Employment by Firm Size



Source: ICF estimates based on Department of Commerce, County Business Patterns: establishment counts by firm size class.
See Methodology Note [4]

Small businesses are unevenly distributed throughout the economy. Within San Francisco, businesses with less than fifty employees are most often found in the professional services, retail, and accommodation and food services (mainly restaurants). Figure 20 depicts small business employment by industry. Businesses with less than fifty employees in the retail, professional service, and accommodation/food services industries provide nearly 100,000 jobs in the City, and represent the majority of all small business jobs.

Figure 20. Industries Where Small Business Employment is Concentrated



Source: Department of Commerce, County Business Patterns

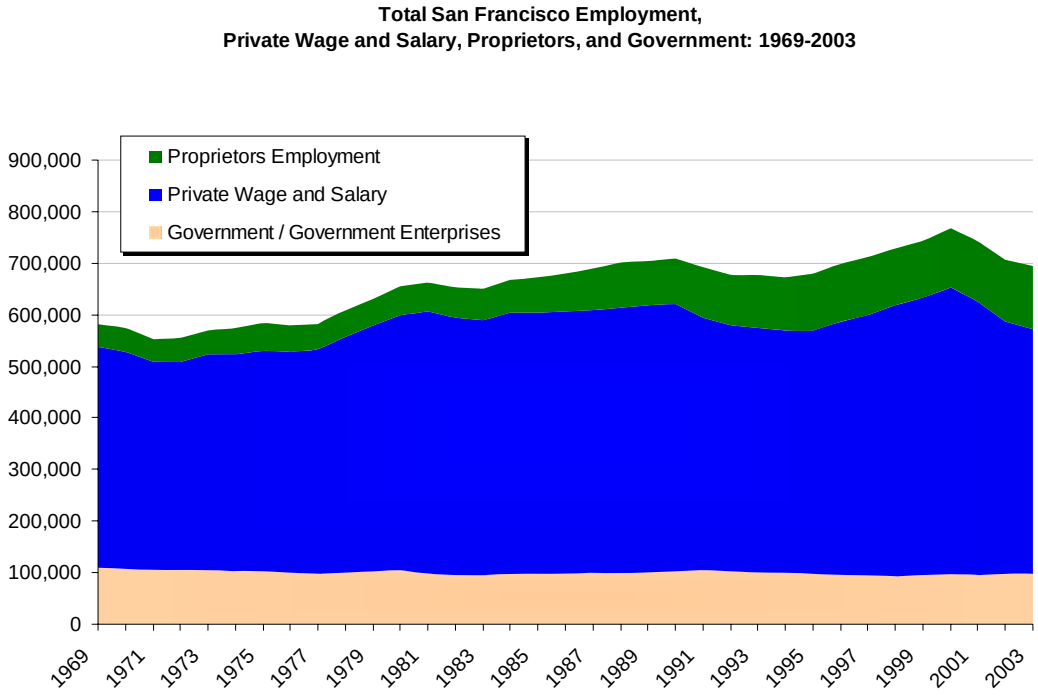
Proprietor and Non-Employer Firms

Proprietors (often called non-employers) are firms with zero formal employees, run by a single individual or partnership. Self-employed individuals are included in this category.

Earlier discussion has indicated the stagnation of wage-and-salaried employment in San Francisco since the 1970s, particularly in comparison to other Bay Area counties. However, this has not been the case for proprietor businesses. People working in sole proprietorships and partnerships have created an ever-increasing number of San Francisco jobs. And, according to the latest figures from the US Census Bureau, non-employers in San Francisco generated over $4.2 billion in receipts in 2004.

Figure 21 below illustrates that between 1969 and 2003, wage and salary employment in San Francisco increased by only 6%. Proprietors' employment increased by 169% during the same period. Government employment (excluding public education) declined by 12%.

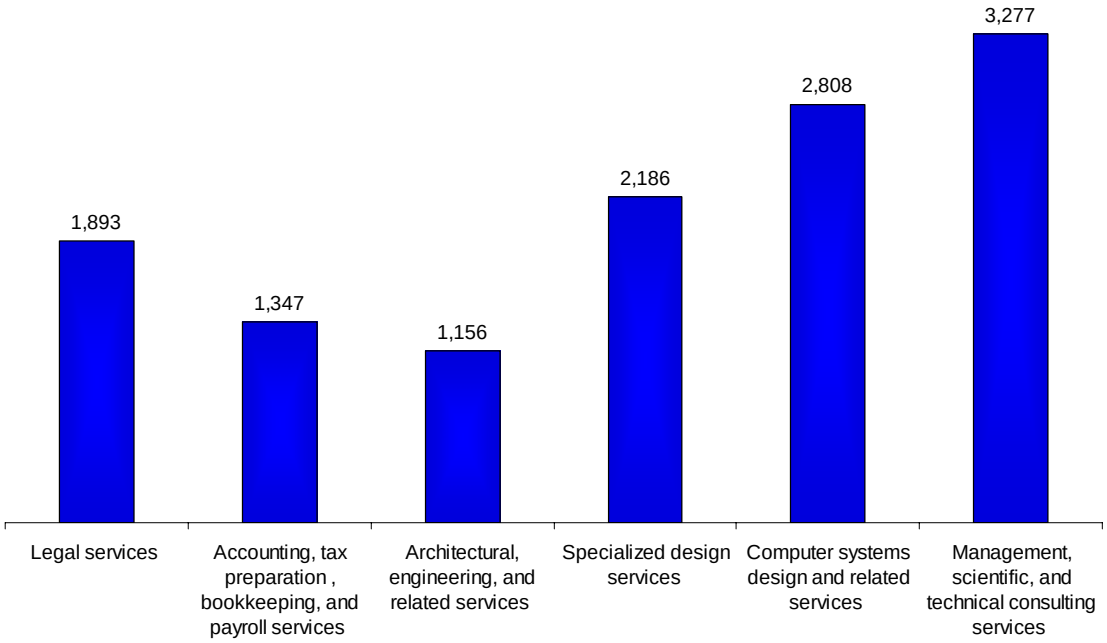
Figure 21. Total Employment in San Francisco by Type



Source: Bureau of Economic Analysis; Regional Economic Accounts

Non-employer establishments are particularly important within the professional services sector. There are about 20,000 people working independently in professional services in San Francisco. As can be seen in Figure 22, consultants, independent designers, and IT professionals are prominently represented.

Figure 22. Non-Employer Establishments In Professional Service Industries



Source: U.S. Census Bureau, Non-Employer Statistics 2003

Small and non-employer businesses have become a significant and growing source of employment in San Francisco's economy. Sole proprietorships and partnerships have grown significantly over the past 35 years, while wage and salary employment has grown much more slowly. Furthermore, fundamental economic trends such as outsourcing, innovation, and entrepreneurship have led to the rising importance of small instead of large business in San Francisco and nationally.

Entrepreneurship and Asset Poverty

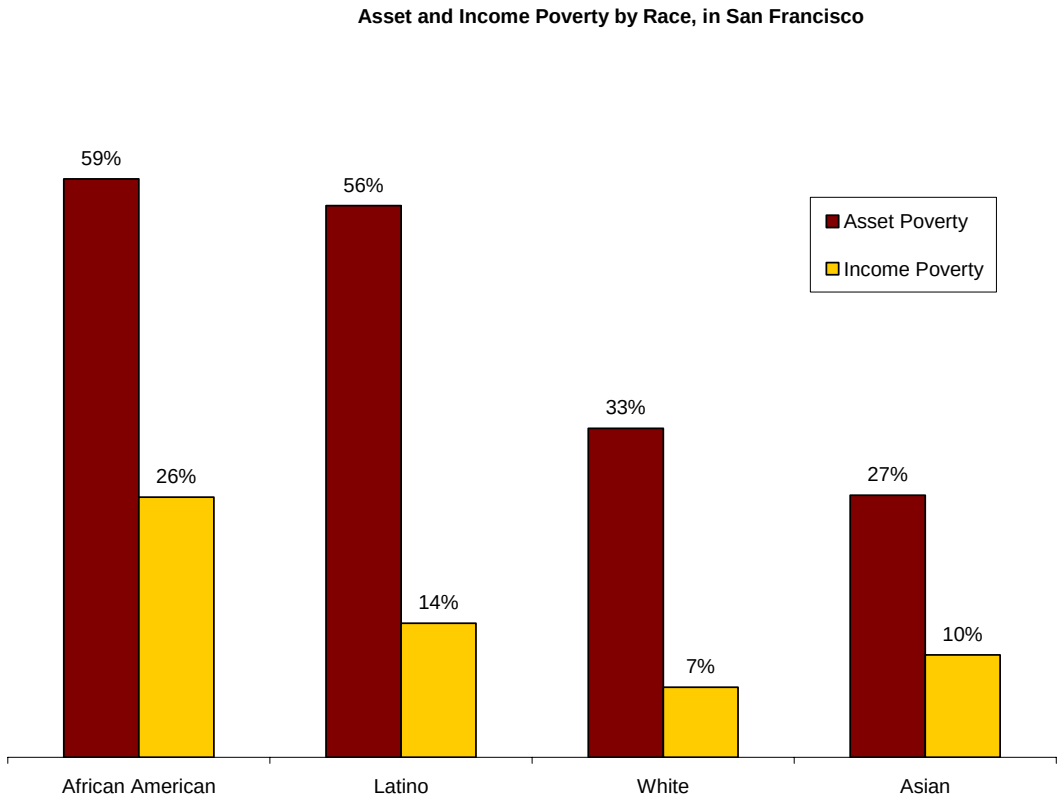
Sustainable middle-income wage-and-salary employment—the type of jobs that would support low- and moderate-income families staying in San Francisco—have been declining in the City for several decades. At the same time, the number of small businesses and self-employed individuals has grown substantially. These growing business ownership opportunities offer at least the potential of a viable economic future that can combine a sustainable income with the opportunity to build assets for greater economic security.

This combination of factors suggests that entrepreneurship needs to be viewed as an alternative, or a supplemental, path to economic sustainability. Expanding entrepreneurship, and stabilizing small business, is one key way to relieve *asset poverty*.

Asset poverty describes the inability of a household to meet its basic needs for a period of three months, if there was no outside source of money. Households that are asset poor do not have sufficient assets, including savings accounts, home equity, stocks and bonds, or equity in retirement accounts to provide for themselves by drawing against these assets for three months. While not necessarily income poor, an asset poor individual or family could not survive a stop in the flow of immediate income—like a salary—without falling into income poverty.

According to the Asset Policy Initiative of California, in San Francisco only 10.7% of the population meets the federal criteria for income poverty, but 37.4% are in asset poverty. As Figure 23 shows, significant differences are apparent when the poverty rates are disaggregated by race.

Figure 23. San Francisco's Asset and Income Poverty by Race



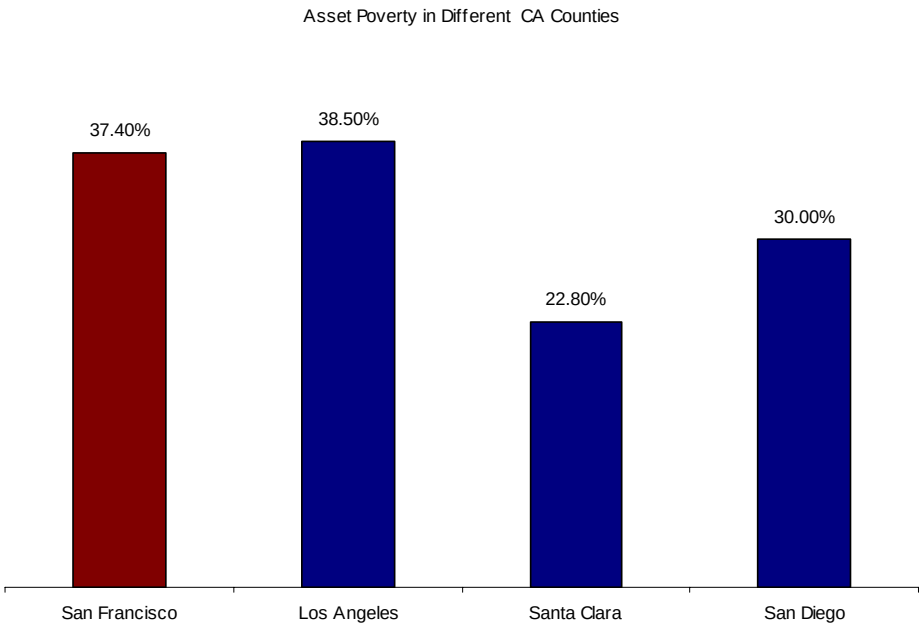
Source: Asset Policy Initiative California

In San Francisco, African Americans have the highest poverty rates in both categories. White, Latino and Asian groups are less vulnerable to being income poor, but Latinos are nearly as vulnerable to asset poverty as African Americans.

Asian populations are more likely to be income poor than white populations, but less likely to be asset poor. This is likely partly due to the large number of whites who are young adults in single-person households, and have not yet accumulated assets.

Compared with other California counties, San Francisco has a high level of asset poverty, but not the highest. Its asset poor population falls slightly below Los Angeles, as a percentage of all households. However, San Francisco has a significantly higher asset poverty rate than San Diego and Santa Clara counties, both cities that had a very high cost of living.

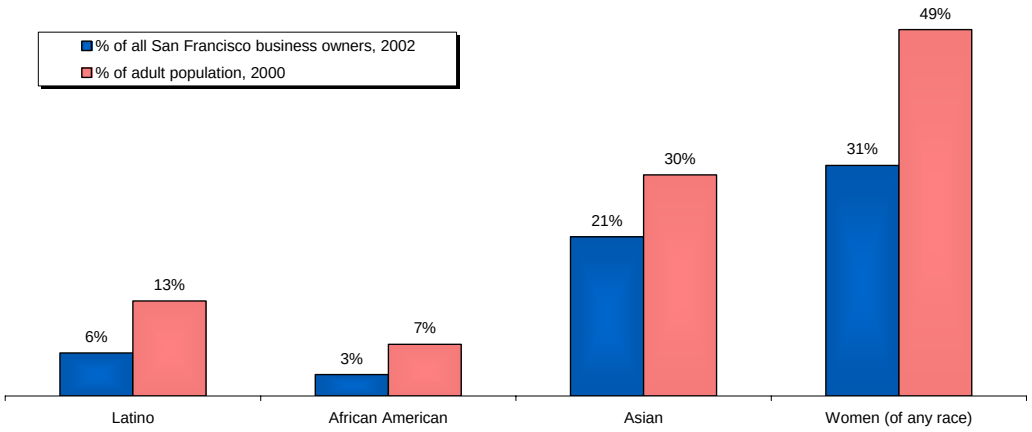
Figure 24. Asset Poverty Across California Counties



Source: Asset Policy Initiative California

Business ownership, along with homeownership and higher education, are three primary types of assets that can lift individuals out of asset poverty and create greater economic security. The prevalence of homeownership and higher educational attainment will be dealt with in a later chapter, but Figure 25 indicates that women and all minority groups are significantly under-represented among San Francisco business owners, relative to their share of the population. In other words, the groups that are most acutely suffering from the decline of sustainable middle income salaried employment, are at the same time, the least likely to benefit from the growing asset-building opportunities in owning a small business.

Figure 25. Rate of Business Ownership by Race and Gender in San Francisco



Source: Source: U.S. Bureau of the Census, 2002 Survey of Business Owners, 2000 SF-1 Series

San Francisco's' expanding small business economy will only fully address the City's asset poverty challenges if current barriers to business ownership and success are removed—for women, minority groups, and the other businesses that could become their customers and help sustain them. Small business is a significant and growing segment of the City's economy, and a well-considered approach to its prosperity will be an important part of a sustainable prosperity strategy for all of San Francisco.

Conclusion

This chapter has revealed several important aspects of San Francisco's recent economic performance. They express, as a snapshot, the outcome of economic forces that, left unaddressed, will likely continue to change the City's economy in the ways just discussed.

San Francisco, like many other central cities of growing metropolitan areas, has experienced significantly slower job growth than its suburbs for many decades, not withstanding the brief spurt of job growth in the late 1990s. Indeed, it is debatable if it is even meaningful any longer to speak of San Francisco as a central city in the classic sense, since it was surpassed in total employment by Santa Clara and Alameda counties during the 1970s.

Despite a largely stagnant number of salaried jobs, there have been significant shifts in the composition of San Francisco's job base. A continual growth of upper-income professional and technical jobs has been associated with rising average wages.

At the same time, a consistent decline in middle-income production and office/administrative jobs, steady growth in low-wage service jobs, and highly uneven patterns of wage increases among industries means that many workers in San Francisco have not benefited from rising average wages. These job trends have exacerbated income inequality in San Francisco, which has a pronounced racial dimension. The gap between white and minority earnings in San Francisco are considerably larger than in the U.S. as a whole, and widened during the 1990s.

The City's population has changed, through migration, in response to these trends, as low- and middle-income residents have increasingly left the City. They have been replaced by primarily young single people from elsewhere in the U.S. during the 1990s, and immigrants from around the world, but primarily Asia and particularly China.

Because of these and other demographic changes, San Francisco's population consists of large numbers of workers with barriers to employment, and in many cases multiple barriers to employment. These barriers, which range from limited English proficiency, medical problems, substance abuse, mental health problems, and disability, limit both the employment prospects and earnings potential of many residents.

Small business, and self-employment, have both grown in San Francisco at the same time these trends in salaried employment have occurred. Large business's share of the City's total job base has halved, and proprietors' employment grew by over 150% over a 35-year period during which salaried employment in San Francisco was essentially flat.

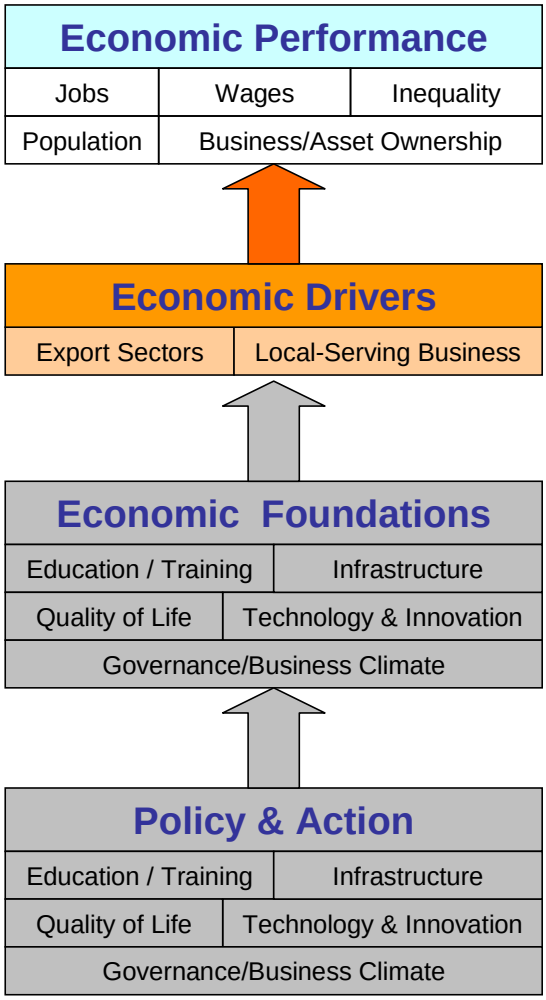
This expansion in small business has created an alternative to salaried employment for many San Francisco residents, and has the potential to address the City's high rates of asset poverty and the economic insecurity caused by fundamental shifts in its salaried jobs base. However, at present, racial and gender patterns of inequality in business ownership in San Francisco mirror the pattern in total income, indicating that these barriers to business ownership and success will need to be addressed before this potential alternative path to economic security can become a reality.

These trends are important starting points for the San Francisco Economic Strategy, because they represent the dimensions of economic life that people care about and can engage with to explore alternatives. However, these outcomes are precisely that—outcomes that cannot be directly changed in most cases, but can be reshaped by an alternative set of policies that influence the economic processes that generate them. These processes and policies that can affect them will be discussed in the chapters that follow.

Chapter 3: Economic Drivers and Strategic Priorities

This chapter focuses on the second element of the sustainable prosperity strategy framework: economic drivers. Economic drivers are the industries that shape a City's trading relationships with the outside world, and whose competitiveness effectively "drives" the overall City economy. Generally, what is distinctive about a city's economic structure—what makes San Francisco's economy different from Milwaukee's or Miami's—is this set of export sectors that defines each city's economic role in the broader national and global economy.

Figure 26. Sustainable Prosperity Strategy Framework: Focus on Economic Drivers



This chapter begins with a review of San Francisco's current economic structure, and how it has shaped the economic outcomes discussed in the previous chapter. It then goes on to present the results of community outreach that the project team conducted regarding what the goals of the economic strategy should be: what different economic outcomes should San Francisco be trying to achieve in the future? On the basis of this understanding of the current economic drivers, and the goals for change, four strategic priorities for the City's future economic drivers are developed, which will begin to align its economy more of the direction of the strategy goals.

Export Sectors and Local-Serving Business

Like every city, San Francisco's economy is fundamentally shaped by its trading relationships with the outside world. Cities emerged in history as concentrations of people who were not engaged in agriculture, and therefore needed some economic relationship with the countryside—based on trade, tribute, or taxation—to obtain the food they required.

In today's global economy, cities are deeply enmeshed in trading relationships with the surrounding area, other cities, and economic regions around the world. The range of products and services that the typical city imports is wide and becoming wider, as more cities, regions, and nations develop diversified economies and enter the global trading system.

For this reason, a city's ability to export is central to its economic development. San Francisco, for example, produces essentially none of its food, raw materials, or manufactured goods. Conversely, roughly one-half of the City's personal income comes from professional & business and financial services, much of which is exported to the outside world[8].

Table 2 provides more detail about what San Francisco sells to the outside world. The industries listed are the City's major net export industries, or its *export base*. Many of these industries fall within the professional & business or financial service sector, with a few in retail trade and hospitality.

[8] Exports, as used in this chapter, refers to good and services from San Francisco-based establishments that are sold to consumers outside of the City, not necessarily outside of the United States.

Table 2. Major Net Export Industries in San Francisco

Industry	*Exports Less Imports, 2001 ($ billion)*
Securities, commodity contracts, investments	$7.32
Monetary authorities and depository credit institutions	$5.39
Management of companies and enterprises	$3.10
Real estate	$2.86
Legal services	$2.56
Advertising and related services	$1.64
Architectural and engineering services	$1.49
Information services	$1.41
Management consulting services	$1.20
Food services and drinking places	$1.11
Machinery and equipment rental and leasing	$1.11
Insurance agencies, brokerages, and related	$1.02
Telecommunications	$0.97
Hotels and motels, including casino hotels	$0.63
Lessors of non-financial intangible assets	$0.62

Source: IMPLAN[9]

The ability of San Francisco, or any city, to sell exports hinges on the *competitiveness* of its businesses—their ability to succeed in global markets on the basis of low cost, high quality, innovation, responsiveness to customer needs, or any factor around which companies compete. As discussed in Chapter 1, the economic foundations of an area create a variety of competitive advantages (or disadvantages) for companies that compete in non-local markets.

We can summarize Table 2 and note that San Francisco's export base is essentially based on two main categories of exports: knowledge-intensive services (financial & professional services, media and high-tech) and experience-based services (tourism). These export activities drive San Francisco's economic growth. The better the City is able to accomplish them, the greater the growth potential throughout the economy.

The other private sector economic activities in San Francisco primarily serve local markets, including consumers, other local-serving businesses, and the export-oriented industries that drive the City's economy. In effect, these local-serving businesses are the supplier base of San

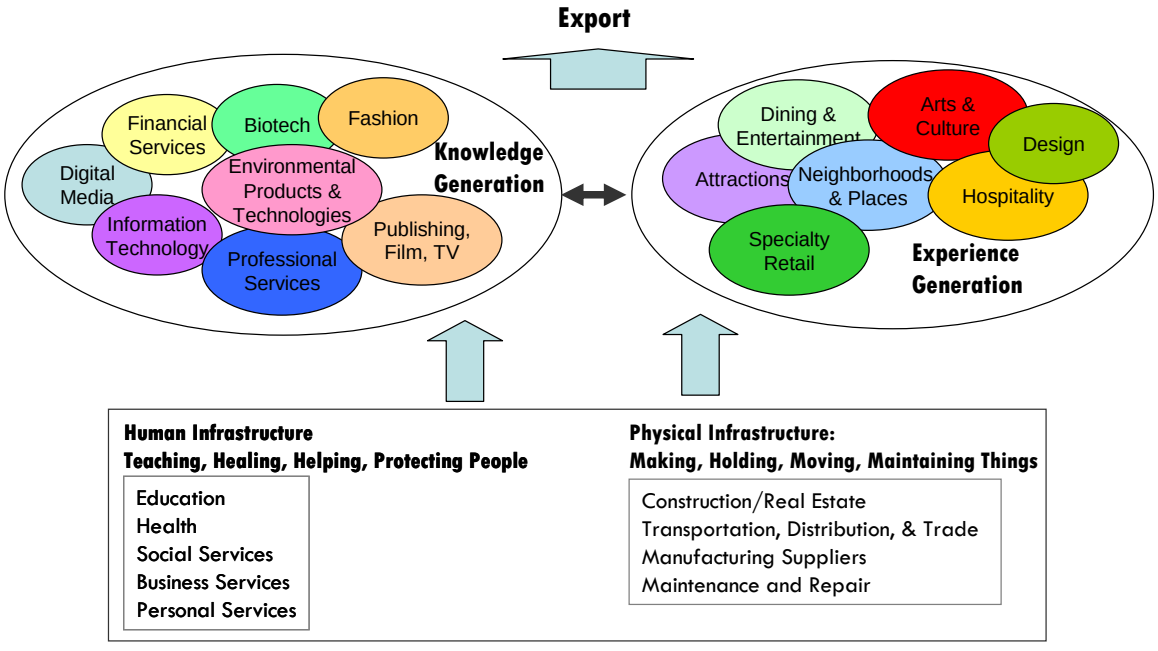
[9] The economic impact software known as IMPLAN contains economic accounts for San Francisco, including net exports by industry.

Francisco's export base, and they can have a critical impact on the competitiveness of the export base.

Figure 27 depicts the City's economic structure as having four major sectors: two export-oriented, and two local-serving. The export base is comprised of two interrelated industries—the *knowledge sector*, and the *experience sector*. The knowledge sector consists of companies who create economic value because of the knowledge they possess and generate for their customers. The experience sector is essentially the visitor industry in the broadest sense, and it includes companies who create economic value for non-residents based on the quality of the experience they provide, whether it in hospitality, arts and culture, museums, or other sources of recreation and entertainment.

Both the knowledge and the experience sector are indicated in Figure 27 as having a number of specific *industry clusters*. An industry cluster is a group of inter-related firms, specialized suppliers, and affiliated non-profit institutions that serve export markets. Industry clusters have become popular targets for local economic development strategy in the past decade, because economists have discovered that clusters require economic foundations—such as a skilled workforce—that are specialized to their distinctive needs. Specific industry clusters within these broad export sectors will be discussed later in this chapter, in the context of workforce development policy.

Figure 27. Economic Structure: Export Clusters in the Knowledge and Experience Sectors



The lower half of Figure 27 refers to the City's local serving industries—the human services sector, and the physical infrastructure sector. These industries represent the majority of private sector employment in San Francisco; most neighborhood-serving small businesses, for example, fall into one of these categories. Moreover, in different ways they are vital to the success of the

City's export clusters, as their productivity directly supports the competitiveness of their business customers. They enable the knowledge and experience generation by providing necessary education, health services, transportation and physical infrastructure.

Growth Trends in the Four Sectors

Following the logic of the strategy framework, many of the significant economic trends reviewed in the previous chapter are directly attributable to the specific sectors that drive San Francisco's economy, and their competitive performance. In the past ten years, the City has witnessed slight net growth in its knowledge sector, particularly in small, entrepreneurial internet companies during the boom of the late 1990s. These firms employed highly educated people in professional and technical services, and paid high wages. The knowledge sector in particular generated significant amounts of wealth in San Francisco, much of which was distributed, via high wages and other multiplier effects, to neighborhood-serving small businesses, particularly in affluent areas of the City.

The experience sector added considerably more jobs over the past decade, most of which went to workers without higher education and which paid low wages. San Francisco has lost jobs in most of the physical infrastructure sector over the past fifteen years, and also lost jobs among larger knowledge sector companies, and those doing more routine information processing. Many human service industries—like education and health care—performed well, and represent the most stable source of middle-income employment remaining in San Francisco.

Thus, significant trends like expanding inequality and the migration that is associated with it, as well as the expansion of small businesses, are directly tied to the structure of the San Francisco economy, and the competitive performance of its economic drivers and local-serving sectors.

Strategy Goals and Industry Impacts

The sustainable prosperity perspective on economic development does not involve merely accepting market forces and simply responding to changes imposed by the global economy. While not discounting the power of economic forces beyond the City's control, the strategy framework emphasizes how new policies change economic foundations and create new competitive advantages. These in turn can create new kinds of economic development that lead to different economic outcomes. Therefore, values and goals are at the heart of economic strategy, and research is necessary to identify what those goals should be.

Several goals come directly from the language of Proposition I, which created the economic development plan. Specifically, Proposition I requires the plan to address four aspects of the economy; job creation, opportunities for vulnerable populations; tax revenue, and a particular mandate on the concerns of small businesses.

However, the Mayor's Office of Economic and Workforce Development and its consulting team decided that additional community outreach was desirable in order to further refine our goals. In the Spring/Summer of 2006, a community survey was conducted that asked San Franciscans to rank the goals they thought the Economic Strategy should prioritize. The top 5 goals that came

out of the survey include **r**etaining existing businesses in the City, creating more jobs and new employment opportunities, investing in infrastructure to enhance residents' and workers' quality of life, ensuring stability in the City's economy, and encouraging new industries to grow in the City. For more information the community survey, see Appendix C: Goals and Objectives Community Survey Details.

These goals are similar to those expressed in Proposition I. There is a strong desire among San Franciscans to strengthen existing industries, instead of exclusively focusing on new or fast-growing industries that have not traditionally been part of the City's economy. There is also strong support for improving employment opportunities, and enhancing the quality of life for workers and residents. Among the public, there was favor for both economic stability as well as a desire to grow new industries, particularly industries that build on the existing strengths of the economy.

Similar results came from a series of public meetings, community group presentations and focus groups, each targeting a different business constituency in the City. Constituencies ranged from large and small business to neighborhood economic development organizations, community-based workforce development organizations, real estate developers, neighborhood associations, and the general public. Again, there was significant support for promoting economic growth and innovation by attracting and growing new industries, while at the same time sustaining and strengthening the City's economic base through the retention of locally owned businesses. Many participants were also in favor of encouraging entrepreneurship and supporting independent, small businesses. Overall, there was considerable similarity between the community and industry stakeholders, and the objectives outlined in Proposition I.

Goals and Industry Impacts

The most critical linkage in the sustainable prosperity strategy framework is the one between economic drivers and economic outcomes. The previous section described how growth trends in the City's four economic sectors substantially accounted for the major economic outcomes reviewed in Chapter 2. The strategic challenge is to identify *changes* to the economic drivers that would create different economic outcomes, in line with the goals just discussed.

It is possible to measure the extent to which every industry in San Francisco would advance these goals, but some simplification is required. Table 3 summarizes the results of all of the community outreach as three primary goals, each of which corresponds to a measurable industry characteristic that can indicate whether the development of each industry will advance that particular goal.

Table 3. San Francisco Economic Strategy Goals

Goal	Industry Characteristics
Create job opportunities by building on our strengths to promote greater overall economic growth.	Identify San Francisco industries with high local multiplier effect.
Ensure greater inclusion and equity in job opportunities, with an aim to reducing inequality.	Identify San Francisco industries that create quality job opportunities for residents without a university degree.

Ensure a sound fiscal footing for the City by encouraging industries with a positive fiscal impact.	Identify San Francisco industries that generate more tax revenue than they consume in services.

The first goal is to create job opportunities and greater economic growth in San Francisco by building on the City's strengths, instead of attempting to import a new export base. San Francisco industries providing the highest local economic impact were identified analytically based upon the strength of their *multiplier effect*.

When industries expand, they expand their expenditures on goods, services, and wages. The workers and companies that receive the boost from this added income in turn expand their expenditures, creating another round of job and income growth. The total amount of growth that the economy experiences because of the initial expansion is the industry multiplier. Each industry has a different pattern of local expenditure, so each has a different multiplier. Industries that have a larger multiplier better advance this goal, as they as they are more deeply connected to the rest of the City's economic structure.

The second goal of the economic strategy is to ensure greater economic inclusion in the hopes of reducing inequity. This goal reflects concern over San Francisco's rising economic polarization, highlighted in Chapter 2. It is critical for San Francisco to stem the tide by developing a broader array of quality job opportunities, as well as expanding small business opportunities.

Industries also differ in their occupational staffing patterns. Certain industries are better equipped to provide a broader range of quality jobs and, in particular, higher paying jobs for San Francisco residents who lack a four-year degree[10]. Industries that offer a higher percentage of average-wage jobs for residents who lack a four-year degree will better advance this goal than others, and this too can be measured for each industry in the City.

The final goal of the strategy is to ensure that San Francisco has a strong fiscal footing that enables it to provide public services. This goal was mentioned specifically in Proposition I. Again, industries differ in how much tax revenue they generate for the City, and the amount of services they consume. Each industry can be evaluated in terms of its contribution to payroll tax, property tax, sales tax, and utility tax to determine the net tax-take ratio for each job it creates. Certain industries offer a stronger net fiscal impact and therefore advance this goal to a greater extent than other industries.

These three impacts: the local multiplier effect, the availability of higher-paying jobs for workers without a four-year degree, and the net fiscal impact, were measured for every industry in San Francisco having more than 500 employees. Full details on the methodology and results of the industry impact analysis are provided in Appendix D: Industry Impact Analysis.

The industry impact analysis can be briefly summarized by sector:

[10] In Chapter 4, it will be seen that approximately half of the San Francisco labor force falls into this category.

Knowledge Sector—most industries in the knowledge sector had the highest impacts of any industries in the local economy. This is largely due to the high wages that these industries pay, which create significant multiplier effects for local-serving businesses in San Francisco, and which generate significant payroll taxes for the City. In addition, these industries did quite well in providing quality jobs for San Franciscans without a four-year degree. Only the physical infrastructure industries did better on that score.

Experience Sector—the experience sector industry impacts were more mixed, largely because retail trade industries have low multipliers owing to the fact that most of their revenue leaves the City to pay for the manufactured products. In addition, while industries in the experience sector do offer significant entry-level employment opportunities, they are not the source for as many higher-paying jobs for the less-educated as other sectors. However, the experience sector industries do score very strongly on fiscal impact, as they are the largest sources of sales tax and hotel tax revenue for San Francisco.

Human Services—the human services sector industries tend to have an average impact, with several industries offering many quality job opportunities, offset by average multiplier effects and low fiscal impacts, as many of these industries are tax-exempt.

Physical infrastructure—the physical infrastructure industries, along with the knowledge sector industries, have the highest impacts. The physical infrastructure industries offer the highest-paying employment to workers without a university degree, and their multiplier effects are relatively strong as well.

However important this impact analysis is, the strategy cannot simply focus on high impact industries without considering how easy it is to encourage them to develop, grow, and remain in San Francisco.

Strategic Priorities

The strategic priorities of the economic development plan are those segments of the economy whose targeted development will advance the goals of the strategy, both because these industries have the desired impacts, and because their growth is feasible given what we know about their past trends, and the City's economic foundations.

Of the four sectors, the experience and the knowledge sectors are especially important. Both of them have demonstrated a capacity for further growth over the long term, based on their growth trends in the past, and as the main components of the city's export base, their competitive performance will largely determine the trajectory of the entire San Francisco economy.

The Human Services sector has exhibited healthy growth, and is a source of many high-quality jobs. As a local-serving sector it has responded well to expansions in the local market, but does not drive the local economy. Because of this, there is very little the City could do to further stimulate its growth. The primary strategic goal associated with this industry is to ensure that San Francisco residents are well-prepared for, and placed in, the quality jobs produced by the sector in the City.

The physical infrastructure sector, on the other hand, is a local-serving industry whose job growth has not kept up with the growth of the rest of the City's economy. With the exception of the construction industry, which has generally seen healthy growth, the other physical infrastructure industries have declined substantially for many years. Because these industries provide relatively good jobs for workers without a four-year degree, strengthening this sector would advance the goals of the strategy; the challenge is reversing the trend of decline and there are limits to what the City can do to retain and grow certain segments of this sector such as the garment and heavy manufacturing, which are competing with much lower cost regions throughout the world.

The remainder of this chapter outlines four important strategic priorities for the economic strategy:

- Strengthening the Physical Infrastructure Sector
- Upgrading the Experience Sector
- Promoting Knowledge Sector Start-Ups
- Retaining Large Knowledge Sector Companies

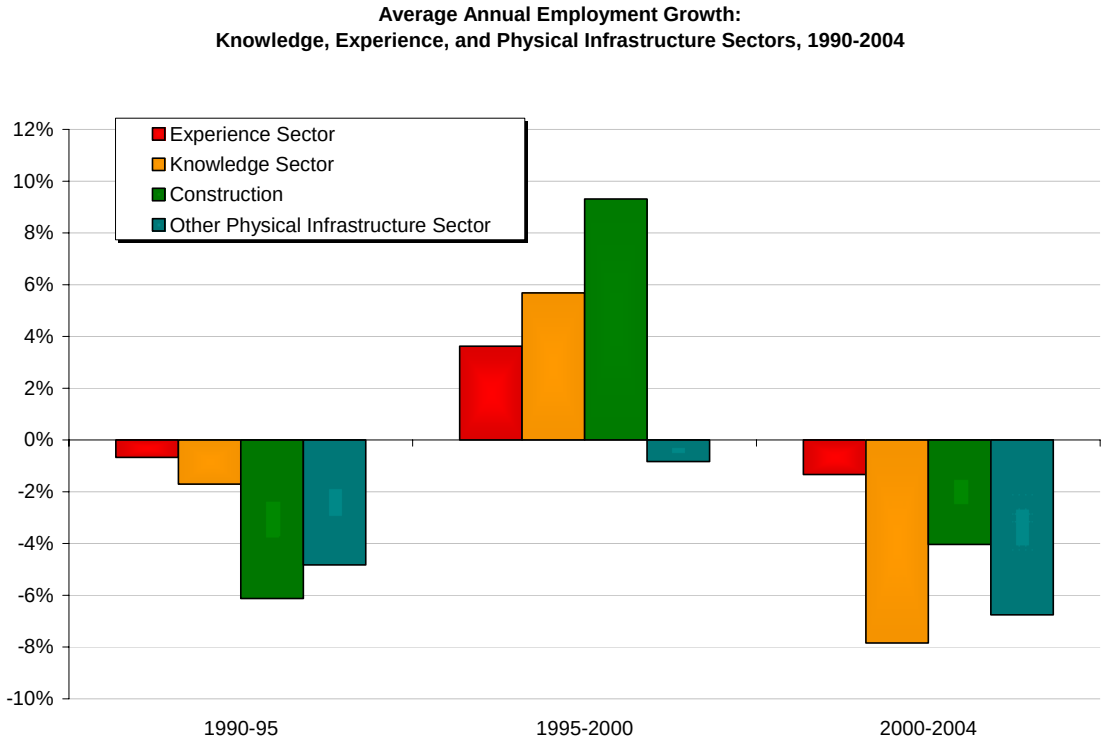
The rationale behind these priorities is explored in the next several brief sections.

Strengthening the Physical Infrastructure Sector

The physical infrastructure offers very high impact industries, but the likelihood for future growth is not high without concerted action, based on past trends. Historically, San Francisco's manufacturing, transportation, and warehousing had a much more central role in the economy, during the first one hundred years of the City's existence. For the past fifty years, however, manufacturing has progressively declined and narrowed in scope within San Francisco. Today, manufacturing in the City provides industrial and construction supplies, printing, some food processing, and other processed inputs that are consumed locally by industrial and final consumers.

Addressing the challenge of declining employment in this sector requires a deeper understanding of its new role as a supplier to the local export based industries. In particular, the question arises why employment in local-serving industries has declined while their business customers have grown (albeit slowly). Figure 28 illustrates this problem based on evidence from the last fifteen years. To clarify the issue, construction (a healthy physical infrastructure sector) is shown separately from the other physical infrastructure industries.

Figure 28. Trends in Employment Across Priority Sectors



Source: BLS Quarterly Census of Employment and Wages

The years 1990-95 were an economic downturn for San Francisco, and the City suffered moderate job losses in the Knowledge and Experience sectors that drive the economy. The job losses in the physical infrastructure sector, however, were much severe: averaging a 6% loss per year in construction, and about 5% per year in the other industries (manufacturing, wholesale trade, transportation and warehousing, rental and leasing, and maintenance and repair).

During the dot-com boom of the late 1990s, both the Knowledge and Experience sectors grew rapidly, and the physical infrastructure sector followed suit. Construction grew very rapidly, and while the rest of the sector didn't grow, it did have the smallest declines of any time in the last fifteen years. Contrary to conventional wisdom that suggests that the Knowledge and Experience sectors have only displaced blue-collar businesses in San Francisco, this evidence suggests that, overall, the blue-collar industries need growth in the City's knowledge and experience sectors in order to thrive. The many known examples of displacement of blue-collar employment were nearly made up, city-wide, by expansion elsewhere in the city.

After 2000, the dot-com collapse led to a downturn in the Knowledge sector, and 9/11 hit the experience sector hard as well. Again, a downturn in the drivers led to a disproportionately large downturn in the physical infrastructure sector. The virtual end of displacement of blue-collar businesses by Internet companies did not prevent a far more rapid decline in physical infrastructure jobs than occurred during the late 1990s.

The fact that these industries experience downturns particularly hard, and are not able to translate upturns into job growth, is likely caused by a combination of factors. In the first place, San Francisco is not alone – most other large cities are in the same situation, and across the U.S. physical infrastructure industries have been losing jobs due to automation, and to competition from Mexico, China and elsewhere.

The challenge for local-serving manufacturers is unique. In some cases, proximity to their market can be an advantage, such when the product is bulky, perishable, or requires frequent delivery. Perhaps more importantly, in some regions, the manufacturing supplier base has become closely integrated with its business customers: learning as they learn, innovating as they innovate, and catering specifically to their needs. In this way, the productivity benefits associated with learning and innovation in the export sectors can be linked to the physical infrastructure industries, improving their competitiveness.

Upgrading the Experience Sector

The broad Experience sector includes companies in the hospitality, specialty retail, arts, culture, and recreation industries. San Francisco excels at exporting the 'experience' of the City to both tourists and locals alike and therefore this sector encompasses much more than what can traditionally be considered the tourist industry. Trends in the experience sector indicate that, as a sector, its growth has been one of the strongest in the City over the past decade.

Despite the growth, many of the experience-generating industries are not high-impact, and therefore do not offer overwhelming benefits to the residents of San Francisco in terms of wages, economic multipliers, or tax revenue, with the exception of the accommodation industry, which is a major source of revenue for the City.

San Francisco's tourism industry is fundamentally based on the quality of the unique urban experience that is San Francisco, in contrast to other places that have constructed an elaborate dedicated infrastructure to support tourism. Many of the major visitor sites in San Francisco, such as the Cable Cars, the Golden Gate Bridge, Lombard Street and Alamo Square, were not designed as tourist attractions, but are emblematic of the experience the City offers to visitors, and its brand within the global marketplace. There is an intimate connection between investing in the quality of life that San Francisco residents experience, and strengthening the City's competitive advantage in a growing but increasingly competitive international tourism industry.

It also means that the experience sector has a unique impact on San Francisco's economy that has as much to do with generating indirect quality of life benefits as it does generating tangible jobs, business opportunities, and tax revenues. In recent years, the City has added a number of new attractions including museums and retail sites, which are largely supported by out-of-town visitors, but give residents a wealth of recreational opportunities they would not have elsewhere. The quality of life generated by these opportunities, in turn is vital to attracting and retaining the highly-skilled creative talent that fuels the City's other half of the export base, the knowledge sector.

Exploiting and deepening these connections between the knowledge and experience sectors will likely be a central element of all of the City's successful economic development efforts in the future.

The City needs to continue to grow the experience sector in ways that deepen and enhance the experience, and create new forms of value for visitors. In addition to growing the number of visitors, San Francisco needs to continuously improve the product, to develop new ways of encouraging visitors to spend more during their stay. One way to do that is to broaden the tourism product, by incorporating a broader range of neighborhoods, cultures, and experiences into the "San Francisco experience". Another way to do this is to progressively develop more unique restaurants, museums, attractions, boutiques, theaters, architecture, and other forms of the urban experience, in core tourism areas and elsewhere.

In many cases this latter strategy, in particular, depends on the quality of the workforce. Earnings in positions like food servers, retail salespeople, artists and performers, and other service workers can be significantly higher in higher-end establishments than in more mainstream one. In turn, becoming a world-class, higher-end business demands more service expertise from the workforce. The same relationships between education and training, productivity, and competitiveness in higher value-added production exist in the experience sector as in the rest of the economy.

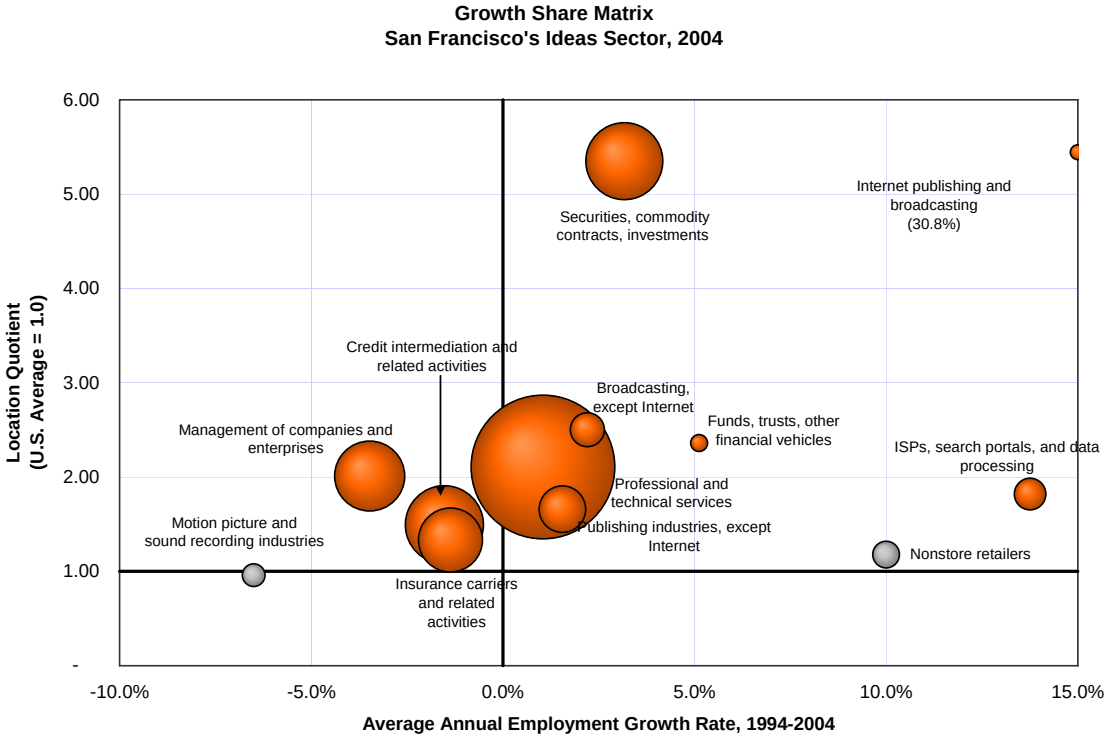
Promoting Knowledge Sector Start-Ups and Retaining Large Companies

The industry impact analysis indicated that industries in the knowledge sector, in general, are among the best at providing above-average paying jobs for workers without a four-year degree. This statement, however, needs some qualification. Figure 29 indicates the competitive performance[11] of each of the 3-digit NAICS[12] industries in San Francisco's knowledge sector.

[11] Figure 29 is a *growth-share matrix*, which simultaneously indicates a local industry's location quotient (y-axis), recent job growth rate (x-axis), and total employment (size of the bubble). The location quotient is a measure of industrial concentration, which is usually interpreted as the strength of a city's competitive advantage in the industry.

[12] The North American Industrial Classification System (NAICS) is used by the state and federal government to assign companies to industries, in order to publish industry statistics of standardized definitions.

Figure 29. San Francisco Knowledge Sector Growth-Share Matrix



Source: Bureau of Labor Statistics, Quarterly Census of Employment and Wages

The upper-right hand quadrant of the graph includes industries that have had a positive job growth rate in San Francisco from 1994 through 2004. These are mainly media, information technology, and high-wage financial and professional services[13]. The upper-left quadrant consists of traditional strengths of the San Francisco economy, which have declined in the City since the mid-1990s. These industries include mid-level financial and professional service companies, like insurance carriers and credit intermediation companies, as well as corporate headquarters.

These two sets of industries differ in other important ways. Those on the left—which have been declining in San Francisco—offer more quality jobs to workers without a four year degree than those on the right. In other words, the knowledge industries that San Francisco has naturally been growing have tended to promote income polarization, and the industries that could mitigate that have been declining.

Two other differences between the two groups are important. First, the declining industries on the left have been growing, as a group, elsewhere in the Bay Area, particularly in Santa Clara and Alameda counties. Secondly, their firm size is significantly different. The growing industries

[13] The extremely high growth rate for Internet Publishing and Broadcasting is due to its very small job total in 1994.

have an average firm size of only 11 in San Francisco; the average firm size of the declining industries is 21, nearly twice as large.

Why would establishment size be associated with a different type of job impact, across the Knowledge sector? The reason for this difference has to do with the way companies in knowledge-based industries typically grow, and the central role of innovation in firm creation.

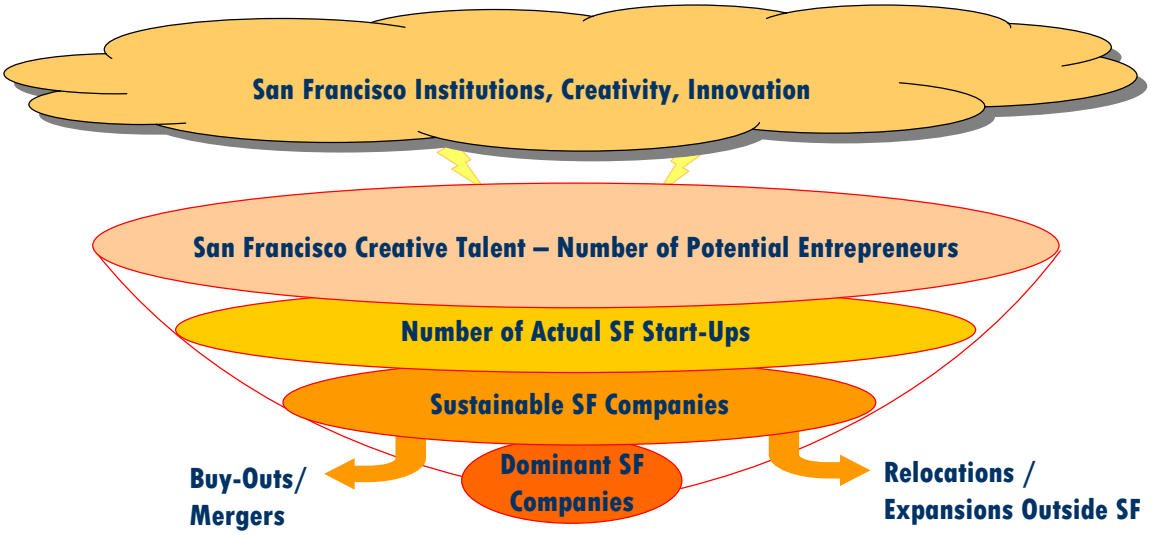
To put it simply, in order to create a niche for themselves in an existing market, new knowledge based firms tend to be based on new knowledge, whether it is a formal piece of intellectual property, a new skill, a corporate competency that has been developed in response to perceived new needs, or simply a creative new idea. The geographical evidence is overwhelming that this process of generating new knowledge sector firms is concentrated in a relatively small number of cities and regions with the right set of economic foundations, particularly a highly skilled workforce, leading research institutions, a desirable quality of life, and ample venture capital and other early-stage equity investment to fund start-ups. This combination of economic foundations, particularly when enhanced by a culture of experimentation, innovation, and tolerance for new ideas, creates a powerful incentive for new firm formation in knowledge-based industries.

San Francisco and the Bay Area are among the leading regions in the world in terms of these economic foundations, so it is not surprising that this region and this city exhibit such entrepreneurial dynamism, and have become the chosen location for so many highly skilled young people with the potential to be entrepreneurs in the future.

However, early-stage small knowledge sector firms have a very distinctive labor market effect, because they rely heavily on a very skilled, multi-tasking, highly experienced workforce that often know each other and expand through personal networks. Small knowledge-based companies are not renowned for investing in internal training, developing formal links with outside training providers, or hiring outside of their immediate circle. These companies lack the time and resources to make such commitments at the stage they are in, and the great risk of early-stage failure is such that they tend to be very conservative about hiring entry-level or otherwise inexperienced staff.

In fact, many innovative early-stage companies do fail, even those with excellent ideas, for a variety of reasons. The process of growth in local knowledge-based industry clusters is more like a funnel, in which the foundations of innovation just discussed build a critical mass of skilled workers and potential entrepreneurs. Some of these individuals go on to form new companies, some of these companies survive to be become profitable, sustainable enterprises, and some of those go on to become significant, publicly-traded, and even globally dominant companies. The diagram below illustrates this process.

Figure 30. Growth Funnel of San Francisco's Knowledge Industries



Once companies reach a larger size, their human resources practices standardize, and they are in a much better position to hire through the formal labor market, establish the kinds of clear job classifications and internal training programs that facilitate opportunities for inexperienced and less-skilled workers, and collaborate with workforce development systems. The labor market challenge, therefore, is to facilitate the development of small companies to a sustainable and eventually a larger stage.

It is clear that Silicon Valley and the Bay Area as a whole facilitate this process very well. The region's knowledge-based industry clusters feature hundreds of venture-backed start-ups, side by side with global giants like Hewlett-Packard, Apple, and Google. The evidence suggests that San Francisco, however, is primarily focused on early stage firms, which relates to the types of jobs the City is growing in its knowledge sector. This is the fundamental reason why the retention of larger knowledge-sector companies, as well as the continued expansion of start-ups to "feed the pipeline", both need to be priorities for the economic strategy.

Target Industries for Workforce Development

The strategic priorities just outlined are sector-specific, rather than industry-specific, because most industries in each sector are similar in terms of their relationship to the city's economic foundations. For example, all knowledge sector industries thrive on a generally skilled workforce and a high quality of life; all firms in the experience sector benefit from improvements in the City's public spaces and visitor amenities, etc.

However, there are some cases when it is important to be more specific than sectors. The most vital policy area where this is true is workforce development. Workforce development planning is increasingly concerned with preparing workers for specific job opportunities in specific industries, and this work needs a detailed analysis of labor market conditions relating to industry

employment, occupational employment, earnings, and the educational levels they typically require.

This involves targeting some specific industries, within each of the four major sectors of the economy, with which to start some industry-specific workforce planning that can help accomplish an important goal of the economic strategy: promoting quality jobs for San Francisco residents without a four-year degree. Within each of the four sectors, industries were targeted that met the following criteria:

- High Viability: the industry should have a capacity to add jobs in San Francisco or the region, either new or replacement jobs.
- High Impact: Industries should provide quality jobs for all skill levels, including access for entry-level or lower-skilled workers. These multiple skill levels should create opportunities for advancement within career ladders in the industry, to encourage individuals to invest in training and to promote and reward retention.
- Strategic Priority—the industry should meet critical skill needs for the economy.

Using these criteria, six industries were targeted across the four major economic sectors of the San Francisco economy. These industries and the sectors they are located in are:

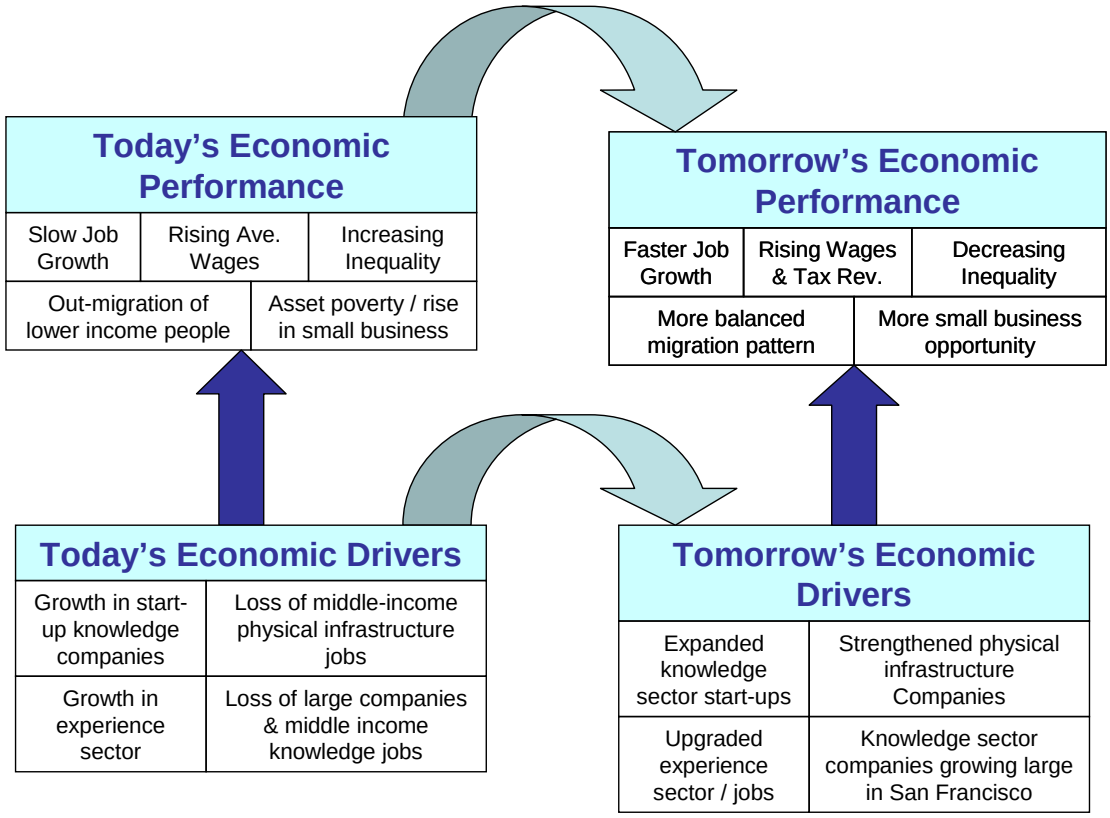
- Knowledge Sector:
  - Information Technology/Digital Media
  - Biotechnology
- Physical Infrastructure Sector:
  - Transportation
  - Construction
- Experience Sector:
  - Retail/Accommodations
- Human Infrastructure Sector:
  - Health Care

A significant amount of labor market analysis was conducted for these priority workforce industries, which can be found in Appendix E: Occupational Analysis of the Priority Workforce Industries.

Conclusions

The four strategic priorities outlined in this chapter form a vital bridge between the economic performance that San Francisco has experienced in the recent past, and a performance that would better correspond with the goals of this economic strategy. Figure 31 outlines this process.

Figure 31. Sustainable Prosperity Strategy Framework: Today's Economy and Tomorrow's Economy



Today's economic drivers are dominated by small knowledge-sector companies with a heavy reliance on highly-educated workers, and a low-wage experience sector. Middle-income jobs in larger knowledge sector companies, and in the physical infrastructure sector, have been declining. These trends in the economic structure are responsible for key findings in the economic performance review: slow overall job growth, rising inequality, and out-migration of low- and middle-income families.

Emphasizing the strategic priorities in the future will create a different economy. Expanding the range of knowledge-based start-ups, and retaining those companies in San Francisco as they grow, can, in time, deliver a new generation of middle-income jobs in emerging industries where the region has a strong competitive advantage. Effectively strengthening the physical infrastructure sector will stem the rate of job decline in those industries, protecting and perhaps one day adding more middle-income jobs. Upgrading the experience sector will ensure that San Francisco remains a global leader in this important industry, and can also provide higher quality jobs in those industries as well. All of these strategic priorities can drive the city's overall economic growth, create a favorable fiscal impact, and create greater business opportunity for

new and existing neighborhood businesses. Making progress on these strategic priorities means making progress on the current weaknesses in the city's economic foundations that currently inhibit their growth. The next chapter takes up these questions.

Chapter 4: San Francisco's Economic Foundations

As described in Chapter 1, a city's economic foundations are a set of local assets that enable the competitiveness of the export sectors that drive a city's economy, and therefore shape a city's capacity to control its economic future in an open, global economy.

Contemporary economic development has moved far beyond traditional understandings of the "business climate" as a narrow set of tax and regulatory factors that government imposes on business, and which always harm growth. In fact, local assets like an educated workforce, local research institutions, and a desirable quality of life are probably more important than cost factors in the global knowledge economy. This is a major reason why the Bay Area has been very prosperous, despite its high cost structure.

The following five economic foundations are those most commonly analyzed in economic development strategies:

Education and training: An educated workforce is absolutely critical to compete in a global economy where higher rates of education is one most powerful sources of competitive advantage possessed by U.S. cities. Higher levels of education not only teach specific job skills, they equip workers with the flexibility and critical thinking skills to adapt to a constantly changing work place and competitive environment.

Governance/Business Climate: Although cost factors and business regulation are no longer viewed as the only important element in economic development, they do play a role. Cities and regions must balance the productivity benefit that the other foundations provide, with the costs imposed on business. Within metropolitan regions, cities must ensure that the cost of doing business does not vary significantly from one city to another, which can promote destructive competition among jurisdictions. In addition, cities must recognize the vital strategic role of entrepreneurship and small business, and support the creation and survival of locally-owned start-ups.

Quality of Life: Aside from being a major goal of economic development, the relative attractiveness of an area is a major contributor to competitiveness. It encourages people to locate and remain in an area, building its local talent base. Conversely, areas with a less attractive quality of life have to pay higher salaries to recruit and retain staff.

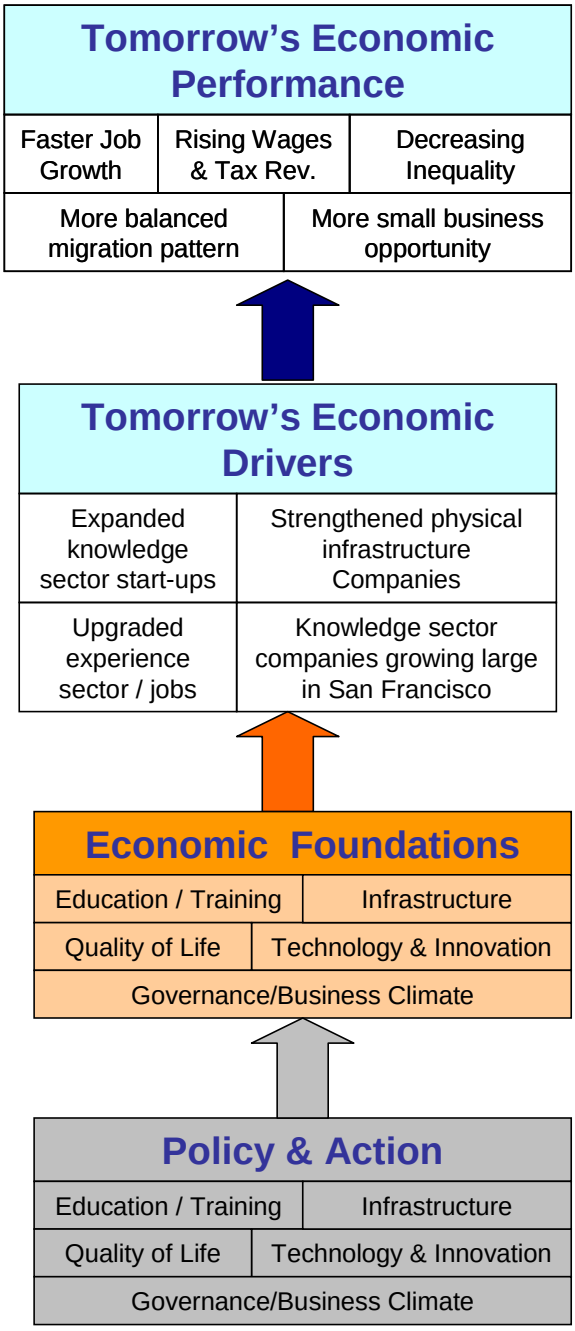
Infrastructure: Infrastructure has always been vital for economic development, but the expansion of international trade, and the global movement of people and ideas, have placed a premium on international air and sea links, and rapid telecommunication capacity. In addition, the continued growth of large metropolitan regions has increased congestion, threatening economic growth and environmental quality.

Technology and Innovation: Recent academic research has confirmed that high technology clusters are far more likely to develop in close proximity to major university and other non-profit research institutions. This institutional infrastructure, including teaching, research, laboratories, incubators, and technology parks are all economic foundations that support research-driven technology industries.

It is fundamentally important to realize that these economic foundations are heavily influenced by public policy, and in some cases are actively produced by governments themselves. Views of governments' role in economic development have advanced from a simplistic "regulation vs. free markets" opposition. On one hand, there is a recognition of the ways in which government action catalyzes economic development, through economic foundations, and on the other, there is a developing appreciation of how economic development is necessary to realize other important objectives, like social inclusion, public safety, and quality of life.

For these reasons, it is vital to understand the broad range of economic foundations that affect the competitiveness of San Francisco and the Bay Area. What about these foundations has created the economic structure and economic outcomes we have experienced, and what weaknesses can be strengthened to change the economy? Each foundation has a different role and different levels of importance for each sector of the economy. This chapter provides an analysis of the City's key foundations and examines their relative strength compared to other cities.

Figure 32. Sustainable Prosperity Strategy Framework: Focus on Economic Foundations



An economic strategy needs specific strategies and areas identified for change in order to achieve the overarching goal of creating sustainable prosperity. The analysis in this section will determine the strengths and weaknesses of the foundations on which the City's economy relies. Specific goals and recommendations to address such weaknesses can be proposed in Chapter 5.

A great deal of the research for this section was conducted by UC Berkeley graduate students in the Economic Development Studio offered by the Department of City and Regional Planning in

Spring, 2006. This studio was taught by Dr. Ted Egan, ICF's project manager for the San Francisco Economic Strategy and an adjunct professor at UC. While ICF is ultimately responsible for the contents of this report, the Berkeley students deserve substantial credit for much of this research.

Survey of Business Barriers and Business Focus Groups

The Survey of Business Barriers, mandated by Proposition I, was an invaluable research tool for understanding the strengths and weaknesses of San Francisco's economic foundations from the perspective of actual businesses located in the City. The survey asked San Francisco businesses to identify the most significant barriers that constrain their business expansion efforts, and covered all sectors of San Francisco's economy. Complete results of the Barriers Survey are located in Appendix G: Results of the Survey of Business Barriers.

To supplement the feedback from the Barriers Survey, focus groups with businesses were conducted in December, 2006 and January, 2007. These focus groups were designed to explore the major barriers to their business expansion, using the economic foundations concept to frame the discussion. Participants were asked to name their biggest business challenges, and then were encouraged to come up with potential practical solutions. Several of the ideas from the focus groups formed the basis of the recommendations in Chapter 5.

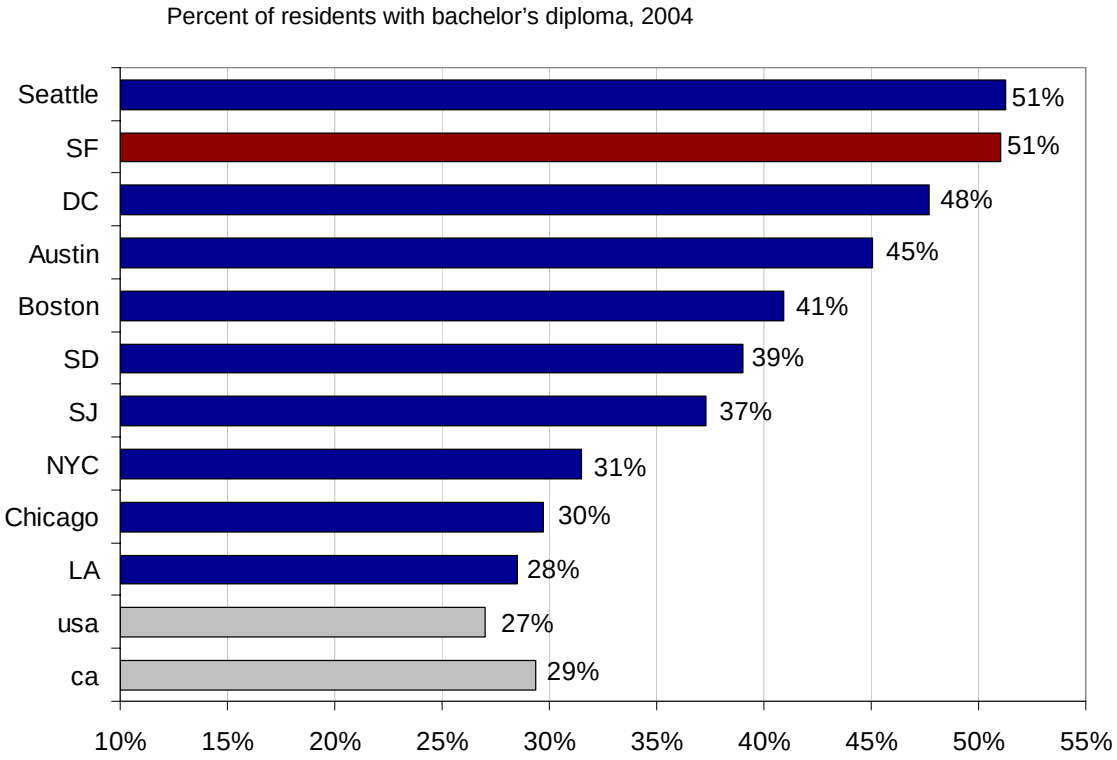
Education and Training

Educational Attainment and Immigration

This section, based primarily on the work of former UC Berkeley students Jeannette Blankenship, Jennifer Susskind, and Margaret Salazar, examines the performance of San Francisco's educational institutions as well as the characteristics of the workforce that those institutions partly helped to create.

San Francisco has a very well-educated workforce, and is particularly strong in educational attainment at the bachelors level and beyond. Together with Seattle, San Francisco is the only large city in the United States in which more than fifty percent of its adult population has a four-year degree or higher. As can be seen in Figure 33, even other major high technology and knowledge economy centers like New York, San Jose, and Austin have a significantly lower university educational attainment rate than San Francisco.

Figure 33. Comparison of Bachelor's Degree Attainment Across Peer Cities



Source: 2004 American Community Survey, US Census, residents over the age of 25

The proportion of the workforce with a bachelor's degree or higher is perhaps the single biggest reason that San Francisco can expect future growth from its knowledge-based industries, as creativity, skill, and problem-solving capacity is a fundamental source of value creation in these industries.

The increasing importance of highly educated labor to San Francisco's economy can be clearly seen from trends in educational attainment over the past fifteen years. From 1990 to 2004, the percentage of San Francisco adult residents with less than a high school education has declined, from 22% of the population to 16%. The percentage with only a high school education similarly declined, from 37% to 28% of the adult population. Conversely, the percentage of San Francisco adults with a bachelor's degree rose to 32% from only 22% in 1990, and the percentage with a graduate degree rose to 19%, up from 13% in 1990.

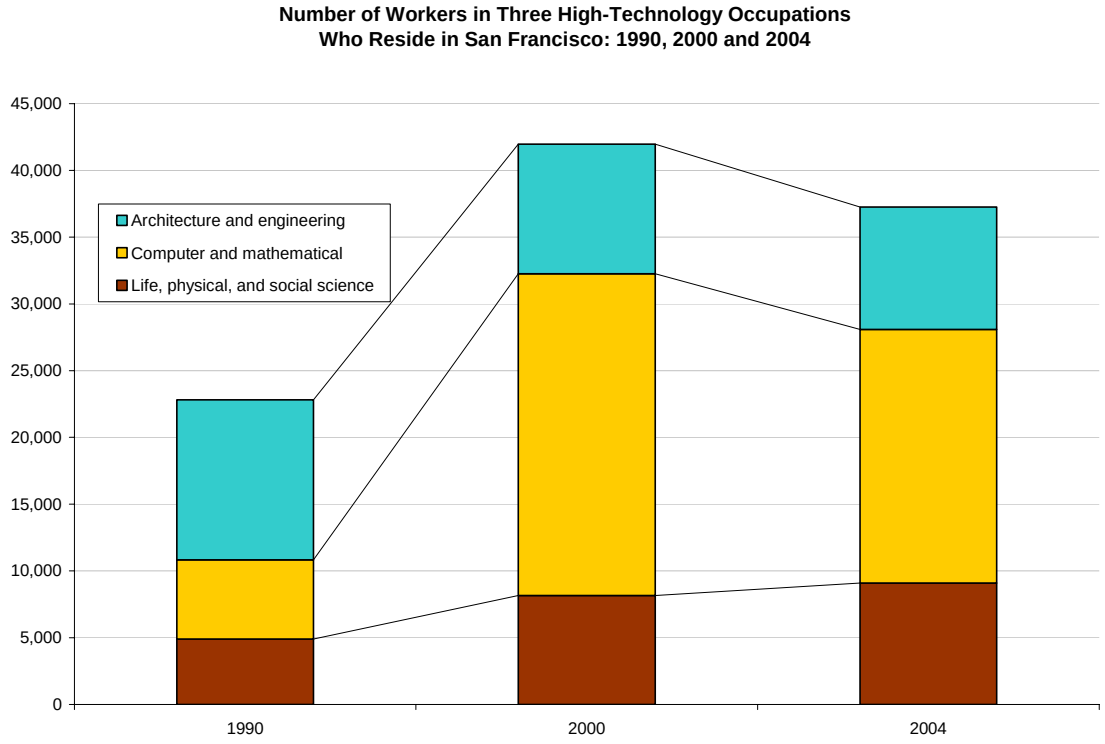
These trends are powerful evidence of the continuing attraction of highly skilled workers to San Francisco, increasingly, from all over the world. It is especially significant that this trend continued through the 2000-2004 period—the so-called 'dot-com bust'—when jobs for highly educated workers were in relatively short supply.

A telling measure of San Francisco's increasing attractiveness to skilled workers—and the closer integration of Silicon Valley and San Francisco—is the growth in the number of core high

technology workers that live in San Francisco. The growth in the high technology labor force in San Francisco exceeds the growth of its high technology job base.

While the number of workers in key high tech occupations living in San Francisco doubled during the 1990s, only about 10% were lost during the recession from 2000 to 2004. Figure 34 illustrates this trend.

Figure 34. Employment Trends in High-Technology Occupations



Source: US Census Bureau, 1990 Public Use Microdata Series and SF-3 Series, 2000

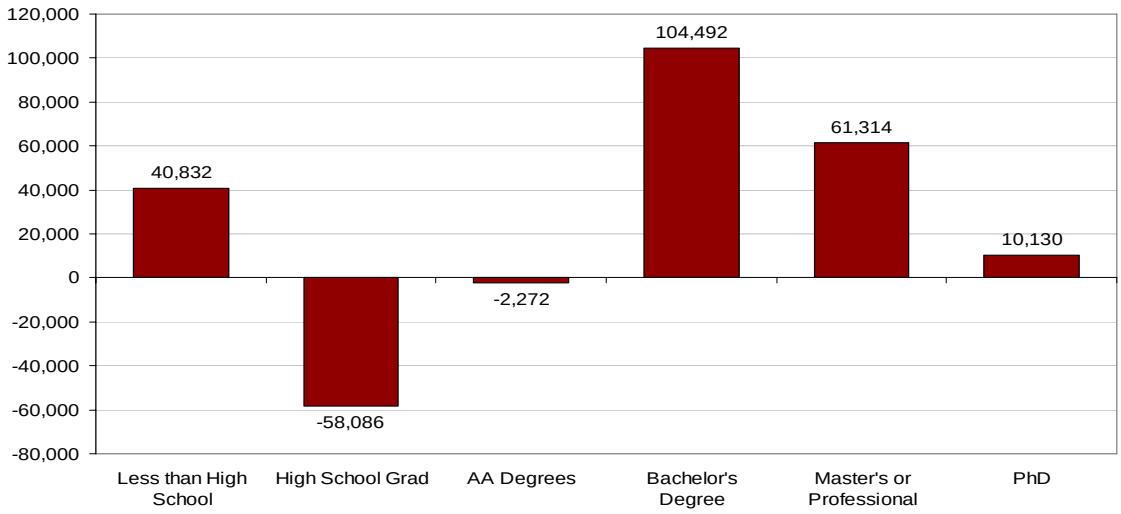
The increase in the relative educational attainment of the San Francisco workforce comes from two potential sources: the increased educational attainment by those who lived in San Francisco during the period, and in-migration trends that are heavily slanted towards the highly educated.

The inflow of highly educated and outflow of most categories of less educated residents is a Bay-Area trend, as evidenced by the chart below. From 1995-2000 the nine-county region witnessed a substantial influx of workers from elsewhere in the United States with at least a bachelor's education, and a smaller but still significant outflow of workers with only a high school education. Interestingly, the region also experienced an influx of U.S.-based workers with less than a high school education, emphasizing that the Bay Area also generates a demand for many low-skill workers. The population of workers possessing an Associate degree remained relatively stable, with only a slight decline.

These migration trends are driven in a large part by the economic forces discussed in the previous chapter. The region has lost many middle-income industrial jobs that were typically held by high school graduates. In turn, the regional economy added jobs at both the high and low ends, prompting an influx of workers both with high, and low, skill levels.

Figure 35. Migration by Educational Attainment

Domestic In / Out Migration for the Bay Area of Adults over 18 According to Educational Attainment: 2000



Source: PUMS Data 5% 2000

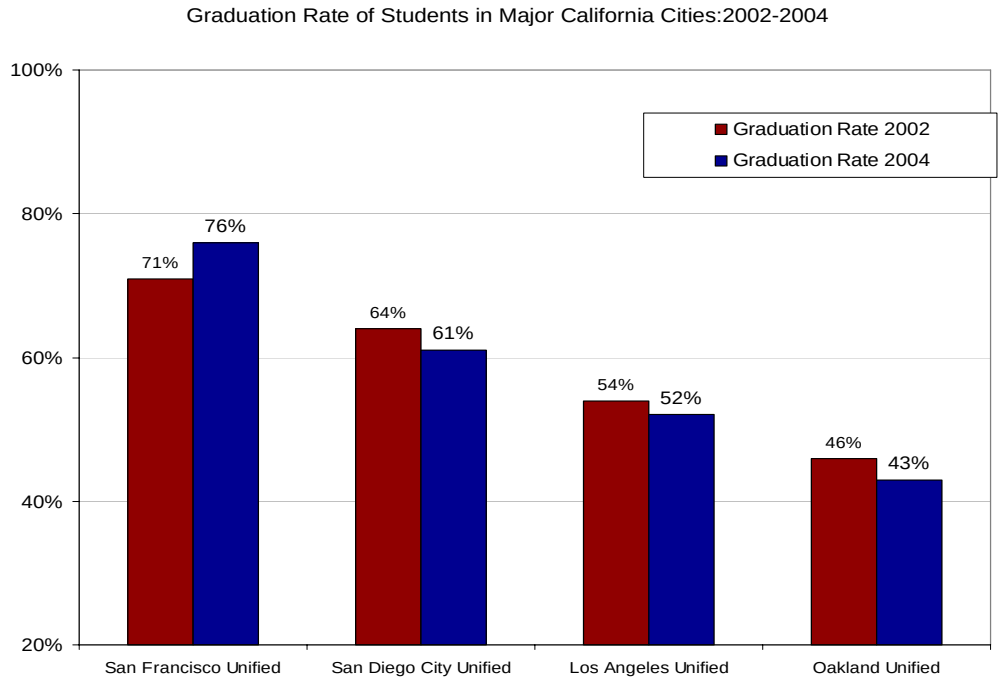
International immigration follows domestic migration trends. Recent immigrants are slightly less likely to have a high school education than San Francisco residents, but are more likely to have a bachelor's degree or above. The polarizing trend, noted in Chapter 2, towards employing a greater number of both high-skilled and less-skilled workers is affecting international migration as well.

San Francisco's Public K-12 and Community College System

Domestic and international immigration is helping to build San Francisco's highly educated workforce. Unfortunately, San Francisco's existing residents have not all been able to take advantage of the opportunities created by its knowledge-driven economy. Despite a public educational system that performs quite well compared to other cities and counties in California, it has not been sufficient to tackle the problem.

San Francisco Unified School District's overall graduation rate is significantly higher than the corresponding rate for the public schools in other major urban school districts in California such as San Diego, Los Angeles, and Oakland. Moreover, although it is only a short-term trend, San Francisco's graduation rate has been rising while the graduation rate of public schools in other cities has been declining. Nevertheless, only 76% of San Francisco public high school students graduate, as of 2004.

Figure 36. Trends in High School Graduation Rate Across California Peer Districts

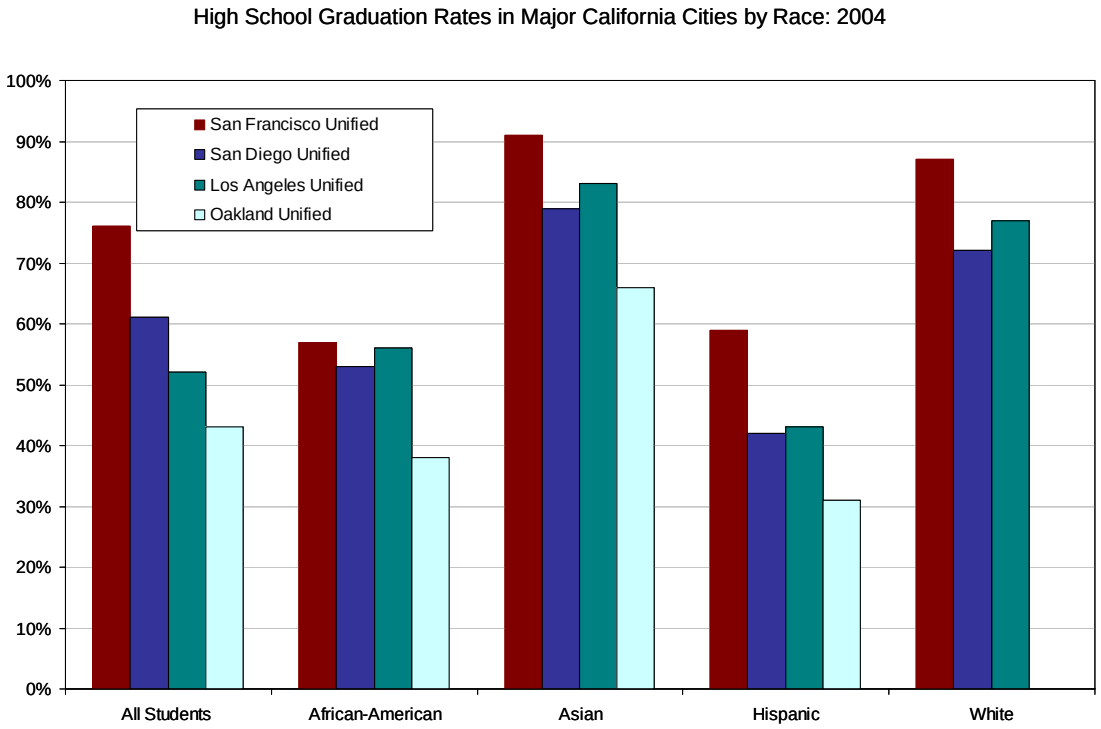


Source: Raising the Roof, Education Trust West, 2006

Racial disparities in income, discussed in Chapter 2, are fundamentally associated with inequities in educational attainment. There are significant disparities in high school graduation rate across ethnic groups in California, including in San Francisco.

For every racial group, however, San Francisco's graduation rate is higher than it is for any of the other major urban school districts in California, as Figure 37 indicates. While this is a positive statistic, there remains much room for improvement, particularly for African-American and Latino students. Fewer than 60% of students in both groups graduate.

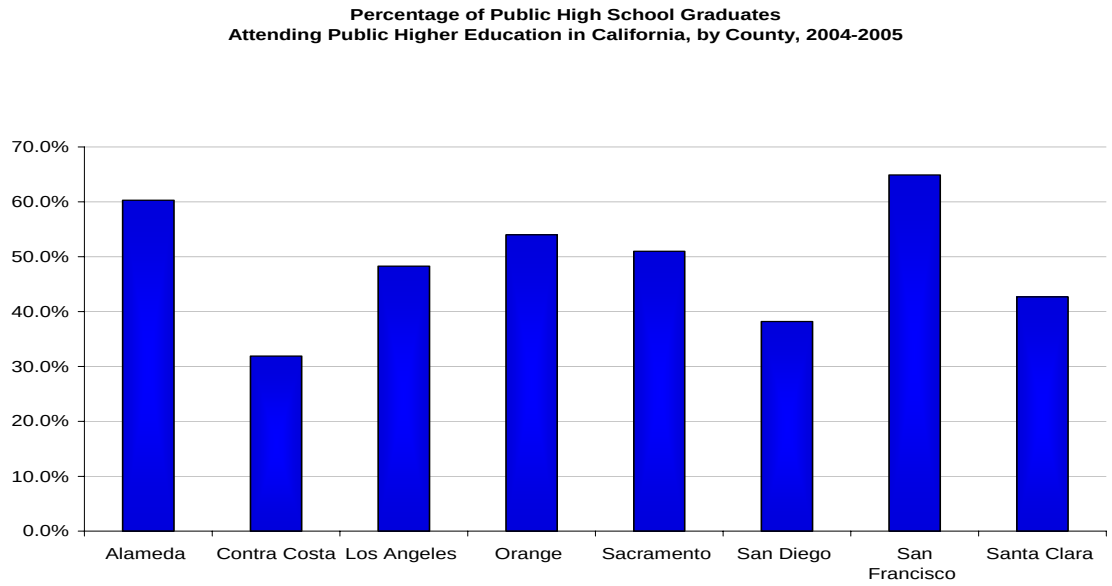
Figure 37. Comparison of Graduation Rate by Ethnicity Across California Peer Districts



Source: Raising the Roof, Education Trust West, 2006

San Francisco also does relatively well at job at linking high school graduates to higher education institutions. The percentage of San Francisco high school graduates that go on to attend public higher education in California is higher than any other county in the State.

Figure 38. Comparison of College-Going Rates of Public HS Graduates in Peer California Counties



Source: California Post-Secondary Education Commission

One major reason for this high rate of college attendance is the high, and increasing, college-going rate for Asian high school graduates in San Francisco. In the mid-1980s, for example, only 8% of Asian graduates from San Francisco high schools attended a UC campus. Today that figure is over 25%. Nearly 80% of Asian high school graduates attend a UC, CSU, or California community college.

Other ethnic groups also perform well compared to other areas in the state. By 2005, over 60% of San Francisco's Latino high school graduates attended public higher education in California, significantly above the state average for that group, and rising rapidly in San Francisco in recent years. The rate for African-Americans attending college, at about 40%, also exceeds the state average, although that rate has shown a disappointing lack of growth.

These relatively positive statistics must be kept in context. When the Latino and African-American graduation rates are only about 50%, and only about 50% of those graduates to on to continue their education, this means only one in four Latino and Black youth even get to college. While the educational attainment of Latinos and African-Americans has certainly risen in recent decades, and we can expect that to continue to the extent that the state continues to make investment in public education a priority, San Francisco is already far ahead of other cities in California, and there are probably no "quick-fixes" to the City's situation.

These stark facts only serve to emphasize that an economic strategy that can benefit all San Franciscans needs to work on multiple levels—continuing to emphasize education, but at the same time targeting industries that offer quality job opportunities for workers with every level of education, and building a workforce system that effectively links job seekers and job opportunities.

The Digital Divide in San Francisco

Computer and internet skills are a particularly important set of skills in today's economy, particularly in San Francisco, given its large knowledge sector. However, a significant digital divide remains, across the U.S., between white and non-white groups, and between men and women.

Research by UC Berkeley graduate student Andre Chan demonstrated that the digital divide in San Francisco was significantly wider than it is in many other cities, such as Los Angeles, New York, and Santa Clara county. Seventy-five percent of San Francisco households headed by whites had access to the Internet, while only 47% of households headed by non-whites had access. Seventy percent of men, but only 60% of women, had access to the Internet at home.

San Francisco's digital divide is being compounded by low levels of computer access and Internet access in public schools. In the number of computers per 100 students, San Francisco is below the California average, and significantly behind other counties such as Santa Clara, Alameda, Los Angeles, and San Diego. In classroom Internet access, San Francisco is even lower, compared to other counties in the state.

The digital divide is not just about hardware and Internet access; ultimately, it combines access to technology and the skills to use it productively. The surprising extent of the digital divide in the City is a notable weakness in its education and training foundations.

Demographics of Key Occupations

A review of the demographics of who currently[14] holds above-average-paying occupations in priority industry clusters will illustrate the challenge involved in broadening the opportunity associated with these jobs. Complete analysis of these demographics can be found in Appendix E: Occupational Analysis of the Priority Workforce Industries.

These occupations include jobs such as retail salespersons, secretaries and administrative assistants, cashiers, marketing and sales managers, miscellaneous managers, cooks, supervisors of retail workers, janitors and building cleaners, and customer service representatives. Of these, cooks, cashiers, retail salespeople, and janitors/building cleaners are low-wage occupations that provide above-average employment only to workers without a high-school diploma. They are also only associated with the retail/accommodations industry. Customer service reps are associated with the IT/digital media, and transportation industry, and provide above-average employment to workers with a high-school diploma (which most such workers have). Secretaries/administrative assistants, marketing/sales managers, and other managers provide above-average employment to workers with some college, and are found across a number of industries.

In terms of race and gender, in the low-wage, less-than-high school occupations concentrated in the experience sector (retail/accommodations industry), women (particularly Asian and Latina)

[14] The most recent source that can be used for this analysis is the 2000 Equal Employment Opportunity data released by the Census Bureau.

are disproportionately represented as cashiers and retail salespeople. Non-White men are disproportionately cooks and janitors. Customer service representatives, and especially secretaries/administrative assistants are over-represented as women (White women in the case of secretaries). The other large occupations offering above-average employment to workers with some college—marketing/sales managers and miscellaneous managers—are more gender-balanced, but are disproportionately comprised of whites.

Young workers are heavily concentrated in some of the lower-paying experience-sector jobs, especially cashiers and retail salespeople, but there are also opportunities in construction jobs.

Business Barriers Related to Workforce

In the Business Barriers survey, 75% of all responding businesses stated that the availability of skilled workers at competitive wages was a "very important" or "important" factor in their decision to expand in San Francisco or not. The large knowledge sector companies from the sample were especially focused on workforce, with 80% saying it very important.

The business focus groups comprised of small knowledge sector businesses, and physical infrastructure businesses, both mentioned workforce as significant challenges. The former group wanted to see stronger linkages between the public school system and the knowledge sector, including formal mentoring and internship programs, and partnerships around curriculum development.

Governance / Business Climate

Labor Costs and Housing

The San Francisco Bay Area is one of the most expensive regions in the world to do business, and businesses survive by passing along the high costs to their customers. Ultimately, much of the high cost is borne by customers outside of the region, who pay a premium for the exports produced by our export sectors, as described in Chapter 3. To the extent that our exported goods and services are innovative, high-quality, or otherwise deserving of a premium, the region's economy can survive with high and even rising costs. However, there is always a risk that rising costs will outpace the productivity growth that ultimately generates our competitiveness[15].

Labor costs are the largest cost component for most companies in San Francisco, and housing is the largest single expense that workers must absorb. San Francisco's high housing cost is well known, both locally and around the country. One of the most relevant comparative indicators of housing costs is median selected monthly owner costs, which is now estimated annually by the US Census Bureau as part of its American Community Survey[16]. According to the most recent

[15] Research by the Bay Area Economic Forum has suggested that this may be happening to the Bay Area. For example, see *The Innovation Economy: Protecting the Talent Edge*, February, 2006.

[16] The median monthly cost indicator is greatly superior to average housing sales price, because it takes into account what *all* homeowners pay, not simply those currently on the market. The housing expenses of all working residents is what drives the relationship between housing and wage rates. It is also a much better indictor of affordability, since when mortgage rates

data available from the US Census, San Francisco homeowners with a mortgage had a higher median monthly housing cost ($2,558) than in any of the other peer cities reviewed, including Manhattan[17], Los Angeles, San Jose, Washington, Boston, and several other high-cost areas.

However, three caveats must be applied to this important fact:

First, many San Francisco homeowners do not have a mortgage[18], and those that do not pay a median monthly cost of only $402. This brings the median monthly housing cost across all homeowners down to only $1,871 dollars a month, which ranks San Francisco's costs behind San Jose's.

Secondly, workers in San Francisco earn very high wages—only workers in Manhattan and Santa Clara County earn more on average. Thus, the average San Francisco worker has more to spend on housing, or, conversely, housing applies less upward pressure on wages in San Francisco than it does in some other cities. Figure 39 indicates that homeowners of San Diego, Los Angeles, Seattle, Austin, and San Jose all pay a higher percentage of their income to housing, on average[19], than those in San Francisco.

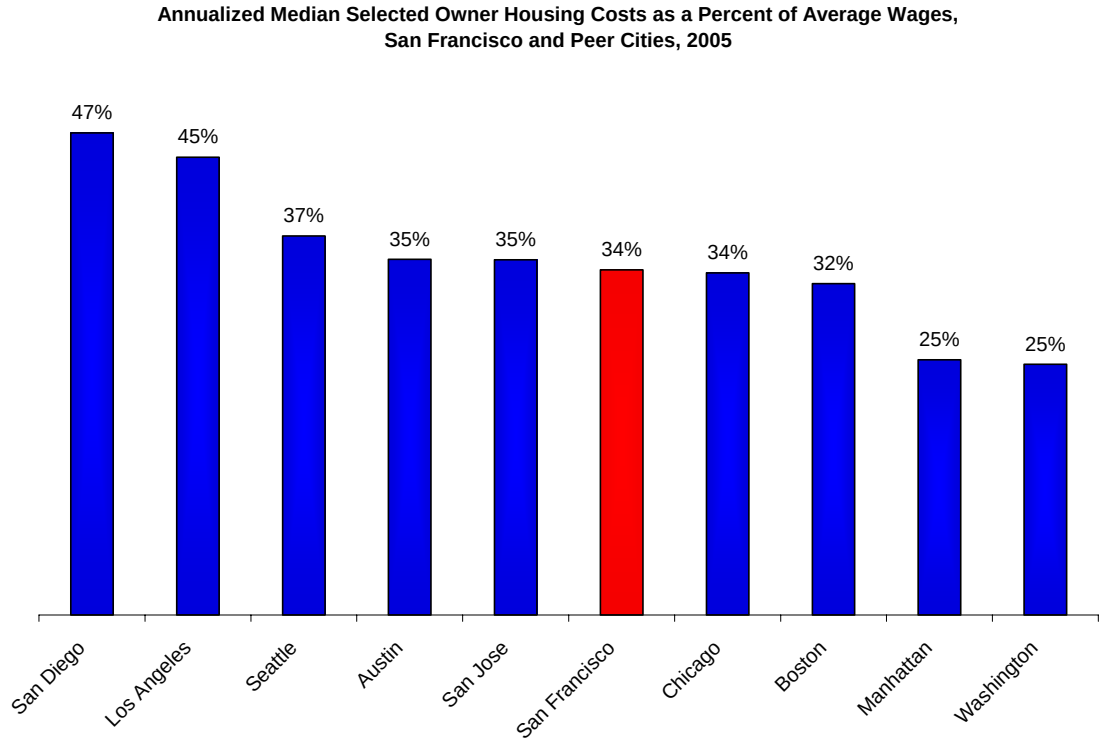
decline, housing prices can rise much faster than median monthly payments. In fact, this is exactly what happened in San Francisco during the early 2000s.

[17] New York County, which has considerably more expensive housing than the combined five boroughs of New York City. Manhattan was the only county used in the analysis of housing costs.

[18] Since Proposition 13 was enacted, homeowners have a strong incentive not to move, to preserve their low property tax payment.

[19] Strictly speaking, we have to assume that median costs and average costs are identical for this statement to be true. It is likely not far off the mark, however.

Figure 39. Annualized Median Selected Owner Housing Costs as a Percent of Average Wages

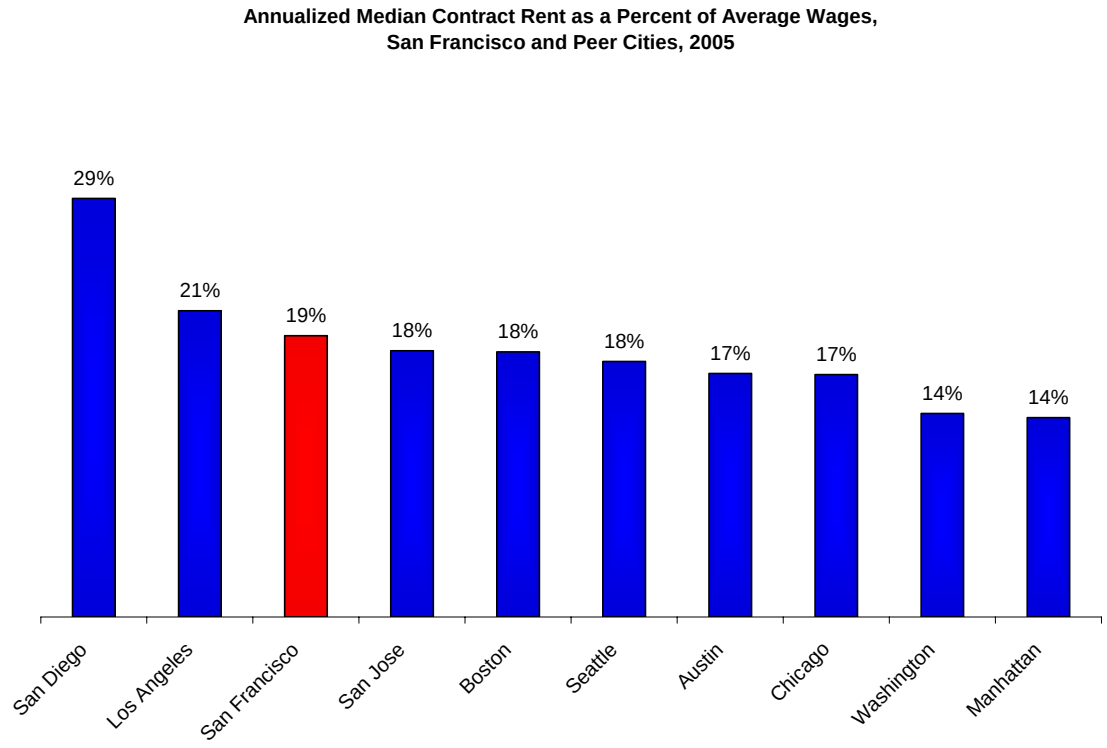


Source: US Census, 2005 American Community Survey; Bureau of Economic Analysis Regional Economic Accounts. Note: Average wages are county-based, housing prices are city-based.

Third, most San Francisco households do not own their home. Sixty-two percent of San Francisco housing units are occupied by renters, and the median contract rent in San Francisco is $1,068—also second only to San Jose[20]. When San Francisco's high average wages are figured against an annualized median renter's cost, San Francisco ranks third. This is certainly quite high, but not extremely out-of-line with similar figures in cities like Boston, Seattle, Austin, San Jose, or Los Angeles. As Figure 40 indicates, only San Diego is far out of line with the percentages in the other peer cities.

[20] Median contract rent – the median rent paid across *all* renters, is significantly lower than the asking rent for units now on the market, because of the prevalence of rent control and other market imperfections.

Figure 40. Annualized Median Contract Rent as a Percent of Average Wages



Source: US Census, 2005 American Community Survey; Bureau of Economic Analysis Regional Economic Accounts

Inferring exactly how the City's housing costs exactly affects labor costs, competitiveness and economic development prospects—which is the economic strategy's chief concern with housing—is extremely difficult to do with great precision. As Chapter 2 demonstrated, the wages earned by different San Francisco workers vary significantly from the average, and the actual housing costs paid by residents also vary from the median. There need be no clear relationship between these two variations either; a low-wage renter may very well pay more for housing than a long-time homeowner with a high-paying job.

One thing is clear, however. San Francisco's unquestionably high market price for rental and owner-occupied housing does not necessarily mean that the average San Francisco resident is more burdened by housing costs than they are elsewhere, because of the high and rising average wages in the City.

City Taxes in the Bay Area Context

The productivity factors—largely education, spatial concentration, and globally competitive industries—that are behind the Bay Area's high wages are largely regional in scope. The spatial integration of various parts of the Bay Area creates, to a certain extent, a regional labor market that explains why metropolitan Oakland, San Francisco, and San Jose are all among the highest

income areas in the country. Similarly, the most significant cost factors, such as housing, are regional in scope as well.

In this integrated region, the progress San Francisco makes in education will undoubtedly raise the productivity of companies located outside of the City, where some of those educated people will ultimately work. Conversely, whatever progress San Francisco can make in making housing more affordable will provide some wage relief to companies outside of the City, as well as those inside. To an even greater extent, given San Francisco's role as a regional employment center, San Francisco-based companies can benefit from educational investments and housing affordability measures that occur elsewhere in the Bay Area.

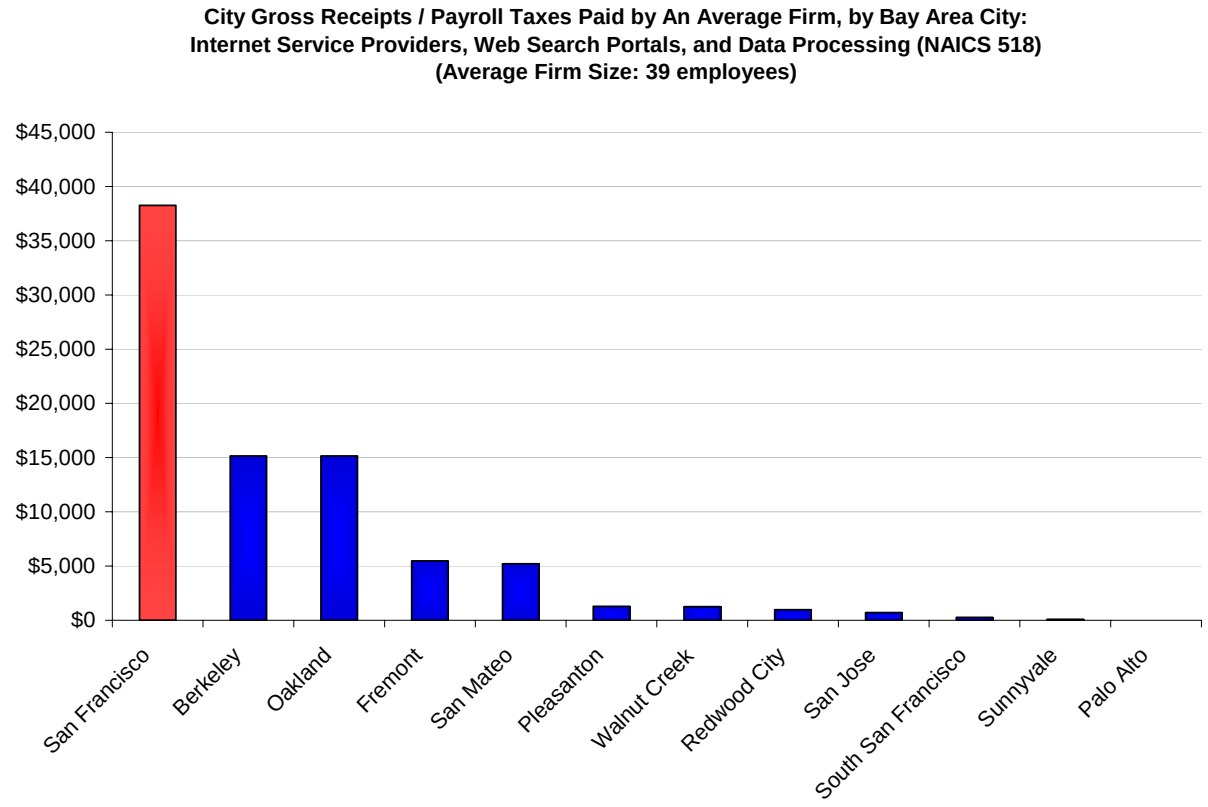
In other words, most of the productivity and cost factors in the Bay Area are region-wide, and not specific to a single city. However, one of the most fundamental findings in Chapter 2 is that San Francisco's job growth has been notably slower than that in other Bay Area counties for some time. If San Francisco-specific productivity and housing cost factors don't explain that difference: what does?

There is no doubt that San Francisco's business tax structure is significantly different from those in surrounding communities. Many of these cities are viable alternative locations for many San Francisco businesses. It is important to understand whether or not this tax difference creates a competitive disadvantage for San Francisco-based firms, compared to firms in other Bay Area cities.

The Kosmont-Rose Institute's Cost of Doing Business Reports provide a comparison of 398 U.S. cities according to a range of tax types and other business cost categories. The tax types covered by these reports are Business, Utility, Sales, Property, Transient Occupancy, Parking, and Property Transfer tax. Other business cost variables include economic incentives, main transportation amenities, development impact/exaction fees, and special zones. In addition these reports provide a combined measure of all these costs as a composite cost of doing business index for each city.

Because San Francisco is the only city with a payroll tax, while other cities have a gross receipts, employee, or no business tax, it is difficult to generalize about tax cost differences. To provide an example, however, the business tax was calculated for several Bay Area cities, based on an average San Francisco firm in the Internet Service Provider business. The Census Bureau's 2002 Economic Census provides average gross receipts and average payroll for firms in this industry in different Bay Area counties. The results are indicated in Figure 41.

Figure 41. Typical Business Tax Paid In Different Bay Area Cities



Source: ICF International based on 2002 Economic Census; Kosmont-Rose Institute, Cost of Doing Business

In this example, San Francisco's business taxes are significantly higher than they are in any of the other Bay Area locations, and this pattern was observed for each of the other industries examined. One notable finding of this analysis is that the gap between San Francisco and other locations becomes larger for larger firms. Thus, a small design firm with 5 employees may only pay a few thousand dollars more in San Francisco; a back office administrative services firm with 250 employees could pay hundreds of thousands of additional dollars annually. Thus, the tax differences observed here at least comport with the finding in Chapter 3 that San Francisco is more competitive with smaller knowledge-sector firms than with larger companies. Unfortunately, it is precisely these larger firms that offer a more balanced set of job opportunities.

While the tax differences shown in Figure 41 seem stark, one cannot definitively conclude that they are the only reasons why San Francisco is less competitive for larger firms. First, particularly for businesses requiring rapid face-to-face contact, the spatial concentration of employment in downtown San Francisco may raise productivity to such an extent that higher costs are worth it. Second, since San Francisco offers advantages from the standpoint of transit and other amenities those advantages can serve to offset higher costs. Finally, it is not easy to determine how sensitive the location of firms is to tax or total cost differences. The overall issue

of regional tax competitiveness requires detailed study as part of any future modification of tax policy. If higher business taxes really are a basic cause of San Francisco's slower job growth, then the City could find itself in a position where lowering taxes might raise employment to such an extent that the change is fiscally positive.

Business Barriers Related to the Cost of Doing Business

The cost of doing business in San Francisco, and the cumbersome nature of business regulation in the City, were the most significant frequently cited business barriers in the Survey of Business Barriers, and in focus groups.

This perception stems not only from high taxes and fees, but from expenses, hassles, and uncertainties related to the regulatory and permitting process. Uncertainty regarding regulation, in particular, was pointed to as a greater barrier than the expense itself, as some companies were unwilling to make commitments to a San Francisco location without a clear sense of what future expenses and regulations would look like.

Seventy-eight percent of responding businesses indicated that city taxes and fees were "very important" or "important" factors in their businesses decision regarding expansion in San Francisco. When asked about specific taxes and fees, 94% highlighted the payroll tax, 85% indicated health care mandates, and 83% indicated sick leave mandates as "very important" or "important" factors affecting their decision.

Between 75% and 90% of firms in the four strategic priorities indicated that space costs were a "very important" or "important" factor in their business's expansion decisions. Between 50% (large knowledge) and 80% (experience sector) of businesses in the strategic priorities indicated, that the City's permitting process itself was a barrier to expansion.

The ease and prevalence of entrepreneurship is an important foundation of a city's ability to support small business and overall economic development. The Survey of Business Barriers also asked participants to characterize their experience in starting a business, or why they have decided not to start a business.

Table 4 below indicates the responses from San Francisco business owners when asked to identify the significance of different potential business barriers. Entrepreneurs across all sectors identified local business regulations as a high barrier[21] to beginning operations in San Francisco. The permitting process and associated costs are considered a large barrier by experience sector establishments, and a medium barrier among physical infrastructure businesses. However, permitting costs and process are reported to be only a small business start up barrier for knowledge businesses. The availability of space in San Francisco was reported a medium

[21] High business barriers were identified as very significant or significant by more than 65 percent of entrepreneurs when asked how significant the barrier was to the starting their business in San Francisco. Medium business barriers were identified as very significant or significant by between 48 percent and 65 percent of entrepreneurs when asked how significant the barrier was to the starting their business in San Francisco. Low business barriers were identified as very significant or significant by fewer than 48 percent of entrepreneurs when asked how significant the barrier was to the starting their business in San Francisco.

business start up barrier by all sectors, except, again, for small knowledge firms which considered it a small barrier. Across the board, business owners do not view access to start up capital, marketing challenges, or the need for technical assistance to be significant business start up barriers.

Table 4. Significance of Business Barriers in Starting A Business

	All sectors	Physical infrastructure	Large knowledge	Small knowledge	Experience
Local Business Regulations	High	High	High	Medium	High
Permitting And Cost Process	Medium	Medium	Low	Low	High
Finding Space	Medium	Medium	Medium	Low	Medium
Start-Up Financing	Low	Low	Low	Low	Medium
Marketing	Low	Low	Low	Medium	Low
Technical Assistance	Low	Low	Low	Low	Low

Source: San Francisco Economic Strategy Survey of Business Barriers

Owners, managers and key employees were asked what factors might discourage them from starting a business in San Francisco. Within the survey responses, San Francisco's business climate was cited as the most significant factor. Second however, was the fact that key employees and managers were satisfied with their current job situation. Reluctance to incur the financial risk and stress associated with entrepreneurship were also cited. Interestingly enough, lack of financial resources or know-how was not a reported barrier.

Quality of Life

The concept of *quality of life* attempts to capture attributes that make a place a good social and physical environment for the people that live and work in it. Of course, a high quality of life is one of the primary goals of economic development and of urban policy more generally. It has a special role, however, as a foundation of economic development.

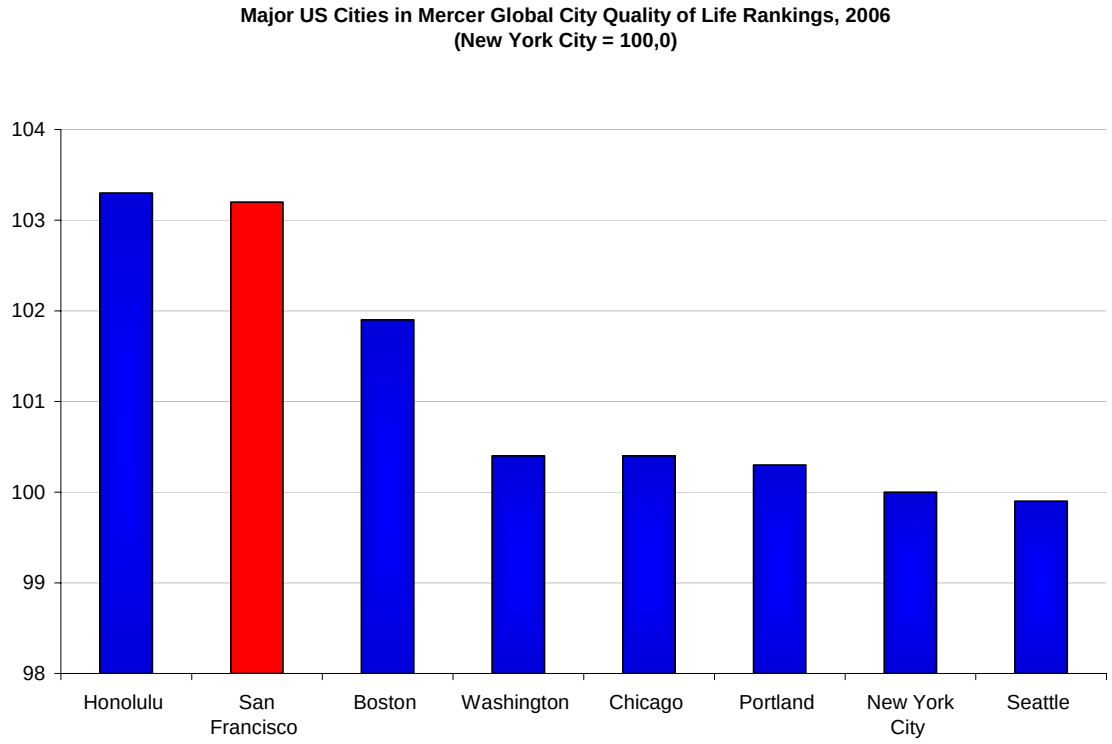
Because San Francisco's economy depends upon the knowledge and experience sectors, quality of life is especially vital. The city must attract and retain a highly skilled workforce—one which increasingly could work in any location in the nation or even the world. The experience of a high quality of life for residents is also fundamentally connected to the quality of the experience San Francisco offer to visitors. There is significant overlap, in other words, between the services and infrastructure that provides a high quality experience, and a high quality of life.

In this section, various elements of the quality of life that relate to economic development are analyzed. This section is based upon research conducted by UC Berkeley graduate students Sylvia Nam and Marilyn Yu-Li, as part of the economic development studio in the Department of City and Regional Planning in the Spring of 2006.

In terms of its overall quality of life, San Francisco appears to do quite well at providing the amenities people desire within their surroundings. The international consulting firm Mercer conducts an annual *World-wide Quality of Living Survey*, covering more than 350 cities. Cities are evaluated along 39 criteria, including political, social, economic, and environmental factors, personal safety and health, education, transport, and other public services. Mercer provides New York as the base city, with an index score of 100.

San Francisco ranks 28th among global cities, and second among US cities, only slightly behind Honolulu, and far ahead of such major headquarter cities as New York, Boston, Chicago, Seattle, and Washington.

Figure 42. Top US Cities in Quality of Life Rankings

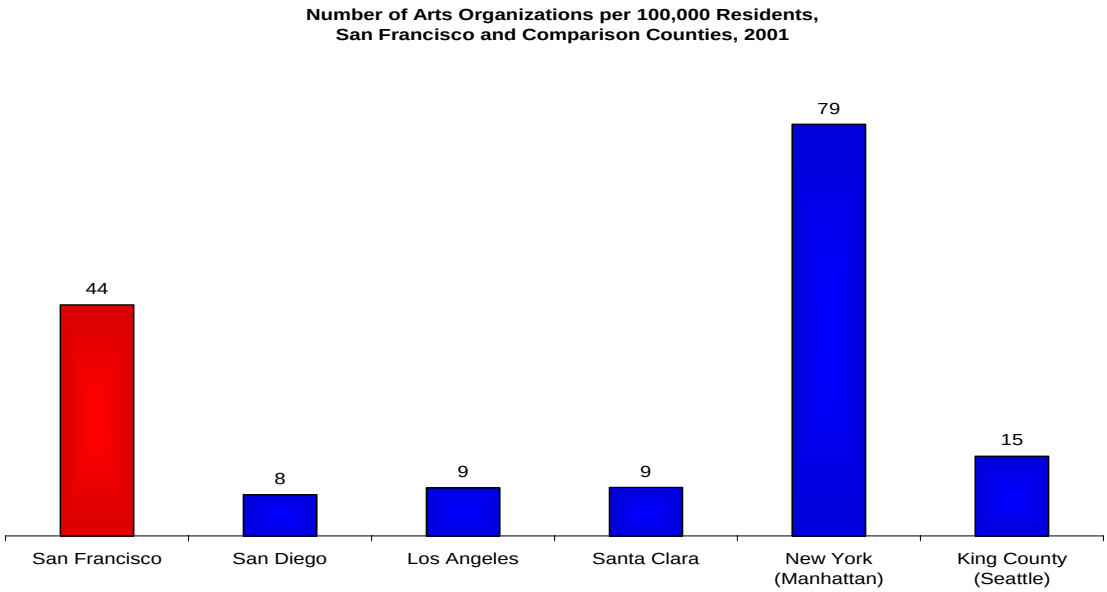


Source: Mercer Human Resource Consulting

Arts and Entertainment

The vital arts community and the entertainment and cultural activities that are linked to it are a major reason why residents and visitors value the San Francisco experience. Although it is difficult to compare cities relative competency in arts and entertainment, information about the number of arts and entertainment venues provides some indication. In terms of the number of organizations classifying themselves within the arts in 2001, Figure 43 shows that San Francisco performs very well. San Francisco has 44 arts organizations for every 10,000 residents, second only to Manhattan, which is perhaps the arts center of the world. San Francisco further led Seattle, the third ranking city by almost 200% and all others by more than 600%.

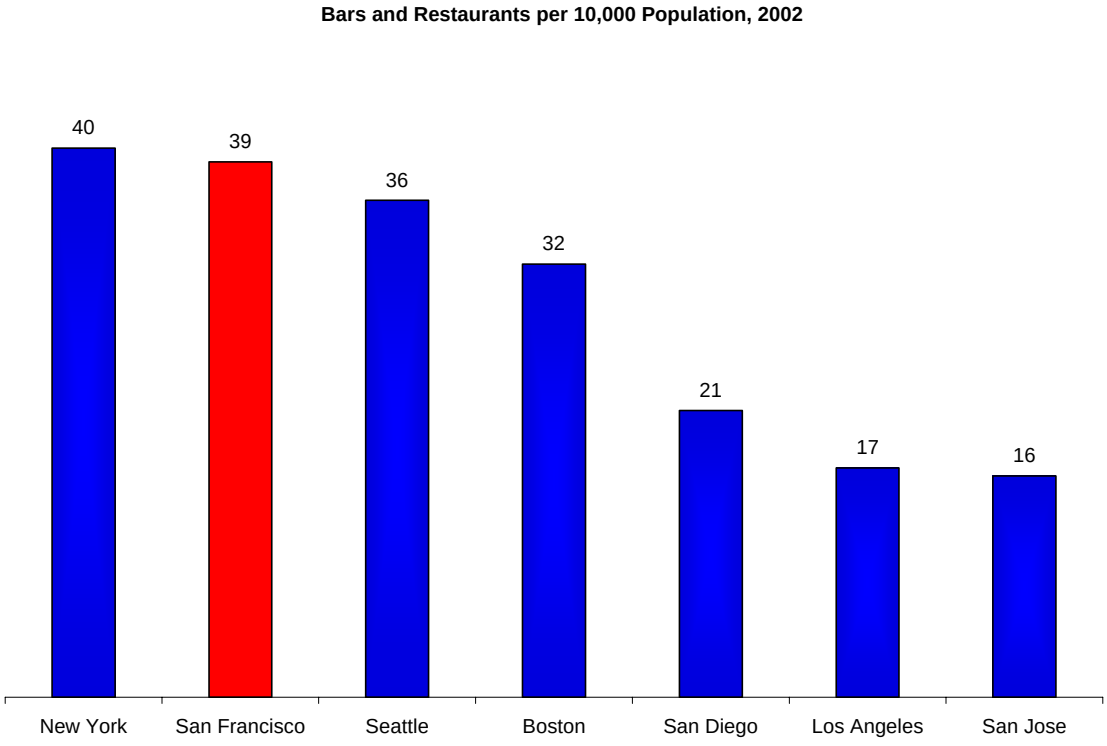
Figure 43. Number of Arts Organizations Across Comparison Peer Counties



Source:
The Urban Institute, National Center for Charitable Statistics

Another currently popular measure of the quality of life of cities, which is related to arts and entertainment, is the array of entertainment and dining options. One measure of this is the number of bars and restaurants, adjusted for population. San Francisco ranks with Manhattan with the highest concentration. In both cases, the high concentration is driven by a vital urban scene and a large visitor industry, which of course are related to one another.

Figure 44. Comparison of Drinking and Dining Entertainment Options Across Peer Cities



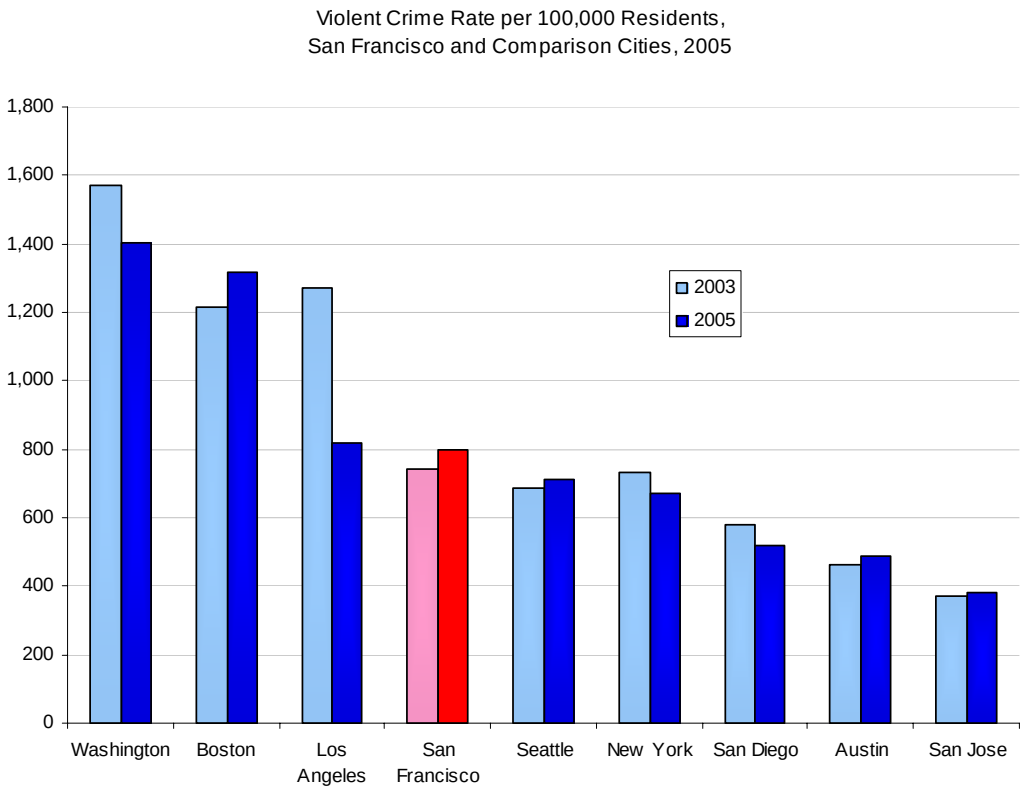
Source: US Census Bureau, Economic Census 2002, County Population Estimates

Crime and Safety

The perception of safety in an area significantly affects quality of life, and a city's crime rate is often viewed as a kind of "leading indicator" of the trend for livability in cities. If a city or an area of a city is considered unsafe, it can disrupt the economic underpinnings of that area. Consumers unwilling to risk harm reduce their participation in street activity, distressing local business and promoting disinvestment. As business suffers, a negative feedback cycle can result in which maintenance of the built environment and street is reduced, perceptions of safety further decrease, and businesses are further impacted. Because of San Francisco's large and vital experience sector, and its large number of small business, the perception of security is even more essential to the City's economy.

In general, its relatively low violent crime rate has traditionally been a positive factor for San Francisco's quality of life. However, many other large cities, such as New York and Los Angeles, have dramatically lowered their crime rate in recent years, as Figure 45 shows. San Francisco has a lower rate than Washington, Boston, and Los Angeles, but lags behind New York, San Diego, Seattle, Austin, and San Jose.

Figure 45. Trends in Safety Across Peer Cities



Source: Federal Bureau of Investigation

Business Barriers Related to Quality of Life

Quality of life-related barriers to business expansion were prominently noted in the Barriers Survey, with 75% of all responding businesses indicating that the quality of their surrounding business area was a "very important" or "important" factor in their expansion decisions. In the focus groups, the experience sector businesses most focused on quality of life factors, particularly the quality of the city's parks and open spaces as they related to the visitor industry, the level of coordination and marketing relating to the arts, and the problem of homelessness.

Infrastructure

Without well-planned, sufficient, and appropriate infrastructure, all other activities become prohibitively difficult, including economic activities. Different businesses place differing degrees of importance on various aspects of infrastructure, and many base their location decisions on a city's ability to meet its infrastructure needs. In a knowledge and experience economy, no flow is more important than the flow of people.

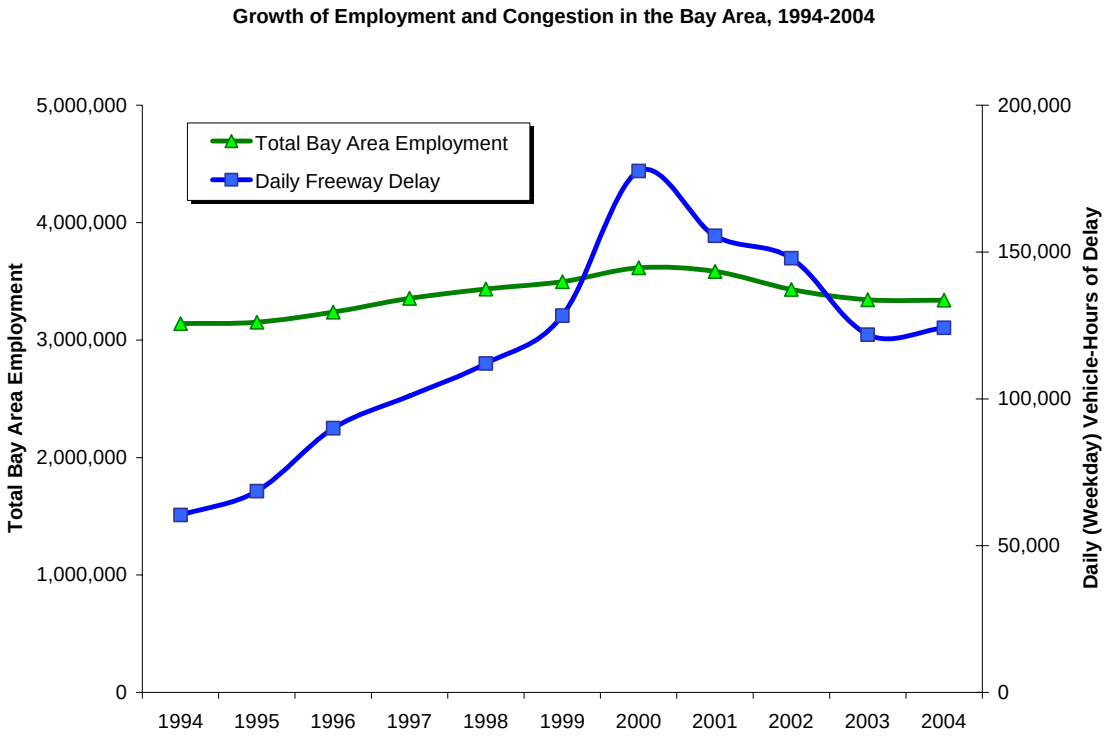
San Francisco's, and the Bay Area's, road and transit system is vital in this context. For this reason, this section considers the suitability of the region's road, transit, and commercial and industrial real estate infrastructure in the context of projected regional growth.

Growth, Congestion, and San Francisco's Regional Competitiveness

Downtown San Francisco's capacity to support more workers, through enhanced transit investments that expand its regional accessibility, may be critical to the region's ability to grow in a sustainable way. The capacity of a regional transportation system to absorb new population and employment growth determines the extent to which new growth—which history shows is difficult to stem at the regional level—will be associated with rising congestion, and where it will be experienced. San Francisco is unique in its density and existing transit infrastructure and may therefore possess a competitive edge compared to other Bay Area cities.

In the Bay Area, freeways were strained by the impacts of growth, even by the early 1990s. The 15% growth in total employment between 1994 and 2000 led to a 200% increase in congestion. Figure 46 below illustrates this employment-congestion relationship during the 1990s.

Figure 46. Trend in Employment and Freeway Congestion in the Bay Area

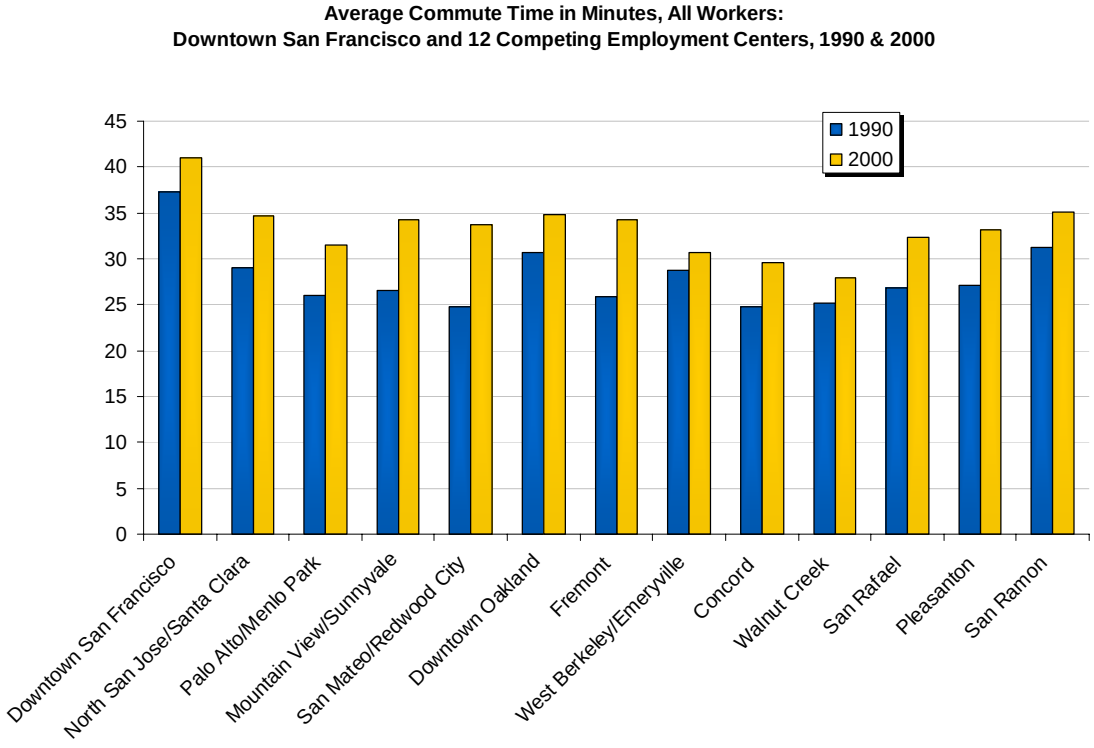


Sources: Bureau of Labor Statistics, Local Area Unemployment Statistics; MTC, State of the System 2005; CalTrans District 4, Year 2001 Bay Area Freeway Congestion Data

Employment centers grow by attracting a large pool of labor from across the region. Historically, one of the advantages to suburban employment centers was their ability to attract a suburbanized labor pool, with a short and easy car-based commute. Even as late as 2000, commuters to downtown San Francisco faced the longest average commute in the region.

As congestion rose throughout the region, however, it began to erode the suburbs' traditional advantage on this score. Figure 47 below illustrates how rising congestion led to rising commute times to every regional employment center during the 1990s. This evidence is indicative of the fact that the suburban advantage in the Bay Area is eroding.

Figure 47. Comparison of Average Commute Times Across Bay Area Employment Centers



Sources: U.S. Census Bureau, Census Transportation Planning Package, 1990 and 2000.
Note: Employment centers defined geographically by ICF Consulting using TAZs in 1990, Tracts in 2000. See Methodology Note [6]

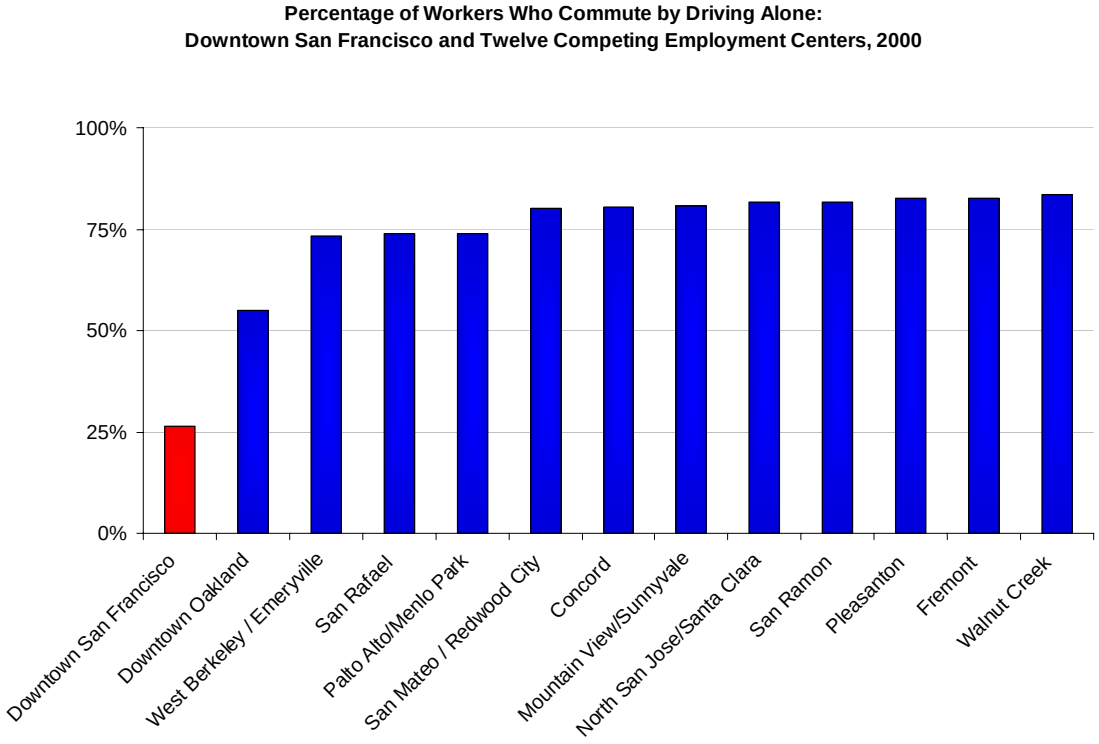
Only the West Berkeley/ Emeryville area had a smaller percentage increase in average commute time than San Francisco during the 1990s. Conversely, all of the other regional employment centers suffered featured significantly higher percentage increases in commute time. This directly weakens their ability to attract workers, and their competitiveness, vis à vis San Francisco. How much more growth will these centers be able to sustain before they are no longer able to offer suburban commuters a short and easy commute? The answer may create new economic opportunity for San Francisco, particularly because the region expects more job growth and limited highway investment.

The MTC's Transportation 2030 plan released in February 2005 anticipates 1.7 million new jobs coming to the Bay Area between 2000 and 2030. But according to the plan, "during the next two decades, the Bay Area is expected to spend less on new highway projects than any other large urban area in the country (only 4 percent of total spending)." Growth coupled with a lack of

investment will likely lead to an overburdened highway system, increased congestion and longer commute times. Transit will become increasingly important to the region's economic future, as this happens. But what will the spatial effects of an increased dependence on transit be?

As Figure 48 illustrates, every suburban center depends on employees driving to work alone. With the exception of downtown San Francisco (and to some extent downtown Oakland), every other employment center relies on roughly 75% of their workers driving to work alone. Indeed, with the exception of the two higher-density downtowns in San Francisco and Oakland, other employment centers are difficult to serve effectively with transit, because of their low-density character. It is likely that their limited suitability for transit is a major reason for their rapidly-expanding commute times, as growth created congestion, which increased commute time, and ultimately weakened their ability to draw workers in from around the region.

Figure 48. Percentage of Workers Who Commute by Driving Alone



Sources: U.S. Census Bureau, Census Transportation Planning Package, 1990 and 2000.
Note: Employment centers defined geographically by ICF Consulting using TAZs in 1990, Tracts in 2000
See Methodology Note [6]

While Silicon Valley continue to have a considerably higher concentration of high technology related-employment, San Francisco is increasingly home to many of these high-tech workers. That fact, coupled with the unique employment density and transit advantage of San Francisco has the potential to affect the City's role as the region grows. The capacity for suburban centers to add auto-based jobs will be limited by highway congestion that makes the commute

undesirable, relative to transit. The capacity to add transit-based jobs to suburban locations may be impractical due to their traditionally low employment densities.

It is therefore reasonable to believe that the competitive advantage that the Bay Area's suburban centers have experienced for the last three decades may weaken or reverse in the future, giving San Francisco a new source of competitiveness and subsequently a greater economic role in the Bay Area. The density of employment in downtown San Francisco coupled with the transit accessibility is a regional asset because it allows far more workers to access their jobs via transit than other centers. If other trends develop, like continued high gasoline prices, expanded federal and state investment in transportation (particularly transit) infrastructure, and regulation of greenhouse gas emissions, these would tend to further encourage this reversal.

From the point of view of San Francisco's economy, such a reversal would mean a new potential—*but not a guarantee*—for a more proportionate share of regional employment than the City has received over the past three decades. A city which is currently adding primarily very high- and very low-wage employment would be more competitive for a broader range of jobs, supporting a broader of range of worker skills. Paradoxically, San Francisco may be able to offer a broader set of job opportunities to City residents by ensuring it is accessible to a broader regional workforce.

From the region's point of view, there is clearly a smart growth case to be made for increasing the rate of job growth in San Francisco. If the region is to rely on transit to accommodate 1.7 million new jobs in a thirty-year period, then the options are investing in regional transit capacity into San Francisco, or promoting the redevelopment of suburban centers to increase their employment density and viability as transit destinations. Doubtlessly both options will need to be pursued. However, in an economic context of rising energy prices, and increasing awareness of the environmental costs of greenhouse gases, long-discussed regional planning concepts like centrality may take on a new importance.

Business Barriers Related to Infrastructure

Transit and parking loomed large as business barriers in both the Barriers Survey and the business focus groups. Seventy percent of businesses said the availability and cost of customer parking, 59% said parking for employees, and 57% said the availability and level of service of transit, were "very important" or "important" business expansion factors. Focus groups similarly emphasized the reliability of transit service within San Francisco, and its impact on commuting times.

The other basic infrastructure issue related zoning and the supply of adequate space without nearby conflicting land-uses, which was discussed at length in the session with physical infrastructure businesses.

Technology and Innovation

Innovation is critical to success in the contemporary knowledge economies. Firms and regions increasingly depend upon research-generating organizations, such as universities and research laboratories, to provide the breakthroughs in basic science that can pave the way to new industry

development. UC Berkeley students Emilio Martinez de Velasco and Katherine Daniel conducted a study of technology and innovation foundations in the San Francisco and the Bay Area in the Spring of 2006, and this section draws upon his work.

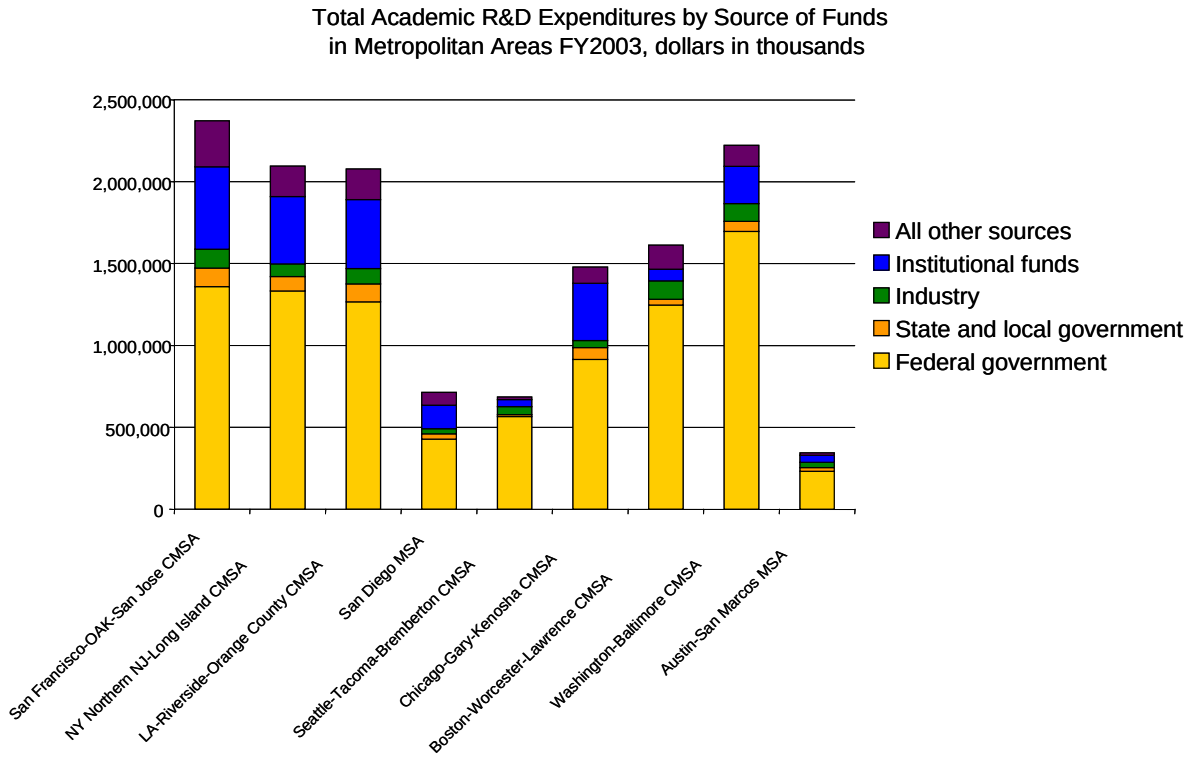
Research & Development Resources

The level of research and development investment in a region is a good predictor of its economy's ability to incubate and grow new technology firms in emerging industries. Universities, national laboratories, and other public and private research organizations have become increasingly important part of the *regional innovation system*—the network of researchers, entrepreneurs, venture capitalists, and talented workers who translate new technologies into jobs and businesses in high tech industries.

The term regional innovation system emphasizes that San Francisco is a part of, and draws from, the resources of the Bay Area, the world's most dynamic high technology region. Graduate students involved in research at Berkeley may move to San Francisco upon receiving their degree and continue with related research in the City. Similarly, a group of employees from a technology firm in San Jose may create a spin off in San Francisco. Because the value associated with technology is embedded in the skills and knowledge of people, who live and work within a metropolitan labor market, the metropolitan area is the right scale for examining strengths and weaknesses.

Because of research universities such as UCSF, Stanford, and UC Berkeley, the Bay Area receives more academic Research and Development investment than any other metropolitan area in the United States. The Bay Area trails only Washington in receiving federally-funded R&D, and ranks with Boston as the leaders in private sector R&D, which is usually invested by technology firms based in the region. The Bay area also leads in Institutional Funds, which includes venture capital.

Figure 49. Comparison of Total R&D Expenditures by Source of Funds Across Peer Regions



Source: National Science Foundation

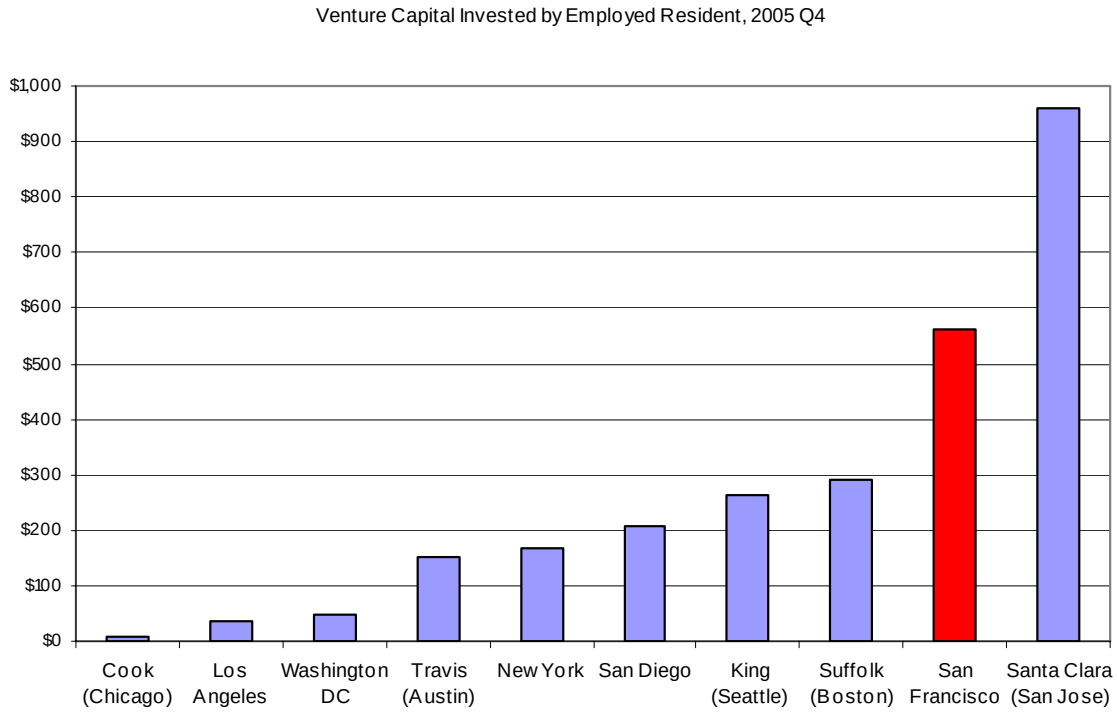
Venture Capital

Another indicator of the strength of the regional innovation system is its venture capital resources. Local sources of venture capital increase the likelihood that local companies with promising technology will get the funding they need to mature it and expand to a profitable scale.

As Figure 50 indicates, San Francisco is second only to Santa Clara in per capita venture capital investment in the fourth quarter of 2005[22], significantly higher than other technology cities such as Austin, Seattle, and Boston. It is important to stress that this is venture capital invested in actual companies based in San Francisco—*not* funds invested by venture capitalists located in the City. As the Silicon Valley technology-based economy spreads north from the South Bay, San Francisco has emerged as a viable location for many technology start-ups.

[22] Among the comparison cities.

Figure 50. Venture Capital Investment per Capita



Source: PWC, Thompson Venture, 2005

The wealth of venture capital in the Bay Area will continue to strengthen San Francisco's technology economy, and may potentially broaden it as well. The six industries and emerging technologies currently receiving the greatest amount of venture capital include software, biotechnology & nanotechnology, telecommunications and wireless services, semiconductors and wireless devices, medical devices, and alternative energy and environmental technologies. In *each* of these emerging industries, the Bay Area receives more venture capital investment than any other region in the U.S.—typically between 20-40% of *all* venture capital invested in the industry.

While at present, San Francisco possesses a relatively narrow range of knowledge sector companies, the City has several technology foundations that can broaden and diversify the range of emerging industries located here. These include, above all, the University of California at San Francisco, one of the world's leading centers of biomedical research, which has already generated over seventy biotechnology firms in the region.

The City's array of public private research and educational institutions in digital media, arts, and culture directly contribute talent and entrepreneurship for these emerging clusters, as well as contributing to a cultural climate that fosters creativity and attracts young workers.

In clean technology and alternative energy, the presence of many “early adopting” consumers and businesses can be a source of advantage to a wide array of research and manufacturing companies.

The degree to which academic and research institutions make up the amount of R&D expenditures highlight the importance of technology commercialization to the future of the region's economy. Universities, governments, and the private sector are creating new ways to link commercially valuable research to the marketplace, in ways that create economic development, while supporting the traditional research mission of institutions.

General Conclusions

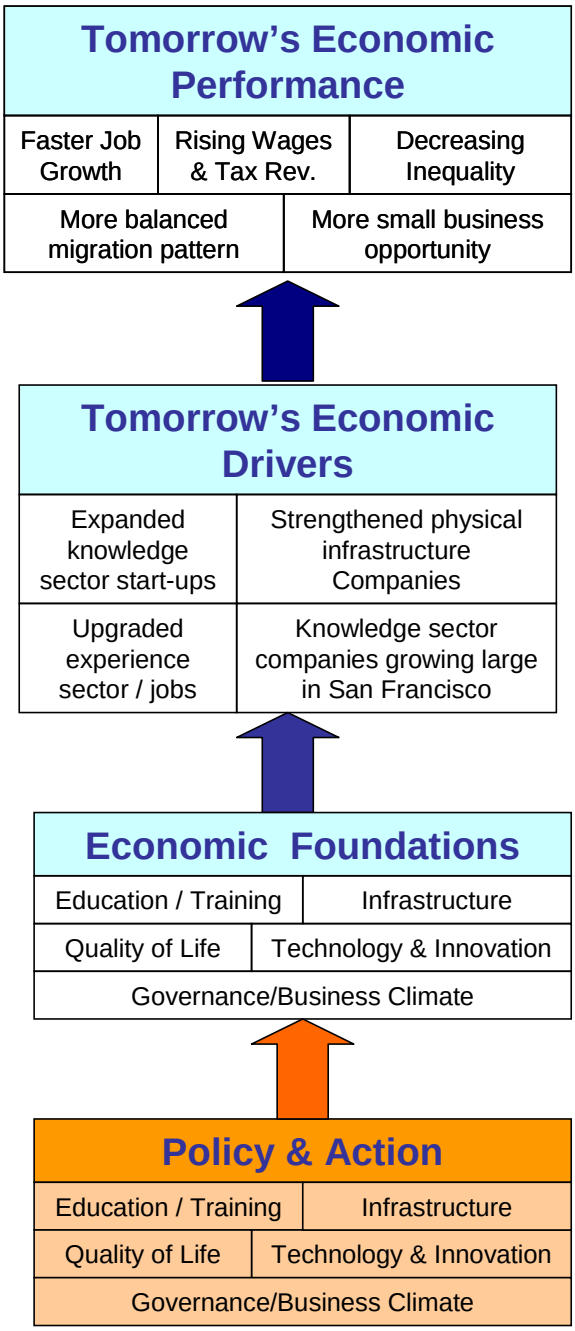
The economic foundations of San Francisco and the Bay Area offer an impressive array of strengths: one of the most educated work forces in the country, a widely-envied quality of life, and the nation's largest concentrated pool of academic R&D and venture capital. These foundations help explain why the City and the region have had such success in the knowledge and experience sectors, which are also the major drivers of economic growth in the global economy.

At the same time, there are many deficiencies in San Francisco's economic foundations that will need to be remedied in order to achieve the desired changes in its economic drivers. The City must do a better job devising workforce programs that can link its residents to the quality job opportunities created by economic growth. The City’s business tax system, and overall system of business regulation, discourages business growth and may explain the its slow rate of employment growth, and the disappearance of middle-income jobs in particular. San Francisco’s much-envied quality of life—and much of its visitor income—depends on clean, safe, and attractive parks, neighborhood commercial areas, and open spaces. Decades of investment in local and regional transit infrastructure has given San Francisco a potential competitive advantage in a future of rising freeway congestion and rising gasoline prices, but the City must make expanding transit capacity and improving performance a high priority. And San Francisco will only fully reap the benefits of the expansion of the region’s technology economy if it does a better job supporting high tech entrepreneurship in the City. The concluding chapter of this report details policies and actions that can effect these changes.

Chapter 5: Policy Goals and Recommended Actions

The previous chapter reviewed San Francisco's economic foundations, in the context of the strategic priorities of the economic development plan that that were introduced in Chapter 3. Through research and outreach with the business community, shortcomings were identified across the five economic foundation categories: education and training, governance and business climate, quality of life, infrastructure, and technology and innovation.

Figure 51. Sustainable Prosperity Strategy Framework: Focus on Policy and Action



Chapter 3 described how achieving four priorities—expanding knowledge sector start-ups, retaining large knowledge sector companies, upgrading the experience sector, and strengthening the physical infrastructure—will help advance the general goals of increasing economic opportunity, providing quality jobs for all residents, and stabilizing the city's tax base.

Specifically, expanding knowledge sector start-ups in San Francisco is an important target, as the Silicon Valley technology economy spreads across the Bay Area, and the City searches for a new generation of middle-income jobs. Success will require a greater emphasis on commercializing research to generate businesses and jobs, continuing to improve the quality of life to attract talented people to San Francisco, making the most of our telecommunications infrastructure, and renewed efforts to support entrepreneurship and small businesses in the City. It also requires building the workforce programs—in emerging industries such as biotechnology, digital media, and clean technology—to prepare San Francisco residents for these new jobs. In other words, for this strategic priority, action is needed across all five of the economic foundations discussed in the previous chapter.

Retaining growing knowledge sector firms in San Francisco will require making the City as competitive as possible with alternative locations in the Bay Area. San Francisco's business taxes are very high by Bay Area standards, and its housing costs contribute to high labor costs. Both of these factors encourage large businesses, in particular, to expand outside of the City. However, its high density downtown and ample regional transit make San Francisco accessible to workers across the region, which may counteract some disadvantages in the future. Thus infrastructure, governance/business climate, and workforce are the most important economic foundations relating to this priority.

Upgrading the experience sector means raising the average revenue San Francisco earns per visitor-day, by continuing to improve the quality and value of the experience the City provides to visitors, be they business, leisure, or convention travelers. As the San Francisco Convention and Visitor's Bureau's business plan states, the mission should be to make San Francisco the most compelling destination in the world[23]. From a public sector perspective, this is fundamentally about the economic foundations of quality of life and workforce. In the past several years the City has made or facilitated several investments that have transformed San Francisco's tourism product, from the new Yerba Buena Center for the Arts, and the Museum of Modern Art, to the later renovations of the DeYoung and Asian Art museums, to the Moscone West convention center. New projects, such as the Old Mint and the Academy of Sciences, will continue to develop San Francisco's tourism product and offer compelling experiences to visitors. New infrastructure will be a critical part of this, as will continuing to develop San Francisco as a center for the arts and creativity generally. From a workforce perspective, an upgraded experience sector hinges on a workforce able to offer high-quality service. This requires specialized training and will, in time, offer a broader range of quality jobs in the industry.

Strengthening the physical infrastructure sector of the economy will involve creating incentives and programs for companies in this sector to modernize their plant, equipment, and skills to meet

[23] San Francisco Convention and Visitor's Bureau. *2007/08 Business Plan*.

the emerging needs of the knowledge and experience sector, as well as the entire local economy. These include stable industrial areas—an infrastructure foundation, as well as specialized workforce programs and business financing and other assistance programs that are tailored to the unique needs of this sector.

Table 5 below summarizes the economic foundations that are critical to achieving each of these four strategic priorities. The broad policies and specific recommendations detailed in this chapter will immediately begin to advance the priorities. Wherever possible in the chapter, specific city departments or other organizations are identified as the most appropriate to lead the particular policy.

Table 5. Critical Economic Foundations for Achieving Strategic Priorities

	Workforce	Governance/Business Climate	Quality of Life	Infrastructure	Technology
Expand Knowledge Sector Start-Ups					
Retain Large Knowledge Sector Companies					
Upgrade the Experience Sector					
Strengthen the Physical Infrastructure Sector					

The policy goals and recommended actions in this chapter are organized as follows:

- Education and Training
- Governance/Business Climate
- Quality of Life Goals and Recommendations
- Infrastructure Goals and Recommendations
- Technology and Innovation Recommendations

Education and Training

As Chapter 4 demonstrated, San Francisco and the Bay Area has an extraordinary pool of highly educated workers, which forms the basis of the City's competitiveness in the knowledge sector. Significant work remains necessary, however, to better prepare many San Francisco residents, particularly youth, and those with multiple barriers to employment, for sustainable positions in these and other industries. In light of this objective, the strategy proposes the following goals for improving education and job training opportunities, that will better link our residents to the emerging opportunities of our knowledge and experience economy:

- Create a Coordinated Workforce Development Strategy for the City Around the Economic Development Priorities

- Better Prepare San Francisco's Youth for Careers
- Close the Digital Divide

Create a Coordinated Workforce Development Strategy for the City Around the Economic Development Priorities

In 2004, the City commissioned a report that recognized the need to prepare San Francisco residents for emerging industries, and outlined strategies to strengthen workforce development infrastructure and outcomes based on best practices in other communities. One of the chief recommendations was to more closely align the City's economic and workforce development policies and goals, via the merging of economic development and workforce development policy in one office. The result was the Department of Economic and Workforce Development (MOEWD).

MOEWD piloted this sector-based strategy with the creation of CityBuild, a program dedicated to training and placing low-income San Francisco residents in construction careers. Since inception CityBuild has placed 497 San Francisco residents on public and private construction jobs. In 2006 CityBuild began training workers through the CityBuild Academy and 142 graduates have been placed in union apprentice jobs at an average starting wage of $19.65 per hour. MOEWD is now poised to develop additional sector initiatives modeled on CityBuild.

MOEWD has begun the process of coordinating all of the City's workforce development programs, and consolidating authority for the development of a comprehensive and well-performing system under the control of MOEWD. For example, MOEWD recently phased out the Private Industry Council and brought the federal workforce dollars previously allocated by that agency under direct control of the City.

Three further actions are now necessary to build upon these efforts:

First, the City should now further consolidate authority over workforce policy within MOEWD, in order to improve accountability and outcomes. This includes consolidating workforce resources within MOEWD, charging MOEWD with the creation of City-wide workforce funding allocation plan, and giving MOEWD general oversight over all workforce program plans, budgets, and performance outcomes.

Second, MOEWD should immediately revamp the federally mandated workforce investment board (WIB), adding to it CEO-level members from major employers across the local business community, including the priority industry sectors. Through the input of these industry leaders, the WIB should formulate a customer-driven workforce training system that focuses on the dual needs of employers and employees, and strategically disseminates training dollars to employment and training providers that provide targeted and effective services and programs.

Third, MOEWD and the WIB should create a City-wide strategic workforce plan that identifies the job training needs of San Francisco residents, and creates multiple access points and streamlined pathways to assist these job-seekers in moving toward self-sufficiency. This plan should be built upon the priorities of this economic strategy, as reflected in the priority workforce industries detailed in Appendix E, and incorporate the variety of supportive services

necessary for San Francisco residents to gain employment and advance in their careers, including case management and employment counseling, childcare and transportation assistance, asset and wealth building tools, literacy development, vocational English as a second language, and other features as determined through on-going analysis of customer requirements.

Better Prepare San Francisco's Youth for Careers

MOEWD should collaborate with the San Francisco Unified School District (SFUSD) to establish formal school-to-work and school-to-school-to-work pathways to jobs in priority sectors, including building awareness of in-demand and priority occupations. Particular emphasis and effort should be placed career development for students who are not college-bound. MOEWD should promote better collabration between SFUSD and major employers, by involving employers in mentoring, job shadowing, career awareness efforts, internships and summer youth employment opportunities. MOEWD should work with the Department of Children, Youth, and their Families (DCYF) to complete an inventory of available youth employment programs, determine which programs are the most relevant to the priority industry sectors, and market those programs that are a best fit for businesses in the sectors.

Close the Digital Divide

San Francisco should work to close its digital divide by fully implementing its Digital Inclusion Initiative. The Digital Inclusion Initiative aims to support all San Franciscans in acquiring the technology and skills needed to use the Internet to access jobs, education, healthcare, government services and other information services. The City is currently working with private partners to provide all San Franciscan's with free or affordable Internet access, which is a key component of the Inclusion Initiative.

To date the Department of Telecommunications and Information Services has worked through a Digital Inclusion Task Force to meet with a number of community leaders and representatives of community-based organizations, nonprofits, philanthropies, small businesses, city government and innovators to solicit input on the scope and goals of the Initiative.

However, in order to have a meaningful impact the Initiative must also develop programs to meet its other stated goals. For example, the Initiative seeks to increase computer ownership and to provide culturally competent computer training services to low income, limited-English speakers, disabled and senior populations. This is laudable goal but no programs or funding is yet in place.

Success in closing the digital divide is critical to growing our economy. Increasing Internet access and competence among disadvantaged residents will significantly expand opportunities for those San Franciscans to participate in the growing knowledge economy.

Governance/Business Climate

The high cost of doing business in San Francisco, and perceptions of an unfriendly business climate are the two most-cited barriers to business growth and economic development in the City. San Francisco and the Bay Area have always been high-cost places to do business, and this

is partly a function of economic success. People, companies, and investment are all attracted to the area, and this tends to raise prices. Nevertheless, if San Francisco's business climate is unfavorable relative to other options within the Bay Area, businesses may benefit by moving out of the City, without giving up any of the benefits garnered from the city's strong economic foundations. This is particularly true for growing large and growing businesses, who make real estate decisions more frequently, and have greater freedom of movement than smaller firms. If the City is to retain large businesses as they grow—and benefit from the greater range of jobs that large firms offer—then it must work to offer a competitive business climate—relative to Bay Area standards at the very least.

Six policy recommendations will begin to move San Francisco's business climate in the right direction:

- Create a Local Tax Policy That Promotes the City's Economic Development Priorities
- Increase Business Outreach and Private Sector Partnerships
- Streamline Business Interaction with the City Government
- Evaluate and Refocus the City's Assistance Programs for Businesses
- Evaluate Economic Impact of City Polices on Business
- Use City Purchasing and Regulation To Promote Competitiveness in Priority Sectors

Create a Local Tax Policy That Promotes the City's Economic Development Priorities

The City should engage in a comprehensive review of its local tax structure. San Francisco is the only city in California to impose a tax on payroll, and businesses have consistently cited this tax as a disincentive to growth. The payroll tax is particularly onerous to businesses that are not making a profit, as is the case with many start-up knowledge based enterprises. Not only is the type of tax perceived as a barrier, but, as Chapter 4 indicated, the average amount of business tax is significantly higher in San Francisco than it is in nearby jurisdictions, and that gap increases with the size of the firm. A business tax that makes San Francisco significantly more expensive than alternative locations in the Bay Area is an obstacle to one of the main priorities of this plan: retaining San Francisco businesses in the City as they grow.

The City should convene a working group comprised of the Mayor, the Controller, the President of the Board of Supervisors and the Treasurer, in order to set goals and revenue targets for the local business tax and to consider alternatives to the current system. When evaluating alternatives the working group should determine whether or not it wants a new structure to be revenue-neutral.

More fundamentally, current tax policy does not take into account the City's relative cost competitiveness within the Bay Area. Businesses can readily move among San Francisco and adjacent counties, while still retaining many of the advantages of a San Francisco location. The working group should consider how San Francisco's overall employment base, and the business

tax revenue it generates, would change in response to changes in the tax rate relative to nearby jurisdictions.

In particular, the working group should consider the current small business exemption to the payroll tax. The current small business exemption, which exempts businesses with a payroll tax liability under $2,500 per year, has not been adjusted since 1984. Had the exemption been adjusted for inflation, it would be more than double what it is today. The working group should consider raising this exemption to reflect 2007 dollars, and to include an annual adjustment going forward, in line with the CPI-U for the Bay Area.

Increase Business Outreach and Private Sector Partnerships

The Survey of Business Barriers, whose results are detailed in Appendix J, found that many if not most businesses are unaware of the myriad of federal, state, and local financial incentives that may be available to them. These incentives include, federal renewal zone tax benefits, state enterprise zone hiring tax credits and sales tax offsets, industry specific local payroll tax exemptions, low-cost façade improvement loans, etc. MOEWD doesn't currently have a comprehensive marketing and outreach program that is able to communicate these programs to businesses. MOEWD should create an ongoing, citywide comprehensive marketing and outreach program designed to inform businesses of these programs and policies.

Secondly, MOEWD and private sector economic development organizations need to improve their coordination and expand their efforts around external business development and marketing. San Francisco is fortunate to have a strong and progressive Chamber of Commerce, which has created the privately-funded San Francisco Center for Economic Development (SFCED) to support business attraction into the City. While the SFCED has worked with an impressive number of companies for an organization of its size, San Francisco still does comparatively little marketing for a city of its size.

If the City is to begin to pro-actively shape its economic future, as this strategy envisages, then marketing and business attraction is a critical function. In many cities, economic development marketing and strategy is the work of a collaborative public-private organization, such as an Economic Development Corporation. These private, non-profit corporations have board members from the public and private sector and work to achieve widely-held economic development goals, such as those articulated in this strategy.

To be most effective, a San Francisco EDC should operate at a regional scale. SFCED and the Chamber should investigate—and the City should support—the formation of a regional EDC directed by leaders from the private sector, city, and county elected officials. The organization should also include, as directors, representatives from key economic foundations such as universities, airports, ports, transit systems, and parks and open space. In anticipation of such a regional organization, private economic development organizations in San Francisco, and the City government, should encourage other governments and economic development organizations in the region to extend the work of this strategy and similar cluster- or sector-based strategies. Such efforts have already been completed in Alameda, Marin, and Santa Clara counties, among, and can and should be coordinated to build region-wide economic strategy.

In addition, within San Francisco proper, MOEWD, the Chamber and the SFCED should work more collaboratively with ethnic Chambers of Commerce, neighborhood merchant groups and small business advocates. MOEWD should restructure its operations to ensure there is a full-time manager to work with these and other business groups to ensure the fully diversity of San Francisco businesses have access to the same information and programs.

Streamline Business Interaction with the City Government

During interviews and focus groups, businesses frequently voiced frustration with City bureaucracy. The Survey to Business Barriers found that interacting with the City is the single most difficult part of doing business in the City—even more onerous than high taxes. Almost every business owner we spoke with had a story of some issue mishandled by the City. The problems varied from having to call multiple agencies for a simple question, to getting inconsistent answers to a single question, to a lack of accountability and follow-through from city workers.

Based on this evidence, the City clearly needs a structured and expanded approach to the full range of business assistance, from handling simple queries, to linking companies to expert technical assistance. This should be handled in three main ways:

- Upgrading the City's 311 telephone system to handle initial requests from businesses
- Re-launching the City's sfbizinfo.org website to provide detailed instructions on starting and permitting a business, and
- Creating a physical "one-stop" technical assistance center for small businesses, with a particular focus on physical infrastructure businesses.

In 2007 the City launched 311 as a single portal for city services, but 311 is only as strong as the information it possesses. By all accounts, business information is provided to 311 from at least eight different departments, and that information has not been coordinated and aligned. MOEWD should take the lead on providing 311 with a coherent roadmap, by working with other departments to review all business service information including current information about business regulations, taxes and fees, permits and licenses, available city incentives, technical assistance and resources, and other programs that support businesses. MOEWD should also provide 311 with a clear way to escalate more detailed business questions to other sources of assistance. Upgraded in this way, 311 can serve as the City's "front-end" for business assistance. All of MOEWD's outreach and business marketing materials should emphasize 311 as a first source of business information, but further emphasize that significantly more information and assistance is available from other sources.

Secondly, the City should also immediately eliminate the confusing and dense “How to Start a Business” paper manual in favor of a customized business assistance website that can quickly lead prospective entrepreneurs to the relevant information. The State of California website has an excellent model that includes customized drop down menus and guides.

MOEWD should redesign and re-launch the defunct sfbizinfo.org web portal as this web-based point of entry for businesses seeking information on doing business with the city. Sfbizinfo.org was created during the Brown administration to serve as a virtual one-stop shop for business

assistance. The website was co-managed by the Treasurer and Tax Collector's Office, along with what was then the Mayor's Office of Economic Development. The website was not maintained, and by the start of the Newsom administration, the content was incomplete and outdated. The site was taken off-line in 2006. Rather than create a new portal from scratch, MOEWD should leverage the existing infrastructure and brand, and reintroduce this service. The web portal should include a clear and detailed road map for starting a business, using the State of California's business service web portal as a model. 311 customer service representatives should direct potential entrepreneurs to this website for detailed instructions.

Third, MOEWD should create a Business Assistance Center that will serve as a clearinghouse for all city-related business needs. This physical center will deal with problems and questions that cannot be resolved through 311 or the sfbizinfo.org website. Unlike many peer cities, such as New York, Chicago, and Boston, San Francisco does not have a centralized business resource center.

This "one-stop" Business Assistance Center should be a physical center and staffed by a team of highly trained case managers. Because of the importance of the physical infrastructure sector, and the complexity of the issues these companies typically face, one case manager will be specially trained in the needs of that sector. In general, the Business Assistance Center will be responsible for assessing business needs and providing targeted one-on-one assistance in the following key areas:

- Business Start-up/Expansion – case managers will assist businesses in determining the appropriate legal business structure, obtaining necessary licenses, accessing financial resources, and finding appropriate real estate.
- Permit Assistance – case managers will assist businesses in navigating the permitting process at the Departments of Building Inspections, Planning, Public Health, etc., and will trouble-shoot permit related issues and help coordinate the permit process among multiple agencies.
- Procurement – case managers will help businesses become certified to do business with the City of San Francisco and provide guidance on how to bid on government contracts.
- Compliance with Government Laws and Regulations – case managers will provide accurate and detailed information regarding complying with the myriad of local, state and federal business laws, including the Minimum Wage, Paid Sick Leave, and Health Access Program ordinances.
- Incentives and Resource Referrals – case managers will connect businesses to City services and programs, merchant associations, neighborhood economic development organizations, trade organizations, and other nonprofit and private sector service providers as appropriate.

Case managers should track all business assistance requests using 311's CRM application to ensure timely resolution. Ideally, the Center should also feature an "expert" help desk. Representatives from key city departments should be required to staff the help desk, and to be available by both appointment and on a drop-in basis. Departments that regularly interface with businesses will staff the help desk on a rotating basis. Representatives from the Department of

Building Inspections, Human Rights Commission, Purchasing, the Fire Department, the Planning Department, Department of Public Works, and the Department of Public Health will be asked to participate.

Evaluate and Refocus the City's Assistance Programs for Businesses

In many cities, technical and financial assistance to small business forms a vital part of an overall strategy to help these sectors adjust to economic change and identify new markets, technologies, business plans, and pathways to profitability. In San Francisco, however, a patchwork of programs exist across multiple agencies, including MOEWD, the Mayor's Office of Community Development, the San Francisco Redevelopment Agency, and the Small Business Commission. These programs are not coordinated, and outcomes are not measured across agencies. Results from the Survey of Business Barriers, detailed in Appendix J, confirms that technical and financial assistance are not seen as critical elements of the business climate here.

The City clearly needs to evaluate its existing business technical assistance and financing programs, and refocus them to work in an integrated and coordinated fashion that better meets the needs of local small businesses. The creation of a new system of managing business interaction with City Hall, involving 311, sfbizinfo.org, and the Small Business Assistance Center, will create an ideal opportunity to evaluate the needs, and level of demand, of the local business community for technical and financial assistance. By creating a profile of visitors to the one-stop center that are referred to technical assistance or are good candidates for a loan or grant, the city can then redesign its assistance programs for greater effectiveness. With this information in hand, MOEWD should work with these agencies to develop a 5 year strategic plan for business assistance that clearly designates roles and responsibilities in order to measure outcomes and ensure an effective use of resources.

Evaluate Economic Impact of City Polices on Business

A requirement of Proposition I passed in November 2004 is that the Office of Economic Analysis (OEA) in the Controller's Office prepare an economic impact report whenever proposed legislation affects the goals, strategic priorities, or broad policy directions of this economic strategy. This economic review helps to ensure that economic impacts are considered during the legislative process, and that the legislation promotes the City's economic development goals. The OEA began drafting economic impact reports in advance of this strategy being completed and the practice should continue.

Moving forward, reports should be written when any of the following three conditions are met:

- When such legislation impacts the goals of overall economic development, employment opportunities for low-income or disabled residents, or business tax revenues.
- When such legislation impacts the strategic priorities of fostering the growth of small knowledge sector start-ups, retaining large knowledge-sector establishments, strengthening companies in the physical infrastructure sector, and upgrading the experience sector.
- When such legislation impacts the broad policy directions associated with each of the economic foundations, as detailed in this chapter.

Use City Purchasing and Regulation To Promote Competitiveness in Priority Sectors

With a six billion dollar budget, the City and County of San Francisco is a powerful force in the local economy. Business focus groups suggested that the City's contracting process is too complicated and inaccessible for small local businesses. Furthermore, there are clear opportunities to advance the goals of this strategy, and other important goals, with a careful and strategic approach to government procurement and business regulation.

One important example is the clean technology sector. City procurement and regulation to support environmental protection and energy conservation could have the effect of stimulating the emerging clean tech sector in San Francisco. For example, the City currently requires the LEED Silver green building standard for all municipal buildings, and legislation is pending that would apply stricter requirements to all major new construction. This, and other potential legislation aimed at reducing greenhouse gas emissions, would simultaneously stimulate the green construction industry, in segments such as solar panel installation, and new, salvaged, and recycled construction materials. The City should pursue this and similar regulation, when its economic impact is not too onerous.

In fact, the development of a green economy, with its emphasis on local production and sustainability, could potentially reinvigorate much of the physical infrastructure sector that has otherwise seen decades of decline. The City can also promote the renewal of this sector by fast-tracking the permitting of new renewable energy sources, such as bio-diesel, wind power, tidal power, geothermal, and biomass-based electricity generation. Innovative forms of green transportation, such as plug-in hybrid vehicles, would require a new infrastructure of electricity-equipped parking spaces. Committing to provide, and/or requiring, such parking spaces would create new jobs, new skills, and potentially new businesses in the green economy. The widespread use of such hybrid vehicles, and other forms of distributed energy generation, would require a revamped, smarter electricity grid—also requiring new investment and creating new jobs. As the City and the state of California work to achieve ambitious greenhouse gas reduction targets, new market opportunities will appear. The economic development challenge is to ensure that local businesses are prepared to capture that opportunity, and that local residents are prepared to staff those jobs.

More broadly, creating an open and straightforward city contracting process helps small local business. In 2005 Mayor Newsom issued an Executive Directive for the City to increase city purchasing from small local businesses, but it did not set any goals or target amounts.

The Small Business Commission (SBC) and the Human Rights Commission (HRC) should increase outreach to certify more small local businesses as LBEs (local business enterprises). SBC and Purchasing should keep updated and disseminate a list of certified LBEs widely to City Departments. The Mayor and the SBC should decide whether or not to require specific LBE participation rates on certain types of contracts/spending, keeping in mind the strategic issues just discussed.

On an ongoing basis, the SBC should work with Purchasing and the HRC to evaluate the process of LBE certification, and determine if there are ways to make it more efficient and streamlined.

The SBC should also ensure the LBE framework has built-in tracking and outcome measures so results are easy to measure and quantify.

Quality of Life Goals and Recommendations

As discussed in the introduction, quality of life foundations fundamentally determine San Francisco's ability to upgrade its experience sector, and also help build and sustain the City's pool of highly skilled workers, which is vital to continued growth and innovation in the knowledge sector. As with the other economic foundations, San Francisco has great economic strength in its quality of life, but many challenges were revealed by this research. The strategy proposes the following goals related to the quality of life in San Francisco:

- Upgrade Neighborhood Commercial Areas
- Encourage Creativity by Continuing to Develop San Francisco as a Center for the Arts
- Recognize and Enhance the Value of Parks and Open Spaces

Specific recommendations to advance each goal are proposed below.

Upgrade Neighborhood Commercial Areas

San Francisco’s neighborhood commercial areas are a vital part of the City’s spatial fabric, for reasons that go far beyond economic development. They are central to the quality of life that many residents experience in San Francisco, they express the City’s cultural vitality and diversity, and they help to reduce the need for automobile-based large retail complexes. At the same time, the experience of San Francisco’s neighborhoods are a major reason why visitors come to the City. These recommendations speak to this dual value of neighborhood commercial areas to San Francisco.

The San Francisco Convention and Visitors Bureau's (SFCVB) should expand its tourism marketing to include distinctive neighborhood districts, in order to increase the number of visitors to these areas. Every neighborhood commercial area should be provided SFCVB resources to develop a marketing strategy and promote its distinctive commercial and community amenities. The SFCVB should use these neighborhood strategies to broaden the San Francisco experience, incorporating a broader array of the City's diverse neighborhoods.

As part of these efforts, for those neighborhood commercial districts not well served by public transportation. MOEWD, the Convention and Visitors Bureau and private sector partners should assess the feasibility of creating free shuttles between neighborhoods. The shuttles could run from more traditional tourist destinations to outlying neighborhoods.

For the same reasons, MOEWD should also continue to ensure there are adequate resources to maintain and expand the Neighborhood Marketplace Initiative. This program provides grants, interagency coordination, business attraction assistance, and other technical support to commercial districts that do not have the capacity to initially pass a community benefit district but are committed to organize themselves to work together and pursue a range of corridor enhancements, and may ultimately pass a CBD (Community Benefits District).

Strengthening the quality of life by strengthening neighborhood commercial areas requires ongoing investment. Major efforts should be made to institutionalize programs aimed at maintaining and beautifying neighborhood commercial districts, including streetscape, corridor maintenance, and facade improvement programs. The Planning Department, DPW, and MTA should identify a permanent funding source for the streetscape improvement program and direct resources to major arterials, developing neighborhood commercial districts, and particularly to commercial areas receiving other City upgrades. Furthermore, the Mayor's Office and DPW should evaluate the effectiveness of City-funded street maintenance programs and consider expanding them where appropriate, as well as extending their term. The Mayor's Office should also promote the availability of façade improvement matching grants to select businesses in developing neighborhood commercial districts, both as a means of improving individual businesses and enhancing the attractiveness of commercial areas.

Encourage Creativity by Continuing to Develop San Francisco as a Center for the Arts

Economic development planners are increasingly recognizing the economic value of the arts, not merely as direct sources of jobs, but as sources of competitive advantage in critical industries ranging from tourism to new media to design and architecture. Chapter 4 showed that San Francisco is a major national center of the arts now. The City needs to retain and expand that role, in order to achieve priorities of this strategy, such as upgrading the City's experience sector, and promoting greater innovation and diversification in the knowledge sector.

In the last two years, the San Francisco Arts Task Force thoroughly examined the arts infrastructure in the City. Several of its recommendations directly relate to the economic value of the arts in San Francisco, and the economic sustainability of the arts industry, and will be adopted by this strategy.

In particular, this strategy adopts the Task Force recommendation that the City use its land use and financial resources to create a substantially increased supply of affordable housing and work spaces for artists. Artists, like other workers in industries where non-profit organizations are prevalent, such as education, are often underpaid relative to the value their work creates for the community. As housing prices have risen in the City, residential and work space that is affordable to artists has become increasingly scarce. This will create a long-run weakness in the City's economy if it is not remedied. The Task Force recommends density bonuses be awarded for developers who include arts space in their projects.

Secondly, the City should adopt the Task Force recommendation that new programs be developed to provide new presenting opportunities for artists, both within the City and beyond. Increasing local opportunities for artist presentation could be a vital part of upgrading the quality of the visitor experience in San Francisco, and should be pursued wherever possible. The Task Force recommends the creation and support of a touring program, which would raise the visibility of the San Francisco arts industry, and contribute to tourism marketing in a distinctive way that complements existing efforts.

Thirdly, the Task Force makes two worthy recommendations relating to the strengthening the economic impact of the arts industry. The City should ensure that information and resources

relevant to artists are included in the 311/website/Business Assistance Center model of small business support detailed in a previous section. This will enhance the viability of many arts organizations and individual artists, strengthening the industry. Secondly, the SFCVB and the arts-funding organizations in the City should collaborate on efforts to expand arts and cultural tourism in San Francisco, particularly in conjunction with the neighborhood marketing efforts described earlier in this section.

Recognize and Enhance the Value of Parks and Open Spaces

Parks and open spaces are also, like neighborhoods and the arts, now being recognized as economic development foundations in their own right. Both are central to San Francisco's tourism product, as well as the residential quality of life that attracts creative, talented, and highly productive people to live in the City. Many economic studies have documented the value of investments in parks and open space, through their contribution to tourism, surrounding land value, low-cost recreation and entertainment, and the overall health of the environment.

For these reasons, and from an economic development point of view, San Francisco needs to find long-term solutions for park and open space maintenance, to ensure that these remain high-quality amenities, valued by residents and visitors.

The Recreation and Park Department (Rec & Park) should explore the feasibility of creating and managing Park Improvement Districts (PIDs) to fund capital improvements and maintenance for civic squares and plazas. Based on the CBD model, surrounding residents and businesses could organize and fund the PIDs. These PIDs could also fund enhanced public safety services, support increased maintenance, as well as contribute to capital improvements.

All around the nation, great cities are partnering with nonprofit institutions to create and maintain public spaces. (New York/Central Park, Chicago/Millennium Park). In San Francisco the Playfield Initiative is using philanthropic dollars to resurface playfields through the city. Rec & Park should continue to work closely with the Playfield Initiative to identify suitable fields. In addition Rec & Park should use this partnership as a model to develop ongoing relationships with other nonprofits that could fund improvements in play structures and other park amenities throughout the City.

Infrastructure Goals and Recommendations

Urban infrastructure has always driven the economy of cities, and San Francisco is no exception. While the central economic importance of the City’s port has declined in recent decades, its ground and air transportation systems, its spatial concentration of office space in the downtown area and elsewhere, and its industrial areas are all critical to the City’s ability to provide a range of quality jobs for residents. As far as the priorities of this strategy are concerned, creating and maintaining the City’s infrastructure is especially necessary, both to retain large knowledge sector companies in San Francisco as they grow, and to strengthen the City’s physical infrastructure businesses that make, move, and store manufactured goods.

The previous chapter emphasized the importance of transit in the Bay Area's economic future, and the special implications that can have for downtown San Francisco, which is the most

transit-accessible work place in the region. This fact, together with the feedback received from the Barriers Survey and business focus groups, led to a series of action areas related to infrastructure. The strategy proposes the following goals for infrastructure:

- Provide Sufficient Real Estate for Strategic Priorities
- Maximize San Francisco's Accessibility to a Local and Regional Workforce
- Work to Reduce the Cost of Residential and Commercial Development

Specific recommendations to advance each goal are proposed below.

Provide Sufficient Real Estate for Strategic Priorities

All four of the strategic priorities of this economic development plan: encouraging knowledge sector start-ups, retaining large knowledge sector companies, strengthening the physical infrastructure sector, and upgrading the experience sector, have implications for land use. These implications cover both the amount, and the type, of space and infrastructure each priority needs. The Planning Department should ensure the needs of these priorities are reflected in its area plans and community benefits programs, particularly since the goals of this strategy closely correspond to the general goals in the Commerce and Industry element of the City's General Plan.

In general, the City needs to provide a clear and rational land use entitlement process. This will attract private sector investment around this strategy's sector priorities, and will have significant impacts on the City's ability to achieve its economic development goals. In particular, the Planning Department should complete the Eastern Neighborhoods Plan as quickly as possible, which will provide certainty and stability to land use designations for over a third of the City. In addition, future land use planning should emphasize creating zoning that supports emerging, growth industries and other priorities of this strategy, including sufficient space for companies in the physical infrastructure sector.

Maximize San Francisco's Accessibility to a Local and Regional Workforce

Chapter 4 highlighted the importance of transit to San Francisco's past and future economic development. As regional freeway congestion and gasoline prices continue to rise, San Francisco's legacy of investment in public transportation infrastructure can become a significant source of competitive advantage for the City, and the entire region. The following recommendations will help San Francisco successfully meet this challenge.

The MTA, along with regional, state, and federal partners, must fund, implement, and support major transit investments. A particular priority should be placed on major projects that increase the regional accessibility of San Francisco, and none is more important than the Transbay Transit Center, including the proposed CalTrain extension and the high speed rail network. The first stage of the project involves rebuilding the existing bus terminal to handle increased commuter bus traffic from the East Bay. San Francisco vitally needs to expand inbound transit capacity from the East Bay in order to compete with suburban office centers on that side of the bay.

The extension of CalTrain to the Transbay Transit Center at First and Mission streets will make downtown San Francisco a transit-accessible work location for thousands of knowledge workers who live in the Peninsula and the South Bay, helping to further spatially integrate the San Francisco and Silicon Valley economies, and creating new growth opportunities for the City. High-speed rail has the potential to cement San Francisco's position as a key node in the state-wide network of dynamic, knowledge-based cities, including San Diego, Los Angeles, and San Jose. The City's knowledge sector would greatly benefit from faster interaction with these major urban economies.

Over the longer term, the City must recognize the economic benefits, and lead regional efforts, to expand BART capacity into downtown San Francisco and potentially other parts of the City as well.

On the purely local level, the MTA and the City generally must fund efforts to improve the reliability and efficiency of the transit system, including technological (e.g. real-time passenger information, transit-priority traffic signals), operational, and physical (e.g. dedicated roadway space). The MTA and the City should also develop bicycle and pedestrian projects of major regional value that improve regional connectivity, commuting, and highlight places of value for tourism.

Work to Reduce the Cost of Residential and Commercial Development

The high cost of development of housing and commercial office buildings is an important contributing factor to the high cost of housing, and the disappearance of middle-income office jobs, and residents, from San Francisco.

Land is always at a premium in successful cities, but the City's processes contribute to the high cost of development as well. MOEWD should play a role in the redesign of business systems that are currently underway in City government. The Planning Department and Department of Building Inspection (DBI) have historically long process times that have slowed and even stifled development. DBI is currently undergoing a business process reengineering review, and working more collaboratively with Planning to streamline building processes. This project should be monitored by MOEWD.

In 2006, the San Francisco Planning and Urban Research Association (SPUR) issued a series of excellent recommendations to reduce the cost and expand the supply of housing in the City. One recommendation in particular applies to both residential and commercial development—streamlining the permitting process. SPUR suggests a series of measures that will increase the amount of up-front area planning, but reduce the time, cost, and uncertainty of approving specific projects. One important part of this is the creation of area plans with program environmental impact reviews (EIRs), that reduce the need for costly EIRs associated with specific projects. The Planning Department's Better Neighborhood Program was originally intended to create such a true framework for community planning, but subsequent plans have not fulfilled the promise.

SPUR also recommends creating incentives for the replacement of single-story retail buildings with multi-story mixed-use projects, and creating incentives for additional secondary units. Both

of these recommendations could significantly expand the housing supply, easing wage pressures in the City and improving the ability of the City to achieve the economic goals of this strategy.

Increasing homeownership is another important way of stabilizing housing costs, and ensuring that the benefits of economic development—and appreciating land values—are broadly felt across the City's population. The City should commit to citywide goals for homeownership, which should increase over time.

Technology and Innovation Recommendations

The Bay Area's R&D and venture capital resources are what give it its impressive role as a leader of the world's high technology and knowledge-based industries. Across the region, there is an impressive array of facilities, institutions, and infrastructure that effectively convert ideas into jobs and economic development. In San Francisco these facilities are not as numerous as in neighboring communities, and they are increasingly constrained as they seek to grow. As the Silicon Valley innovation economy extends across the Bay Area, and as the City seeks to broaden its base of high technology businesses to take advantage of those opportunities, strong technology foundations must be a central element of San Francisco's economic strategy. In this context, the City should pursue the following policies to strengthen its technology and innovation foundations.

- Support Commercialization of Research and Technology
- Improve Telecommunications Infrastructure for Information-Intensive Industries
- Support Efforts to Create More Investment Vehicles for Startups
- Identify, Evaluate, and Support Emerging Industries

Support Commercialization of Research and Technology

Many cities have sought to develop high technology industries through the development of business incubators, which provide discounted space, and business services, to start-up firms at the earliest stage. Incubator development is part of a trend of technology-based economic development, that seeks to capitalize on the economic value of university research by encouraging the commercialization of that research as new start-up firms.

While such an approach has been criticized for trying to promote innovation simply by building new office and lab space, Chapter 4 showed that San Francisco and the Bay Area already have an abundance of R&D talent and assets. There is every reason to believe that new incubators, targeted at emerging industries such as biotechnology, clean technology, and digital media, would quickly be occupied with a new generation of start-up businesses in San Francisco.

MOEWD should therefore explore the feasibility of creating additional incubator space for early stage biotech companies at a location adjacent or close to the existing QB3 center, which currently only has 2,500 square feet. The biotech incubator should reflect the needs of early-stage life science companies, by offering flexibility, a range of rental options that allow for expansion, shared equipment and services, and reasonable rental rates and terms.

MOEWD should also explore, with private sector partners, the feasibility of developing additional incubator space for technology companies at the Hunter's Point Shipyard, or other city owned locations in the Eastern Neighborhoods, such as Pier 70 or the San Francisco General Hospital.

Finally MOEWD should explore partnerships with UCSF and other universities and research institutions in the Bay Area to develop additional research institutes along the likes of QB3. The accessibility, quality of life, existing research community, and entrepreneurial dynamism in the City make San Francisco potentially very attractive for new research and commercialization organizations developing in, or moving to, the Bay Area.

Improve Telecommunications Infrastructure for Information-Intensive Industries

San Francisco's established and emerging knowledge industries, from financial services to digital media and biotechnology, are information-intensive industries that require ready access to affordable high bandwidth services. These high bandwidth services provide a critical link to regional, national, and international markets, clients, and partners. To encourage continued growth in these industries, the City must ensure that broadband infrastructure is available at competitive prices and levels of service. The City owns a significant broadband infrastructure, in the form of fiber optic facilities, that is currently underutilized. As a first step, the City should consider making this unused capacity available to businesses, at a reasonable cost. In addition, the Department of Telecommunications and Information Services should conclude its Citywide fiber feasibility study, including an examination of the potential economic benefits of supporting businesses that rely on advanced broadband infrastructure.

Support Efforts to Create More Investment Vehicles for Startups

A key competitive advantage of San Francisco's knowledge sector, compared to other regions, is access to venture capital and the expertise those investors offer to start-up companies. However, early stage companies often experience a financing gap, and a need for so-called *seed capital*, after founder capital has been exhausted, but before the company is sufficiently mature to attract venture investment. In the years following the collapse of the dot-com bubble, venture capitalists have been less willing to make early stage investments, and this threatens San Francisco's competitive advantage in finance.

The City therefore has an interest in helping new, seed-stage companies to access and take advantage of investment opportunities, and potentially organizing those efforts itself. This could include promoting private sector efforts to create and capitalize a San Francisco focused seed-capital investment fund, supporting state and federal policy changes that facilitate investment, and creating a temporary advisory group of entrepreneurs and investors to make specific recommendations on how the City can ensure new companies will grow and succeed in San Francisco.

Identify, Evaluate, and Support Emerging Industries

The city should have a framework for identifying, evaluating and supporting emerging industries and potential driving industries in San Francisco. MOEWD should leverage the expertise of the industry experts and research luminaries to advise the City on which emerging industries best

meet both the City's economic development objectives and can succeed in San Francisco based on the City's value proposition. This could exist as an Emerging Industries Advisory Council as part of an existing group (like SPUR) or could be composed of representatives including economists, academics, and investment professionals. The organization would function as a San Francisco "think tank" to advise the city on emerging industries that could meet the city's economic and workforce objectives.

Final Conclusions

Economic development planning processes are important times for taking stock of where a city has been, and where it can go in the future. The San Francisco Economic Strategy has developed a flexible, yet structured, framework for thinking about the San Francisco economy, and understanding how a wide variety of public and private actions can contribute to its economic development.

Ultimately, the San Francisco Economic Strategy is about changing *economic outcomes*—the city-wide economic indicators that essentially determine how well off we are as a city. San Francisco has seen slow job growth for decades. Most of the job growth we have seen are in very high wage, or very low wage jobs, which has contributed to income inequality in the City. Many low- and middle-income people, when confronted with a lack of economic opportunity and high housing costs, have decided to leave San Francisco—weakening communities and making the City a less diverse and accommodating place.

In order to change these economic outcomes, San Francisco needs to stimulate its *economic drivers*—the export-oriented industries whose competitiveness drives our prosperity—in specific ways. This strategy has established four strategic priorities related to the industries that drive San Francisco's economy; making progress on these priorities will, in time, reverse the negative trends in the City's economy that this research has uncovered:

Foster a greater variety of start-up companies across the knowledge sector in San Francisco. San Francisco is a very entrepreneurial city, and home to many innovative small companies, particularly in the information technology, media, and professional service industries. However, our location at the heart of the world's most dynamic high technology region means San Francisco could do a much better job incubating new businesses across the exciting array of technology industries that are emerging across the region. These knowledge sectors businesses, such as biotechnology, digital media, and clean technology will likely be San Francisco's greatest opportunity for job growth in the near future.

Encourage knowledge companies to expand in San Francisco as they grow. As important as technology start-ups are to San Francisco's job growth, start-up companies generally don't offer a broad range of jobs to residents without an advanced education. Larger knowledge sector companies, however, *do* provide those jobs—particularly technician, clerical, and business operation specialist jobs requiring a community college-level education, or other specialized post-high-school training. San Francisco needs to do a better job retaining our innovative start-ups within the City as they succeed and grow, because that is where the pay-off, in terms of new middle-level jobs, will be felt.

Upgrade the quality of San Francisco's experience sector—San Francisco is one of the world's leading tourist destinations, but, with limited space, growing the visitor industry is going to take creativity. The general strategy for the visitor industry is to add more value per visitor by continuously working to improve the quality of the visitor experience—both within companies, and across the City as a whole. Since the quality of experience in hospitality industries is closely tied to the quality of the workforce, San Francisco can create better jobs, and a higher value-

added industry, by focusing workforce training on the key occupations that are decisive for the visitor experience.

Strengthen the physical infrastructure sector—Industries like manufacturing, construction, transportation, and wholesale trade offer quality jobs to workers without an advanced degree, and are vital to the economic sustainability of many communities within San Francisco. These industries largely serve the City's export-oriented knowledge and experience sectors, but changes in the global economy have caused most of them to fail to keep up with job growth in other sectors. In order to preserve and, ideally, grow this sector, San Francisco needs to do a better job at linking the physical infrastructure companies—and its workforce—to the City's economic mainstream, so they can grow, evolve, and innovate alongside the rest of San Francisco's knowledge and experience economy.

Making progress on these strategic priorities requires improving and tailoring the *economic foundations* that support these and other businesses in the City. San Francisco has some specific weaknesses—and these priority industries have some specific needs—that public policy can and should address.

The single most important economic foundation challenge is education and training. San Francisco lacks a workforce policy system that is customer-focused, and aimed at providing relevant skills training for large numbers of San Franciscans. Rebuilding a Workforce Investment Board with high-level private sector leadership will be a critical part of this process. So will linking workforce development and economic development. Each of the economic strategy priorities just described has a workforce component, and the City needs to institutionalize these connections so that efforts to attract quality jobs go hand-in-hand with efforts to prepare people for those jobs. Ensuring San Francisco's young people are prepared, at an early stage, for those careers will be a critical part of this process, as is eliminating the digital divide.

San Francisco also has a high cost of doing business, even by Bay Area standards. A large part of this is tied to our housing costs, and admittedly there are limitations to what the City, acting alone, can do on this score. However, there are many barriers to creating more housing in San Francisco, and they must be addressed. Tax policy is presently another source of competitive disadvantage that the City has more control over. San Francisco has to realize that businesses can, and increasingly do, move to neighboring cities in the Bay Area to pay lower taxes. They are also able to reap many of the same workforce, quality of life, and other economic foundations that San Francisco companies benefit from. If the City is to accelerate its job growth in the strategic priority areas, it will need a tax policy that removes this competitive disadvantage.

Additional research confirmed that many businesses also find interactions with the City government to be unnecessarily cumbersome. This strategy proposes several immediate measures to try and remedy this. Finally, San Francisco, in comparison with most other large cities, has a fairly informal approach to economic development policy. A greater, more institutionalized, commitment to economic development policy to achieve the goals outlined in this strategy could significantly benefit the city and its residents.

The quality of life in San Francisco is a major reason for the city's economic success to this point, but success in the future cannot be guaranteed. If visitors and talented innovators and entrepreneurs are going to continue to seek out the city, San Francisco must recognize and invest in the quality of its neighborhoods, arts, and parks and public spaces.

In terms of physical infrastructure, San Francisco needs to be aware of the special space and environmental needs of many of the strategic priorities—the experience sector needs quality architecture; biotechnology needs research and lab space; the physical infrastructure needs zones where industrial activities will not be disturbed or displaced. Perhaps the more fundamental infrastructure need relates to transportation and San Francisco's place at the center of the Bay Area. As the region comes to rely more on transit in the future, San Francisco is a natural place for transit commuters to work; it must, however, have the transit capacity and regional accessibility to capitalize on that potential.

Small business is an increasingly vital sector of San Francisco's economy. This is not simply true because so many San Francisco residents work for small businesses, but because the innovative aspect of entrepreneurship—the act of taking new and untested ideas to market—is central to San Francisco's competitiveness today. The City needs to continue to expand technical assistance, financing programs, and local market development efforts to sustain small businesses as they grow.

Finally, San Francisco needs to do more with the research and technology infrastructure that it has, both within the City and across the region. The Bay Area is the world's leader in academic R&D investment, university spin-offs, and venture capital investment. This nexus of research innovation, risk-tolerant investors, and technology management is central to how knowledge clusters form and succeed. San Francisco needs to facilitate the growth of research-performing organizations within the City, and also needs to promote the commercialization of that research, so that R&D investment can translate into local jobs.

At the core of this entire planning process has been a strategy framework that is aimed at maximizing the City's control over its economic future, in a world in which many economic forces operate at a global level and are beyond the control of any one government. San Francisco cannot afford to forget this. Many once-prosperous cities took their economic drivers for granted, and ignored the erosion of the competitive advantages that created them. San Francisco is no more guaranteed of prosperity today than Detroit or Pittsburgh was fifty years ago. At the same time, economic strategy affords the opportunity to consider and work towards a vision of what the community's goals for economic development are, and how it can contribute to a shared understanding of "the good city".

The global city of San Francisco is at the fulcrum of fundamental transformations in the global economy, and, as a result, we have experienced change at a much more rapid pace than a typical U.S. city. Much of this change is clearly beneficial; indeed, the economy of our city and region is the envy of people the world over. Other changes have challenged the city's traditional values and commitment to equality and broad-based opportunity for all people and communities. Notwithstanding our individual reaction to these changes, the fact remains that without a plan to guide a response to change, reactions can be haphazard, confused, or even counter-productive.

The San Francisco Economic Strategy is not merely a guide to increasing the city's competitiveness, although that is a vital prerequisite to achieving its broader economic aspirations. Ultimately, as it comes to be adopted by the City, it can serve as a set of tools to maintain, as best as possible, the economy we want for ourselves in a global system over which we have little control.

Appendix A: Notes on Methodology

Note [1] Methodology for calculating peer city gini coefficients, 1990 & 2000.

Data source: U.S. Census Public Use Microdata Samples (PUMS). Downloaded from IPUMS, University of Minnesota Population Statistics Center. http://www.ipums.org.

2000:

Case Selections

Used equivalency files to select PUMAs that corresponded to the *central city* (place FIPS code) of the 10 peer cities. (Austin (485000), Boston (257000), Chicago (1714000), New York (3651000), San Francisco (0667000), San Diego (0666000), Los Angeles (0644000), Seattle (5363000), Washington, D.C. (1150000), and Santa Clara County (County FIPS=06085)).

Selected only the household records. Removed records from group quarters and vacant housing units (UNITTYPE=0 & TENURE= 1,2,3 or 4). Variables used were HINC (total household income, 1999), GRENT, gross monthly rent; SMOC, selected monthly owner costs. After-housing income was calculated by multiplying the appropriate housing cost variable by 12 and subtracting from HINC.

Calculation of gini coefficients

Exported each city's records to a .txt file and imported all files into a single STATA file. Note: chose to make calculations in STATA rather than Excel because the larger cities (NY, LA, CHIC) had more than 65K housing records.

1990:

Case selections

4) Same as above.

5) Removed records from group quarters and vacant housing units (GQINST=0 & TENURE= 1,2,3 or 4 & VACANCY2=0). Variables used were RHHINC (total household income, 1989), RGRENT, gross monthly rent; ROWNRCST, selected monthly owner costs. After-housing income was calculated by multiplying the appropriate housing cost variable by 12 and subtracting from RHHINC.

Calculation of gini coefficients

6) Same as above.

Note[2] Methodology for determining recent migration trends.

The Internal Revenue Service provides aggregate county-based data that is often used by demographers to estimate internal (within the U.S.) migration, since the IRS can tell who has

changed addresses from one year to the next. The IRS provides data on a pairwise, county-to-county basis, i.e. the total migration from every US county to San Francisco in a given year, and the total migration from San Francisco to every U.S. county in a year. Within a pairwise data record, the IRS provides information on the total number of returns, the total number of exemptions, and the aggregate adjusted gross income contained in all returns within that particular county-to-county flow. In creating charts based on this data, total migration is defined as the number of exemptions, average household size is defined as the number of exemptions divided by the number of returns, and average household income is defined as aggregate adjusted gross income, divided by the number of returns.

Note[3] Methodology for determining age profile of San Francisco migration.

Data on migration by age cohort is not available directly and was estimated indirectly. A population growth model for San Francisco was developed based on 1990 data and carried forward ten years, assuming no migration. The model was based on actual vital statistics for San Francisco, and projected what San Francisco's population would have been in 2000, by age cohort, had there been no migration. Comparing the model results with actual 2000 population by age cohort derived the estimate of migration by age cohort.

Note [4] Methodology for determining share of employment by firm size.

Acquired County Business Pattern Data from the University of Virginia library from 1977 to 2003. Data contained annual establishment counts by firm size class in San Francisco. Firm size range midpoints were used to estimate employment totals by firm size class. The midpoint for the 1,000+ class was calculated from the 1,000-1,499, 1,500-2,499, 2,500-4,999, and 5,000+ ranges. Midpoints were used for all except 5,000+, for which 5,000 was used every year.

Note[5] Methodology for determining average commute times across Bay Area employment centers.

Data sources: The 2000 Census Transportation Planning Package (CTPP); The 1990 and 2000 Journey to Work Files from the U.S. Census. In both 1990 and 2000, the Journey to Work file contains information about the number of workers in, and the mean travel time to, each traffic analysis zone(TAZ), in 1990, or census tract, in 2000. "Downtowns", as reported in the figure, are some combination of adjacent TAZs or tracts, as defined below. These were defined visually, by ICF, with an attempt to ensure a consistent spatial definition of downtowns in the two periods. The mean traffic time to a downtown is defined as the aggregate travel time to the downtown, divided by the total employment in the downtown. The aggregate travel time is defined as the sum, across all TAZs/tracts in a downtown, of mean travel time multiplied by number of employees.

Table 6. 1990 'Downtown' Traffic Analysis Zones

Area	TAZ
West Berkeley/Emeryville	7360407241

West Berkeley/Emeryville	7360407242
West Berkeley/Emeryville	7360407352
West Berkeley/Emeryville	7360407232
West Berkeley/Emeryville	7360407231
West Berkeley/Emeryville	7360407222
Concord	7360507991
Concord	7360507997
Concord	7360507996
Concord	7360507998
Concord	7360507995
Concord	7360508091
Concord	7360508092
Concord	7360508081
Concord	7360507994
Concord	7360507992
Concord	7360507993
Downtown Oakland	7360406963
Downtown Oakland	736040699D
Downtown Oakland	736040699A
Downtown Oakland	736040699B
Downtown Oakland	7360406998
Downtown Oakland	7360406997
Downtown Oakland	736040699C
Downtown Oakland	7360406964
Downtown Oakland	7360406962
Downtown Oakland	7360406965
Downtown Oakland	7360406999
Downtown Oakland	7360406995
Downtown Oakland	7360406996
Downtown Oakland	7360406961

Pleasanton	7360405262
Pleasanton	7360405263
Pleasanton	7360405261
Pleasanton	7360405301
Pleasanton	7360405302
Pleasanton	7360405265
Pleasanton	7360405264
Downtown San Francisco	7360100152
Downtown San Francisco	7360100101
Downtown San Francisco	7360100151
Downtown San Francisco	7360100052
Downtown San Francisco	7360100042
Downtown San Francisco	7360100076
Downtown San Francisco	7360100072
Downtown San Francisco	7360100074
Downtown San Francisco	7360100073
Downtown San Francisco	7360100111
Downtown San Francisco	7360100153
Downtown San Francisco	7360100066
Downtown San Francisco	7360100065
Downtown San Francisco	7360100061
Downtown San Francisco	7360100064
Downtown San Francisco	7360100053
Downtown San Francisco	7360100062
Downtown San Francisco	7360100063
Downtown San Francisco	7360100075
Downtown San Francisco	7360100274
Downtown San Francisco	7360100275
Downtown San Francisco	7360100184
Downtown San Francisco	7360100252

Downtown San Francisco	7360100262
Downtown San Francisco	7360100161
Downtown San Francisco	736010001U
Downtown San Francisco	736010001V
Downtown San Francisco	7360100022
Downtown San Francisco	736010002D
Downtown San Francisco	736010002E
Downtown San Francisco	736010002H
Downtown San Francisco	736010002I
Downtown San Francisco	736010002N
Downtown San Francisco	736010002Q
Downtown San Francisco	7360100071
Downtown San Francisco	7360100021
Downtown San Francisco	7360100041
Downtown San Francisco	736010002R
Downtown San Francisco	7360100043
Downtown San Francisco	736010002F
Downtown San Francisco	736010002G
Downtown San Francisco	736010002O
Downtown San Francisco	736010002P
Downtown San Francisco	736010002C
Downtown San Francisco	736010002B
Downtown San Francisco	736010002A
Downtown San Francisco	7360100029
Downtown San Francisco	7360100082
Downtown San Francisco	7360100162
Downtown San Francisco	7360100167
Downtown San Francisco	7360100166
Downtown San Francisco	7360100012
Downtown San Francisco	736010001H

Downtown San Francisco	736010001J
Downtown San Francisco	736010009D
Downtown San Francisco	736010009E
Downtown San Francisco	7360100081
Downtown San Francisco	7360100102
Downtown San Francisco	7360100103
Downtown San Francisco	736010009C
Downtown San Francisco	7360100099
Downtown San Francisco	736010009B
Downtown San Francisco	7360100086
Downtown San Francisco	736010002L
Downtown San Francisco	7360100084
Downtown San Francisco	7360100085
Downtown San Francisco	7360100083
Downtown San Francisco	7360100112
Downtown San Francisco	736010002K
Downtown San Francisco	736010002J
Downtown San Francisco	736010002M
Downtown San Francisco	7360100176
Downtown San Francisco	7360100173
Downtown San Francisco	7360100171
Downtown San Francisco	736010017C
Downtown San Francisco	736010001A
Downtown San Francisco	7360100019
Downtown San Francisco	736010001D
Downtown San Francisco	7360100179
Downtown San Francisco	736010017E
Downtown San Francisco	7360100017
Downtown San Francisco	7360100016
Downtown San Francisco	7360100018

Downtown San Francisco	7360100015
Downtown San Francisco	736010001E
Downtown San Francisco	736010001N
Downtown San Francisco	736010001M
Downtown San Francisco	7360100027
Downtown San Francisco	7360100014
Downtown San Francisco	736010001T
Downtown San Francisco	736010001B
Downtown San Francisco	736010001S
Downtown San Francisco	736010001C
Downtown San Francisco	736010001O
Downtown San Francisco	736010001R
Downtown San Francisco	736010001Q
Downtown San Francisco	7360100024
Downtown San Francisco	736010001P
Downtown San Francisco	7360100025
Downtown San Francisco	7360100023
Downtown San Francisco	7360100026
Downtown San Francisco	736010017A
Downtown San Francisco	736010017D
Downtown San Francisco	736010001F
Downtown San Francisco	736010001L
Downtown San Francisco	736010001G
Downtown San Francisco	736010001K
Downtown San Francisco	7360100028
Downtown San Francisco	7360100172
Downtown San Francisco	7360100168
Downtown San Francisco	7360100013
Downtown San Francisco	7360100177
Downtown San Francisco	7360100178

Downtown San Francisco	736010017F
Downtown San Francisco	7360100011
Downtown San Francisco	736010001I
Downtown San Francisco	7360100164
Downtown San Francisco	7360100096
Downtown San Francisco	7360100091
Downtown San Francisco	7360100165
Downtown San Francisco	736010009A
Downtown San Francisco	7360100095
Downtown San Francisco	7360100094
Downtown San Francisco	7360100097
Downtown San Francisco	7360100163
Downtown San Francisco	7360100092
Downtown San Francisco	7360100261
Downtown San Francisco	7360100312
Downtown San Francisco	7360100093
Downtown San Francisco	7360100098
San Rafael	7360910812
San Rafael	7360910762
San Rafael	7360910761
San Rafael	7360910814
San Rafael	7360910774
San Rafael	7360910775
San Rafael	7360910771
San Rafael	7360910773
San Rafael	7360910772
San Rafael	7360910813
San Rafael	7360910811
San Ramon	7360508621
San Ramon	7360508622

San Ramon	7360508627
San Ramon	7360508624
San Ramon	7360508625
San Ramon	7360508626
San Ramon	7360508623
Walnut Creek	7360508483
Walnut Creek	7360508472
Walnut Creek	7360508471
Walnut Creek	7360508482
Walnut Creek	7360508473
Walnut Creek	7360508474
Walnut Creek	7360508481
Mountain View/Sunnyvale	7360302890
Mountain View/Sunnyvale	7360302862
Mountain View/Sunnyvale	7360302753
Mountain View/Sunnyvale	7360302751
Mountain View/Sunnyvale	7360302570
Mountain View/Sunnyvale	7360302700
Mountain View/Sunnyvale	7360302761
Mountain View/Sunnyvale	7360302762
Mountain View/Sunnyvale	7360302871
Mountain View/Sunnyvale	7360302872
Mountain View/Sunnyvale	7360302771
Mountain View/Sunnyvale	7360302772
Mountain View/Sunnyvale	7360302783
Mountain View/Sunnyvale	7360302782
Mountain View/Sunnyvale	7360302754
Mountain View/Sunnyvale	7360302861
Mountain View/Sunnyvale	7360302752
San Mateo/Redwood City	7360202193

San Mateo/Redwood City	7360202198
San Mateo/Redwood City	7360201954
San Mateo/Redwood City	7360201952
San Mateo/Redwood City	7360202094
San Mateo/Redwood City	7360202111
San Mateo/Redwood City	7360202115
San Mateo/Redwood City	7360202093
San Mateo/Redwood City	7360202113
San Mateo/Redwood City	7360202112
San Mateo/Redwood City	7360202181
San Mateo/Redwood City	7360202114
San Mateo/Redwood City	7360202199
San Mateo/Redwood City	7360202092
San Mateo/Redwood City	7360201959
San Mateo/Redwood City	7360201951
Palo Alto/Menlo Park	7360202321
Palo Alto/Menlo Park	7360202329
Palo Alto/Menlo Park	7360202322
Palo Alto/Menlo Park	7360302432
Palo Alto/Menlo Park	7360302431
Palo Alto/Menlo Park	7360302451
Palo Alto/Menlo Park	7360302442
Palo Alto/Menlo Park	7360302443
Palo Alto/Menlo Park	7360302500
Palo Alto/Menlo Park	7360302482
Palo Alto/Menlo Park	7360302520
Palo Alto/Menlo Park	7360202323
Palo Alto/Menlo Park	7360202266
Palo Alto/Menlo Park	7360202267
Palo Alto/Menlo Park	736020226A

Palo Alto/Menlo Park	7360202341
Palo Alto/Menlo Park	7360202353
Palo Alto/Menlo Park	7360202344
Palo Alto/Menlo Park	7360202342
Palo Alto/Menlo Park	7360202345
Palo Alto/Menlo Park	7360202351
Palo Alto/Menlo Park	7360202352
Palo Alto/Menlo Park	7360302510
Palo Alto/Menlo Park	7360302481
North San Jose/Santa Clara	7360303133
North San Jose/Santa Clara	7360303211
North San Jose/Santa Clara	7360303202
North San Jose/Santa Clara	7360303230
North San Jose/Santa Clara	7360303240
North San Jose/Santa Clara	7360302920
North San Jose/Santa Clara	7360303151
North San Jose/Santa Clara	7360303152
North San Jose/Santa Clara	7360302881
North San Jose/Santa Clara	7360302882
North San Jose/Santa Clara	7360303050
North San Jose/Santa Clara	7360303192
North San Jose/Santa Clara	7360303172
North San Jose/Santa Clara	7360303134
North San Jose/Santa Clara	7360303302
North San Jose/Santa Clara	7360303290
North San Jose/Santa Clara	7360303161
North San Jose/Santa Clara	7360303142
North San Jose/Santa Clara	7360302933
North San Jose/Santa Clara	7360303060
North San Jose/Santa Clara	7360303070

North San Jose/Santa Clara	7360303132
North San Jose/Santa Clara	7360302931
North San Jose/Santa Clara	7360302932
North San Jose/Santa Clara	7360302883
North San Jose/Santa Clara	7360302884
North San Jose/Santa Clara	7360303191
North San Jose/Santa Clara	7360303120
North San Jose/Santa Clara	7360303141
North San Jose/Santa Clara	7360303261
North San Jose/Santa Clara	7360303251
North San Jose/Santa Clara	7360303273
North San Jose/Santa Clara	7360303272
North San Jose/Santa Clara	7360303291
North San Jose/Santa Clara	7360303280
North San Jose/Santa Clara	7360303201
North San Jose/Santa Clara	7360303163
North San Jose/Santa Clara	7360303164
North San Jose/Santa Clara	7360303162
North San Jose/Santa Clara	7360303252
North San Jose/Santa Clara	7360303263
North San Jose/Santa Clara	7360303303
North San Jose/Santa Clara	7360303311
North San Jose/Santa Clara	7360303312
Fremont	7360405370
Fremont	7360405421
Fremont	7360405360
Fremont	7360405415
Fremont	7360405792
Fremont	7360405793
Fremont	7360405414

Fremont	7360405422
Fremont	7360405411
Fremont	7360405412
Fremont	7360405413
Fremont	7360405791

Table 7. 2000 'Downtown' Census Tracts

Area	Tract
Walnut Creek	06013339000
Concord	06013327000
Concord	06013328000
Fremont	06001441503
Mountain View/Sunnyvale	06085504601
Mountain View/Sunnyvale	06085504700
Mountain View/Sunnyvale	06085504803
Mountain View/Sunnyvale	06085509102
Mountain View/Sunnyvale	06085509108
Mountain View/Sunnyvale	06085509109
Mountain View/Sunnyvale	06085509304
Mountain View/Sunnyvale	06085510801
North San Jose/Santa Clara	06085504602
North San Jose/Santa Clara	06085505001
North San Jose/Santa Clara	06085505005
North San Jose/Santa Clara	06085505006
North San Jose/Santa Clara	06085505100
North San Jose/Santa Clara	06085505202
North San Jose/Santa Clara	06085508704
Downtown Oakland	06001402800
Downtown Oakland	06001402900
Downtown Oakland	06001403000

Downtown Oakland	06001403100
Palo Alto/Menlo Park	06085511300
Palo Alto/Menlo Park	06085511400
Palo Alto/Menlo Park	06085511500
Palo Alto/Menlo Park	06085511604
Palo Alto/Menlo Park	06085511605
Palo Alto/Menlo Park	06085511703
Palo Alto/Menlo Park	06081611700
Palo Alto/Menlo Park	06081612500
Palo Alto/Menlo Park	06081612600
Palo Alto/Menlo Park	06081613000
Pleasanton	06001450603
Pleasanton	06001450722
Downtown San Francisco	06075010500
Downtown San Francisco	06075011700
Downtown San Francisco	06075017601
Downtown San Francisco	06075017602
Downtown San Francisco	06075017901
San Mateo / Redwood City	06081608004
San Mateo / Redwood City	06081609100
San Mateo / Redwood City	06081610202
San Mateo / Redwood City	06081610304
San Rafael	06041111000
San Rafael	06041112100
San Rafael	06041112200
San Ramon	06013345108
West Berkeley / Emeryville	06001422000
West Berkeley / Emeryville	06001425100

Note[6] Methodology for determining percentage of workers who commute by driving alone

The CTPP provides the number of workers who commute by driving alone, and the total number of employees, by TAZ in 1990, and tract in 2000. The figure was calculated by simply summing both totals across all TAZs/tracts in a downtown. See note five for more information.

Appendix B: Economic Development for People with Disabilities

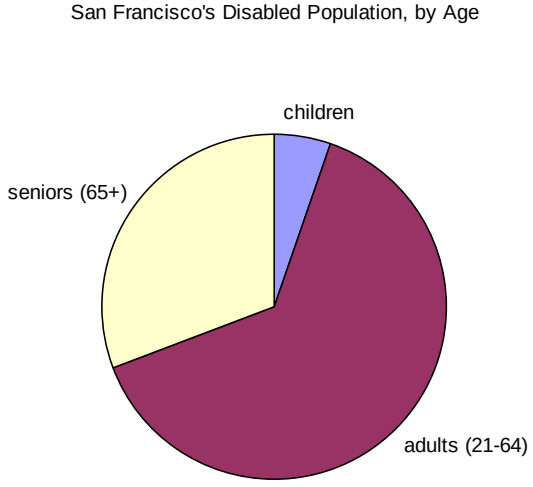
The capability of a city to enable people with disabilities to realize their full economic potential cuts across several economic foundations including human resources, quality of life, and physical infrastructure. It requires the ability to address communication and mobility concerns through infrastructure and to provide people with viable employment options through human resource adaptations and workforce development, ultimately producing a higher quality of life for them and others throughout the City. Proposition I directs San Francisco's economic strategy to explicitly focus on increasing employment opportunities for people with disabilities and other vulnerable populations. This portion of the report draws heavily on research conducted by former UC Berkeley, and current UCLA student Victor Pineda and his Spring 2006 report, *Toward Access and Opportunities: Economic Development of People with Disabilities in San Francisco*.

Prevalence of disability in San Francisco

Nationally, over 20% of the adult population has a disability that prevents or impedes them from working, caring for themselves, or making full use of their physical or mental capabilities. In San Francisco, roughly 150,000 people are disabled, approximately 19% of the population. While San Francisco is slightly below the national average, the disabled nevertheless constitute a significant portion of San Franciscans.

Physical impairment is likely to increases with age; however as the chart below indicates, the majority (64%) of San Francisco's disabled population are adults between the ages of 21 and 64.

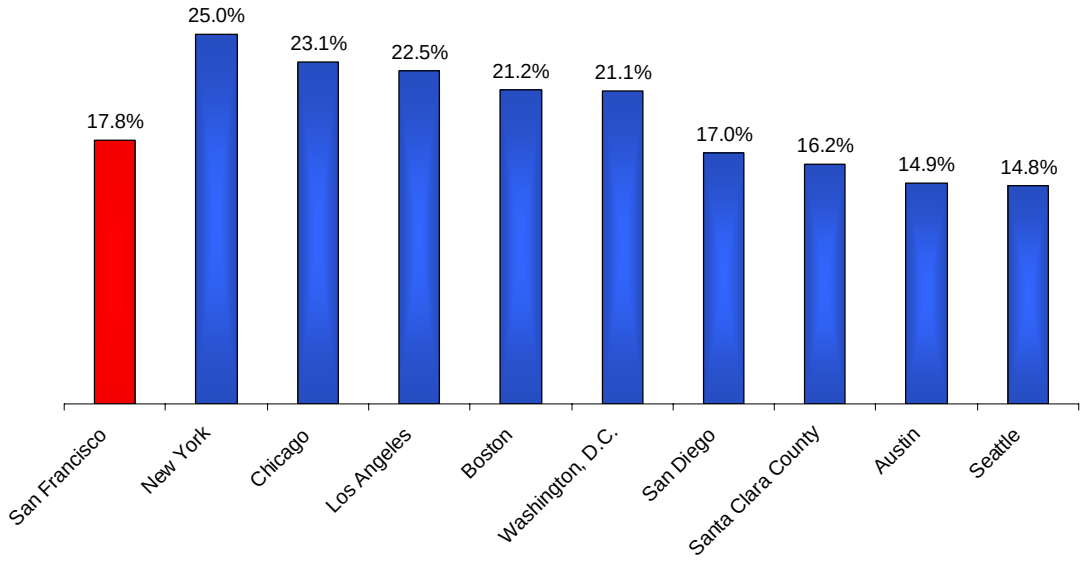
Figure 52. Age Composition of San Francisco's Disabled Population



Source: U.S. Census, 2000 SF-3 Series

This means that over 17% of San Francisco's working age adults have a disability. While this percentage is relatively low compared to some of its peer cities, it represents roughly 95,000 people in prime workforce participation age, as illustrated in the chart below.

Figure 53. Comparison of Working-Aged Disabled Population Across Peer Cities



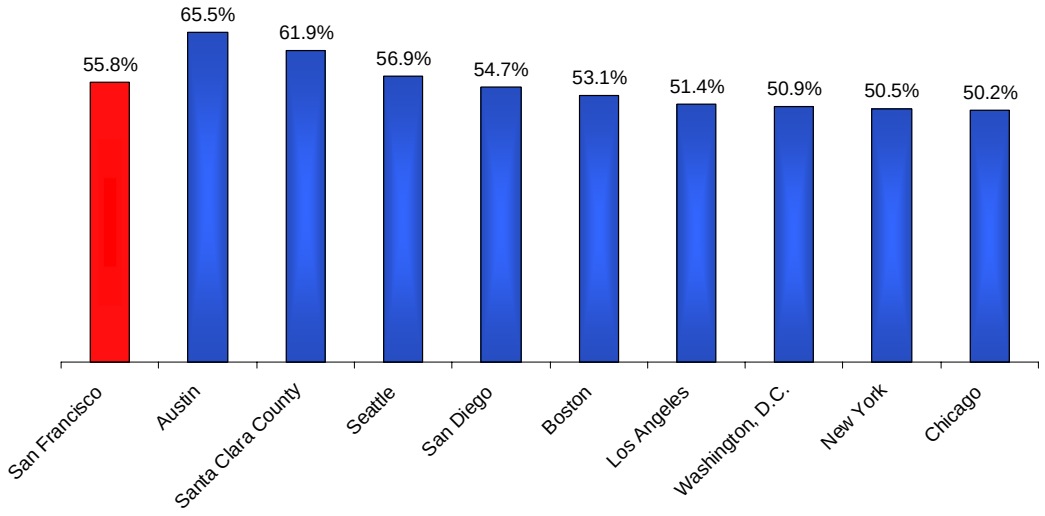
Source: U.S. Census, 2000 SF-3 Series

Economic development: Unemployment and Marginalization

People with disabilities experience some of the highest levels of poverty in the United States. According to the 1995 Current Population Survey, 39.7% of working-age persons with disabilities live in poverty. Furthermore, one third (34%) of adults with disabilities live in households with a total income of $15,000 or less.

Fifty-five percent of working-age San Franciscans with a disability were employed in 2000. This implies that approximately 42,000 were not employed. This figure represents a significant loss to the City's workforce. That said, San Francisco's level of labor force participation for adults with disabilities is relatively high compared to most of the other peer cities. As the graph below indicates, only Austin, Santa Clara County, and Seattle do a better job of employing the disabled than San Francisco.

Figure 54. Comparison of Employment Rate of the Disabled Population Across Peer Cities



Source: U.S. Census, 2000 SF-3 Series

While the majority of San Francisco's disabled are employed, as a population they earn less than the non-disabled. It has been estimated that in San Francisco, a person with a disability earns .80 cents to the dollar. This is considerably higher than places like Washington D.C. (at .60 cents to the dollar) but lower than Boston.

Working people with disabilities in San Francisco earn an average of $38,282 a year (annual average). The table below lists occupations that employ more than 1% of the disabled population and pay above the average. These occupations represent the best employment options for the disabled population in San Francisco.

Table 8. Above Average Occupations for People With Disabilities

Occupation	*Average Annual Salary, 2004*
Accountants and Auditors (080)	*$57,160*
Elementary and Middle School Teachers (231)	*$46,598*
Managers, All Other (043)	*$82,820*
Registered Nurses (313)	*$55,680*
Designers (263)	*$38,624*

Source: PUMS Data 5% 2000 and Bureau of Labor Statistics

A Cycle of Marginalization and Poverty

Many disabled people must deal with more than the physical and mental symptoms of their disability. Because of physical, social and cultural barriers in society generally, and in the area they live they are often prevented from fully and equally participating in social, economic, political and cultural activities. Their congenital impairment thus becomes a debilitating disability because of society's inability to interface with the impairment. The resulting marginalization experienced by the disabled eventually creates a handicap as a person with an impairment is conceived to be dependent. This marginalization and resulting dependency of a disabled person will ultimately affect not only their available opportunities, status, and quality of life, but that of the whole family, often leading directly to poverty. With entrance into poverty, a status associated with a greater occurrence of disability, because of increases in risk factors such as communicable diseases, poor nutrition, and hazardous living and working conditions, a cycle of poverty and disability is initiated. This cycle of exclusion perpetuates the marginalized and dependant status of the disabled.

The lack of access to buildings, street furniture, and public spaces, as well as a lack of accessible infrastructure including telecommunications systems and information technologies create numerous physical, social, and informational barriers for people with disabilities. The built physical environment assumes full mobility and therefore limits the disabled population's access to social interactions and economic engagement. A physical situation restricting the participation of those with disabilities leads to a society inexperienced with and uninformed about the issues and capabilities of this population. Instead, mainstream society's actions are based on stereotypes and assumptions. Lastly, institutional barriers result from the unreasonable application of otherwise reasonable rules or policies that functionally bar people with disabilities from accessing the public, economic, and social spheres. The lack of accommodations to aid the disabled population and simple adaptations within the "mainstream" world, led to a situation in which people with disabilities have been institutionalized, despite its higher cost to society. The social approach to disability recognizes that it is the disabling environment and hostile social attitudes that creates disability more than any underlying physical impairment.

Goals to Break the Cycle

New theories around access and inclusion are reframing disability. Rather than defining disability as simply a medical defect, recent thought has acknowledged that both disability and the response taken to disabilities are social responsibilities. Under this definition narrow planning, combined with a lack of accessible physical accommodations, and community based services, leave people with disabilities shut out an unable to contribute. Steps have been taken in both planning and policymaking fields to mainstream the development of universally accessible designed cities. Access, control, and choice have become key topics to explore. Plans that focus on precisely these issues have the best chance to allow an inclusive environment that can increase the economic potential for people with disabilities and contribute to the overall development of San Francisco.

Key goals involve:

- Improving access to education, employment, and human development options for people with disabilities;
- Increasing mobility by way of physical accommodations;
- Supporting the ability for the disabled to organize, self-advocate, and improve their visibility in society;
- Improving access to health, prevention, and rehabilitation services;

Solutions

Two critical concepts have received recent attention as better means for cities to provide for their disabled population. Universal design and independent living both show promise as strategies to increase access for those with a disability. Universal design addresses the physical barriers disabled populations face by providing a new approach to the design of products, services and environments to be as usable as possible by a wide variety of people regardless of age, ability, or situation. It provides an opportunity to create a more inclusive society and its importance has been recognized by governments, businesses, and industry that have adopted universal design building techniques.

The concept of independent living, while related to universal design, goes a step further. Independent living involves access, control, and choice in self-directed care. That said, such autonomy is impossible to achieve without broad support from the community rather than public institutions exclusively. Independent living requires that the majority of local businesses, public space, and mainstream services be accessible. While this goal may seem difficult to achieve, it is a critical aspect of creating true individual freedom for those with a disability.

How is San Francisco doing?

At present there are few if any studies at the local level on the economic development impacts of people with disabilities in the United States. Impacts have been measured at the national level to some extent, but due to insufficient fine-grained data, it has thus far been impossible at the city or county level. Data availability aside, it is extremely difficult to quantify the inputs and outputs to economic development in regards to people with disabilities. The number of ramps or elevators does not tell us much about the productivity of people with disabilities in the work place. More telling might be the economic participation and social inclusion of people with disabilities, as well as their prospects for economic empowerment and development. A key component to this access is the amount of resources committed to improving access both physical and social.

The City of San Francisco spends more on social programs than most cities in the US. It also spends tax revenue in compliance with Section 504 of the 1973 Rehabilitation Act and the ADA. These laws designate anti-discriminatory design as a civic right, meaning that taxes cannot be used in a manner that discriminates against people with disabilities. The city has a history of accepting difference and holds a proud history of activism and progressive policies. That said, Table 7 describes the efficiency with which the city has been able to turn investment and program into performance and provide improved service and infrastructure.

Table 9. Compliance Overview Table

(C=Compliant, SC=Somewhat Compliant, BC=Barely Compliant, NC=Not Compliant)

Element	What the ADA Requires	What San Francisco Has	Compliance Status
ADA Coordinator	Every department with >50 employees must designate an ADA Coordinator.	City has a Citywide ADA Coordinator; 46/57 (81%) of departments have a departmental ADA Coordinator.	SC
ADA Rights Notice	Public entities must notify the public of their rights under the ADA.	No standard notice for the entire City. 59% of programs notify public re: right to file grievances, 21% notify re: right to reasonable modifications, 35% notify re: right to auxiliary aids and services.	BC
Reasonable Modifications Policy	Public entity must reasonably modify its policies, practices or procedures to avoid discrimination on the basis of disability.	No Citywide policy. 49% of programs report modifying policies, procedures & practices. Many good examples of reasonable modifications reported.	SC
Effective Communication Policy	Public entity's communications must be as effective in reaching people with disabilities as they are in reaching others.	No Citywide policy. Good but inconsistent efforts at effective communication.	SC
Auxiliary Aids and Services	Public entity must use auxiliary aids and services whenever they are necessary for ensuring equally effective communication, and must give primary consideration to requested aid or service.	No Citywide policy. Some programs integrate aids and services well, many poorly. Emphasis on aids & services for public meetings (as opposed to regular services). "Primary consideration" not widely/well-understood.	SC
Telephone Communication Equipment	Where public entity communicates with the public by telephone, it must also use a TTY or other equally effective system for communicating with people who have hearing or speech impairments.	No Citywide policy. No universal training. 49% of programs have *no known means* of communicating with people who have hearing or speech impairments.	NC
ADA Grievance Procedure	Public entity must have procedures for prompt and equitable resolution of complaints alleging violations of the ADA.	No Citywide policy. 54% of programs have no ADA grievance procedure. 54% of people investigating ADA grievances receive no training in ADA requirements.	BC
Access Criteria for Contracted Services	Public entity must ensure that agencies/ organizations that provide service on its behalf are not discriminating against people with disabilities.	Access criteria not standard element in RFPs or boilerplate contracts. Some programs considering organizational experience serving people with disabilities. No ADA training specifically for program officers/contract monitors.	NC
Access Criteria for	Public entity must ensure that	Access criteria inconsistently considered.	BC

Equipment Purchases	equipment it purchases is as effective for people with disabilities as for others.	Not standard element in RFQ's or review process.	

Source: V. Pineda, UC Berkeley

Despite the many programs in San Francisco that on an individual basis champion the issues of the disabled, few citywide policies exist. It must be remembered that compared to other peer cities, San Francisco does well in employing its disabled population, however the rate is just over 55% leaving a large portion of the disabled unemployed. San Francisco has an opportunity to build on its assets, according to the outreach conducted by Mr. Pineda, 56% of City Managers expressed interest in more training programs that educate about working with people with disabilities and more resources for alternative formats and auxiliary aids. Other recommendations consist of working with existing programs just as Disability 101, Workability Program CHIIP, California State Vocational Rehabilitation and Small Business partnerships to increase integration in the workforce. Lastly, outreach that continues to breakdown stereotypes will increase employment and equal opportunity for San Francisco's disabled population.

Appendix C: Goals and Objectives Community Survey Details

In Spring 2006, the Mayor's Office of Economic and Workforce Development and its team of consultants prepared an online community survey to gauge public opinion about important goals and objectives for the San Francisco Economic Strategy. The survey received 493 responses from the across the City. Table 8 lists the complete results for the question regarding strategy goals, and Table 9 breaks out the responses by neighborhood income level.

Table 10. Strategy Goal Opinions in Order of Popularity (1=Lowest, 5=Highest)

Goal	Average Score out of 5
Retaining existing businesses in the City	4.36
Creating more jobs and new employment opportunities	4.34
Investing in infrastructure to enhance residents' and workers' quality of life.	4.27
Ensuring stability in the City's economy	4.24
Encouraging new industries to grow in the City	4.19
Making it easier to operate a small business	4.07
Investing in education, training, and technologies to better prepare San Francisco workers to succeed in today's economy	4.02
Creating job opportunities for youth in distressed neighborhoods	3.99
Making it easier to start a new business	3.88
Developing better jobs for low-income residents of the city to reduce poverty	3.85
Making vibrant, active places	3.83
Reducing the overall unemployment rate	3.8
Preserving industrial businesses and jobs	3.45
Reducing income inequality	3.41
Creating more tax revenue to help pay for city services	3.21
Raising property values	2.49

Table 11. Strategy Goal Opinions by Income Level of Neighborhood

Neighborhood Income Category	Goal	Average Score out of 5
Total	Creating job opportunities for youth in distressed neighborhoods	3.99
Low	Creating job opportunities for youth in distressed neighborhoods	3.97

Middle	Creating job opportunities for youth in distressed neighborhoods	4.04
High	Creating job opportunities for youth in distressed neighborhoods	3.94
Total	Creating more jobs and new employment opportunities	4.34
Low	Creating more jobs and new employment opportunities	4.26
Middle	Creating more jobs and new employment opportunities	4.37
High	Creating more jobs and new employment opportunities	4.36
Total	Creating more tax revenue to help pay for city services	3.21
Low	Creating more tax revenue to help pay for city services	3.17
Middle	Creating more tax revenue to help pay for city services	3.29
High	Creating more tax revenue to help pay for city services	3.14
Total	Developing better jobs for low-income residents of the city to reduce poverty	3.85
Low	Developing better jobs for low-income residents of the city to reduce poverty	3.93
Middle	Developing better jobs for low-income residents of the city to reduce poverty	3.82
High	Developing better jobs for low-income residents of the city to reduce poverty	3.81
Total	Encouraging new industries to grow in the City	4.19
Low	Encouraging new industries to grow in the City	4.12
Middle	Encouraging new industries to grow in the City	4.26
High	Encouraging new industries to grow in the City	4.17
Total	Ensuring stability in the City's economy	4.24
Low	Ensuring stability in the City's economy	4.19
Middle	Ensuring stability in the City's economy	4.23
High	Ensuring stability in the City's economy	4.29

Total	Investing in education, training, and technologies to better prepare San Francisco workers to succeed in today's economy	4.02
Low	Investing in education, training, and technologies to better prepare San Francisco workers to succeed in today's economy	4.04
Middle	Investing in education, training, and technologies to better prepare San Francisco workers to succeed in today's economy	4.03
High	Investing in education, training, and technologies to better prepare San Francisco workers to succeed in today's economy	3.98
Total	Investing in infrastructure to enhance residents' and workers' quality of life.	4.27
Low	Investing in infrastructure to enhance residents' and workers' quality of life.	4.25
Middle	Investing in infrastructure to enhance residents' and workers' quality of life.	4.28
High	Investing in infrastructure to enhance residents' and workers' quality of life.	4.28
Total	Making it easier to operate a small business	4.07
Low	Making it easier to operate a small business	4.04
Middle	Making it easier to operate a small business	4.08
High	Making it easier to operate a small business	4.08
Total	Making it easier to start a new business	3.88
Low	Making it easier to start a new business	3.84
Middle	Making it easier to start a new business	3.89
High	Making it easier to start a new business	3.91
Total	Making vibrant, active places	3.83
Low	Making vibrant, active places	3.87
Middle	Making vibrant, active places	3.83
High	Making vibrant, active places	3.79

Total	Preserving industrial businesses and jobs	3.45
Low	Preserving industrial businesses and jobs	3.40
Middle	Preserving industrial businesses and jobs	3.59
High	Preserving industrial businesses and jobs	3.33
Total	Raising property values	2.49
Low	Raising property values	2.59
Middle	Raising property values	2.38
High	Raising property values	2.53
Total	Reducing income inequality	3.41
Low	Reducing income inequality	3.44
Middle	Reducing income inequality	3.54
High	Reducing income inequality	3.22
Total	Reducing the overall unemployment rate	3.80
Low	Reducing the overall unemployment rate	3.74
Middle	Reducing the overall unemployment rate	3.90
High	Reducing the overall unemployment rate	3.73
Total	Retaining existing businesses in the City	4.36
Low	Retaining existing businesses in the City	4.29
Middle	Retaining existing businesses in the City	4.38
High	Retaining existing businesses in the City	4.40

Appendix D: Industry Impact Analysis

In determining the target industries for the Economic Strategy, we focused only on industries with 500 or more employees in San Francisco in 200X. These industries were analyzed across three indicators and ranked as high, medium or low. The indicators are an industry's ability to, 1), create high multipliers throughout the economy; 2) provide an above average wage to residents without a college degree; and 3) generate significant fiscal impacts.

Industries were defined by 3-digit NAICS codes. The secondary/multiplier impacts were analyzed using IMPLAN data and software. The labor market impact was calculated using Bureau of Labor Statistics (BLS) and Census data. And data on each industry's fiscal impact was provided by the Controller's Office and EPS.

For the purpose of this analysis all three impacts were combined and every three digit NAICS industry was ranked on three measures:

- Total Job Impact: The strength of the industry's Multiplier Effect.
- Workforce Impact: The percentage of the industry's workforce with less than a bachelor's degree, in above average wage jobs.
- Net fiscal impact per job: The level of tax's contributed in relation to services required for the industry.

For each measure, the top third of industries were classified as "high", the second third as "medium", and the bottom third as "low".

The results of this analysis are contained in the following tables.

Table 10 includes the industries traditionally thought of as blue collar; construction, manufacturing, wholesale and transportation. These industries have extremely high impacts. They provide very high Workforce job impacts, meaning they pay above average wages for San Francisco residents who do not have a college degree. In fact, compared to all of the other industry segments analyzed, these industries had the highest percentage of these above average wage jobs. In terms of total job impact, these industries tend to show a medium to high multiplier effect gained through their jobs. As would be expected from an industry that builds and transports for the wider economy, growth within the general economy leads to strong multipliers within these industries as well. In terms of fiscal impact, these industries tend towards the low side; however they provide such high impacts in offering middle-wage jobs to the portion of the population without advanced education—an area that has shown significant weakness in San Francisco—that this factor is deemed less important. Overall, these industries offer some of the best jobs for middle class residents.

Table 12. Combined Impacts: Construction, Manufacturing, Wholesaling, Transportation

Industry	Total Growth Impact	Middle Class Job Impact	Fiscal Impact	Combined (Out of 9)

Construction of Buildings	MEDIUM	HIGH	MEDIUM	7
Heavy and Civil Engineering Construction	MEDIUM	HIGH	MEDIUM	7
Specialty Trade Contractors	MEDIUM	HIGH	MEDIUM	7
Food Manufacturing	HIGH	MEDIUM	LOW	6
Apparel Manufacturing	MEDIUM	LOW	LOW	4
Printing and Related Support Activities	LOW	HIGH	MEDIUM	6
Computer and Electronic Product Manufacturing	HIGH	HIGH	MEDIUM	8
Furniture and Related Product Manufacturing	LOW	MEDIUM	MEDIUM	5
Merchant Wholesalers, Durable Goods	HIGH	HIGH	MEDIUM	8
Merchant Wholesalers, Nondurable Goods	HIGH	MEDIUM	LOW	6
Wholesale Electronic Markets and Agents and Brokers	HIGH	HIGH	LOW	7
Truck Transportation	MEDIUM	HIGH	LOW	6
Transit and Ground Passenger Transportation	LOW	MEDIUM	LOW	4
Support Activities for Transportation	MEDIUM	HIGH	LOW	6
Couriers and Messengers	LOW	LOW	LOW	3
Warehousing and Storage	LOW	HIGH	LOW	5

Source: ICF International

Table 11 analyzes the combined impacts for San Francisco's retail and trade industries. In contrast to construction and transportation, these industries have a generally lower overall impact. While most if not all provide a significant amount of tax revenue for the city, and therefore a have high fiscal impact, many have weak workforce impacts due to low wages, and low multipliers due to a high degree of income leakage outside of the city. Apart from the motor vehicle and large appliance industries, retail and trade does not provide the type of jobs established as a goal of the City's Economic Strategy.

Table 13. Combined Impacts: Retail Trade

Industry	Total Growth Impact	Middle Income Job Impact	Fiscal Impact	Combined (Out of 9)
Motor Vehicle and Parts Dealers	MEDIUM	HIGH	HIGH	8
Furniture and Home Furnishings Stores	LOW	LOW	HIGH	5
Electronics and Appliance Stores	MEDIUM	MEDIUM	HIGH	7
Building Material and Garden Equipment and Supplies Dealers	MEDIUM	LOW	HIGH	6
Food and Beverage Stores	LOW	LOW	MEDIUM	4

Health and Personal Care Stores	LOW	LOW	HIGH	5
Gasoline Stations	MEDIUM	LOW	HIGH	6
Clothing and Clothing Accessories Stores	LOW	LOW	HIGH	5
Sporting Goods, Hobby, Book, and Music Stores	LOW	LOW	MEDIUM	4
General Merchandise Stores	LOW	LOW	HIGH	5
Miscellaneous Store Retailers	LOW	LOW	HIGH	5
Nonstore Retailers	LOW	MEDIUM	MEDIUM	5

Source: ICF International

Table 12 displays the impact of the information and advanced services industries. These occupations provide very high impacts for all three indicators. Every industry has a high total growth impact indicating that it stimulates follow-on economic growth. Most knowledge industries also have a high capacity to create jobs that offer above average pay for those residents who do not have a four-year degree. The higher wages translates into a higher payroll tax and therefore these industries provide a significant fiscal impact for the City as well.

Table 14. Combined Impacts: Information

Industry	Total Growth Impact	Middle Income Job Impact	Fiscal Impact	Combined (Out of 9)
Publishing Industries (except Internet)	HIGH	MEDIUM	MEDIUM	7
Motion Picture and Sound Recording Industries	HIGH	LOW	LOW	5
Broadcasting (except Internet)	HIGH	HIGH	MEDIUM	8
Internet Publishing and Broadcasting	HIGH	MEDIUM	HIGH	8
Telecommunications	HIGH	HIGH	MEDIUM	8
Internet Service Providers, Web Search Portals, and Data Processing Service	HIGH	MEDIUM	HIGH	8
Credit Intermediation and Related Activities	HIGH	MEDIUM	HIGH	8
Securities, Commodity Contracts, and Other Financial Investments and Related Activities	HIGH	MEDIUM	HIGH	8
Insurance Carriers and Related Activities	HIGH	HIGH	HIGH	9
Funds, Trusts, and Other Financial Vehicles	HIGH	MEDIUM	HIGH	8
Real Estate	HIGH	HIGH	MEDIUM	8
Rental and Leasing Services	HIGH	MEDIUM	HIGH	8

Source: ICF International

The financial, professional, business and environmental services industries (Table 13) have similar characteristics to the information and technology services explained above. With high and medium impacts across most indicators, these industries are well-linked to the rest of the economy, pay above average wages even for employees with less than a college education, and provide the City with high revenue from hefty payroll taxes (again, due to high salaries).

Table 15. Combined Impacts: Financial, Professional, Business, Environmental

Industry	Total Growth Impact	Middle Income Job Impact	Fiscal Impact	Combined (Out of 9)
Credit Intermediation and Related Activities	HIGH	MEDIUM	HIGH	8
Securities, Commodity Contracts, and Other Financial Investments and Related Activities	HIGH	MEDIUM	HIGH	8
Insurance Carriers and Related Activities	HIGH	HIGH	HIGH	9
Funds, Trusts, and Other Financial Vehicles	HIGH	MEDIUM	HIGH	8
Real Estate	HIGH	HIGH	MEDIUM	8
Rental and Leasing Services	HIGH	MEDIUM	HIGH	8
Professional, Scientific, and Technical Services	MEDIUM	MEDIUM	HIGH	7
Management of Companies and Enterprises	MEDIUM	MEDIUM	HIGH	7
Administrative and Support Services	MEDIUM	MEDIUM	MEDIUM	6
Waste Management and Remediation Services	HIGH	HIGH	LOW	7

Source: ICF International

The industries detailed in Table 14 represent the remainder of the service sector, education, health, hospitality, social and personal services. These industries are generally low impact, largely because they do not pay high salaries and do not provide high multipliers throughout the economy. Many of these services are in the non-profit sector and therefore as tax-exempt do not provide significant tax revenue for City. The exception, are the tourism-related services, particularly those that cater to the high-end tourist (performing arts and accommodation) both of which provide a good fiscal impact and linkages to other jobs throughout the economy. Hospitals and repair & maintenance services stand out as strong local-serving service industries with across the board higher salaries, better multipliers, and stronger fiscal impact than most of the industries within this sector.

Table 16. Combined Impacts: Education, Health, Hospitality, and Other Services

Industry	Total Growth Impact	Middle Income Job Impact	Fiscal Impact	Combined (Out of 9)
Educational Services	LOW	LOW	LOW	3
Ambulatory Health Care Services	MEDIUM	MEDIUM	LOW	5
Hospitals	HIGH	HIGH	LOW	7
Nursing and Residential Care Facilities	LOW	MEDIUM	LOW	4
Social Assistance	LOW	LOW	LOW	3
Performing Arts, Spectator Sports, and Related Industries	MEDIUM	MEDIUM	MEDIUM	6
Museums, Historical Sites, and Similar Institutions	HIGH	LOW	LOW	5
Amusement, Gambling, and Recreation Industries	LOW	LOW	LOW	3
Accommodation	MEDIUM	LOW	HIGH	6
Food Services and Drinking Places	LOW	LOW	MEDIUM	4
Repair and Maintenance	MEDIUM	HIGH	MEDIUM	7
Personal and Laundry Services	LOW	LOW	MEDIUM	4

Source: ICF International

Appendix E: Occupational Analysis of the Priority Workforce Industries

To support a more industry-focused approach to workforce development in San Francisco, in line with the goals and recommendations in Chapter 5, six industries were targeted across the four major economic sectors of the San Francisco economy that were profiled in Chapter 3. These industries and the sectors they are located in are:

- Knowledge Sector:
  - Information Technology/Digital Media
  - Biotechnology
- Physical Infrastructure Sector:
  - Transportation
  - Construction
- Experience Sector:
  - Retail/Accommodations
- Human Infrastructure Sector:
  - Health Care

The sections that follow describe each of these industries in San Francisco in detail, and the basis for their inclusion as targeted industries for workforce development. The industry's current size, in job terms, and recent job trends and projected future growth will be profiled. The jobs each industry offers will be assessed in detail in terms of the educational attainment they typically require, and their average annual wage, in the San Francisco labor market.

After this review, the demographics of the major occupations in these six industries will be analyzed, in terms of race, gender, age, language and linguistic isolation, and disability.

Knowledge Sector: Information Technology/Digital Media

For the purposes of this analysis, the Information Technology/Digital Media industry is defined as the full range of software, IT services, radio/TV broadcasting, film, telecommunications, and print media industries in San Francisco. This group of industries increasingly constitutes an industry cluster as traditional media moves into digital methods of production and distribution, and as media/communications becomes an increasingly important area of growth for the software industry.

In terms of the North American Industrial Classification (NAICS) system, the digital media/IT industry was defined for the purposes of this analysis as the following:

Table 17: NAICS Definition of the Digital Media/IT Industry

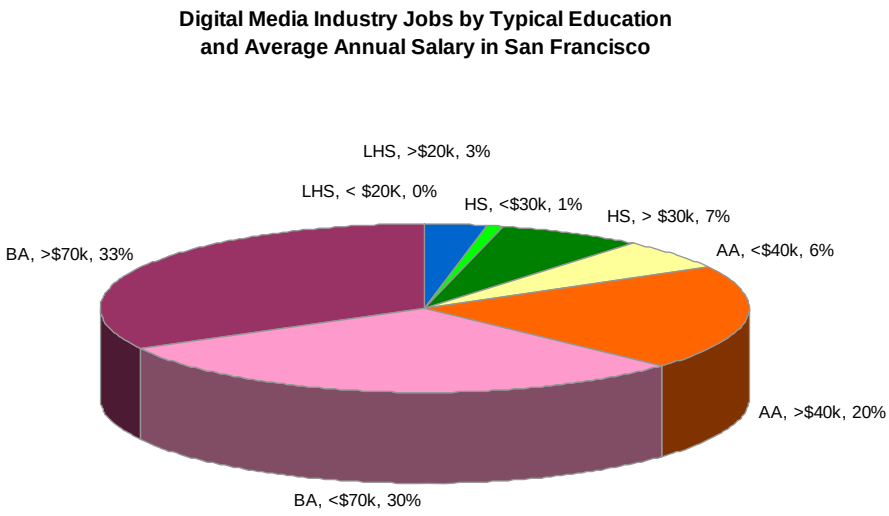
NAICS	*Industry*
515100	*Radio and Television Broadcasting*
518200	*Data Processing, Hosting, and Related Services*
518100	*Internet Service Providers and Web Search Portals*
517900	*Other Telecommunications*
517500	*Cable and Other Program Distribution*
517400	*Satellite Telecommunications*
517200	*Wireless Telecommunications Carriers (except Satellite)*
517100	*Wired Telecommunications Carriers*
515200	*Cable and Other Subscription Programming*
512200	*Sound Recording Industries*
512100	*Motion Picture and Video Industries*
541500	*Computer Systems Design and Related Services*
511100	*Newspaper, Periodical, Book, and Directory Publishers*
511200	*Software Publishers*
516100	*Internet Publishing and Broadcasting*

NAICS is important for local industry analysis because official data sources for employment by industry are released for employer firms classified by their NAICS codes. Using these NAICS codes, in San Francisco in 2005, there were 24,520 jobs in digital media/IT. While this number had declined significantly since the dot com boom of the late 1990s, the 2005 number still represents a healthy 2.2% growth above 2004. Moreover, the California Employment Development Department (EDD) projects a growth of 2,600 new jobs in the IT services industry, and another 1,000 in software and media, in the San Francisco-San Mateo-Marin metropolitan area. Given the amount of venture capital being invested in digital media presently however, these numbers could easily be low. San Francisco emerged as one of the centers of the Internet industry during the 1990s, and retained that leading position despite sharp job declines after the 2001 bust.

These past and projected growth trends, along with the fact that digital media is a high-paying, youth-oriented industry with chronic skill shortages during expansionary periods, suggests it is an ideal target industry within the knowledge sector.

In terms of the jobs that it offers, the industry is some more comprised of workers with a four-year university degree than the San Francisco workforce as a whole. About 37% of the jobs in digital media/IT are held by workers without a four-year degree, while about 49% of the San Francisco workforce does not possess such a credential. However, near all of that 37% are in jobs that pay an above-average salary for that level of education, as Figure 55 below indicates.

Figure 55: Digital Media Jobs by Education and Income



The tables below indicate the specific major occupations within the industry cluster that offer above-average paying employment for three types of workers without a four-year degree: those with less than a high school diploma, those with a high school diploma but no college, and those with some college, but not a four-year degree. It will be recalled from earlier in the chapter that the average salary for jobs typically held by workers without a high school diploma in San Francisco is approximately $20,000; for workers with high school only, approximately $30,000, and for workers with some college, approximately $40,000. These cut-off figures are used in the analysis that follows.

A occupation is considered "major", and included in the tables below, when over 0.5% of total industry employment is accounted for by workers in that occupation and in that educational attainment category. In other words, referencing Table 18 below, 1.1% of the total workforce in the digital media/IT industry cluster consists of radio and telecommunications equipment installers and repairers with some college. While the 0.5% cut-off may seem like a small one, it must be remembered that the Standard Occupational Classification system used in this analysis is a very detailed one, with over 800 different occupations. Note than an occupation can appear in more than one table, if many people with different levels of education work in that occupation.

Table 18: Major Above-Average Paying Occupations for Workers with Some College, Digital Media/IT Industry

Occupation	*Percent of all workers in the industry in this occupation with some college*
Radio and Telecommunications Equipment Installers and Repairers (702) SOC 49-2020	*1.1%*
Managers, All Other (043) SOC 11-9199	*1.0%*

Sales Representatives, Services, All Other (484) SOC 41-3099	*1.0%*
Network Systems and Data Communications Analysts (111) SOC 15-1081	*1.0%*
Secretaries and Administrative Assistants (570) SOC 43-6010	*0.8%*
Marketing and Sales Managers (005) SOC 11-2020	*0.8%*
Editors (283) SOC 27-3041	*0.7%*
Telecommunications Line Installers and Repairers (742) SOC 49-9052	*0.6%*
First-Line Supervisors/Managers of Non-Retail Sales Workers (471) SOC 41-1012	*0.6%*
Computer Support Specialists (104) SOC 15-1041	*0.6%*
Broadcast and Sound Engineering Technicians and Radio Operators and Other Media and Communication Equipment Workers (290	*0.6%*
First-Line Supervisors/Managers of Office and Administrative Support Workers (500) SOC 43-1011	*0.6%*
Producers and Directors (271) SOC 27-2012	*0.6%*
Computer Software Engineers (102) SOC 15-1030	*0.5%*

Table 19: Major Above-Average Paying Occupations for Workers with High School Only, Digital Media/IT Industry

Occupation	*Percent of all workers in the industry in this occupation with high school only*
Customer Service Representatives (524) SOC 43-4051	*0.7%*
Radio and Telecommunications Equipment Installers and Repairers (702) SOC 49-2020	*0.5%*

There are no single occupations in the digital media/IT industry where workers with less than a high school diploma account for more than 0.5% of the industry total employment.

Knowledge Sector: Biotechnology

The other knowledge sector industry targeted for specific workforce planning is biotechnology. Like digital media, biotechnology is an enabling technology that is at the core of a potential explosion of new innovations across the fields of bio-medicine, agriculture, and industrial supplies and chemicals. In the same way that further developing the digital media industry is building on a longstanding strength of the region and the City in information technology and traditional media, biotechnology is built upon recombinant DNA techniques that were invented at UCSF and Stanford. The Bay Area is the leading biotechnology region in the country, if not the world, in terms of venture capital investment, research investment, and private sector jobs.

Until the development of Mission Bay, however, San Francisco has lacked the adequate space to capitalize on the region's biotechnology opportunity. For this industry, therefore, San Francisco's emerging will be combined with San Mateo's, which is heavily concentrated in South San Francisco and is easily accessible to workers in the City.

The NAICS system for classifying industries is notoriously poor at capturing biotechnology, mainly because it is an enabling technology that is comprises part of many larger industries, such as pharmaceuticals, industrial chemicals, agricultural oils, and household products like soap. In addition, the same biotech company would be classified as an R&D service company in its early research stage, but then re-classified as whatever it manufactured once its product matured to that stage.

Given the Bay Area's focus on medical biotechnology, the best NAICS definitions for biotechnology are the following, which have been used in this analysis:

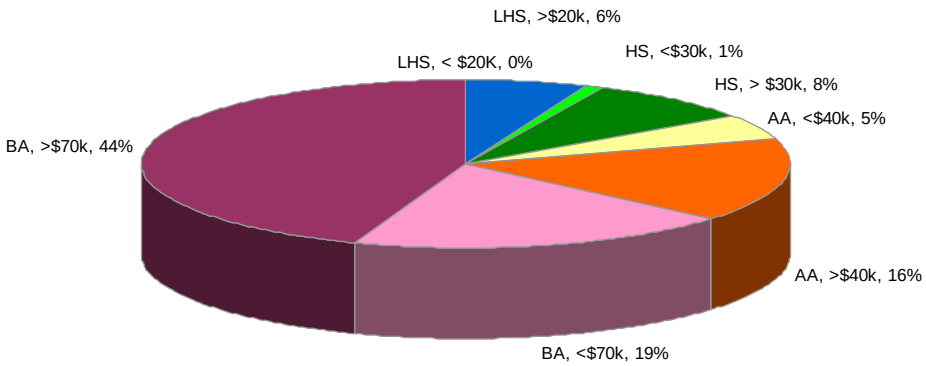
NAICS	*Industry*
325400	*Pharmaceutical and Medicine Manufacturing*
541700	*Scientific Research and Development Services*

Using this definition, there were 19,147 biotechnology jobs in San Francisco and San Mateo counties in 2005. The annual increase from 2004 was 1,140, for a 6.3% increase in one year. Like digital media, biotechnology is a high technology industry that suffered a serious downturn during the dot-com boom; however, the most recent growth numbers suggest a healthy recovery is on the way. EDD projects a net growth of 5,000 jobs in the MSA between 2002-2012, and again, this may be an underestimate given the trends we are currently witnessing.

Like digital media/IT, the biotechnology workforce is somewhat more composed of workers with a four-year degree, or a graduate education, than the San Francisco workforce as a whole. However, there are again a significant number of quality jobs in biotechnology available to workers with less than a four-year degree, as Figure 56 indicates.

Figure 56: Biotechnology Jobs by Education and Income

Biotechnology Industry Jobs by Typical Education and Average Annual Salary in San Francisco



The specific above-average-paying occupations open to biotechnology workers without a four-year degree are outlined in the tables below:

Table 20: Major Above-Average Paying Occupations for Workers with Some College, Biotechnology Industry

Occupation	*Percent of all workers in the industry in this occupation with some college*
Managers, All Other (043) SOC 11-9199	*2.0%*
Chemical Technicians (192) SOC 19-4031	*1.3%*
Secretaries and Administrative Assistants (570) SOC 43-6010	*1.2%*
Sales Representatives, Wholesale and Manufacturing (485) SOC 41-4010	*1.0%*
First-Line Supervisors/Managers of Production and Operating Workers (770) SOC 51-1011	*0.9%*
Agricultural and Food Science Technicians (190) SOC 19-4011	*0.8%*
Miscellaneous Life, Physical, and Social Science Technicians, Including Social Science Research Assistants and Nuclear T	*0.6%*
Computer Support Specialists (104) SOC 15-1041	*0.5%*
Engineering Technicians, Except Drafters (155) SOC 17-3020	*0.5%*

Table 21: Major Above-Average Paying Occupations for Workers with High School Only, Biotechnology Industry

Occupation	*Percent of all workers in the industry in this*

	occupation with high school only
Chemical Technicians (192) SOC 19-4031	*2.1%*
First-Line Supervisors/Managers of Production and Operating Workers (770) SOC 51-1011	*0.6%*

Table 22: Major Above-Average Paying Occupations for Workers with Less Than High School, Biotechnology Industry

Occupation	*Percent of all workers in the industry in this occupation with less than high school*
Other Production Workers, Including Semiconductor Processors and Cooling and Freezing Equipment Operators (896) SOC 51-9	*0.8%*
First-Line Supervisors/Managers of Production and Operating Workers (770) SOC 51-1011	*0.6%*
Crushing, Grinding, Polishing, Mixing, and Blending Workers (865) SOC 51-9020	*0.5%*

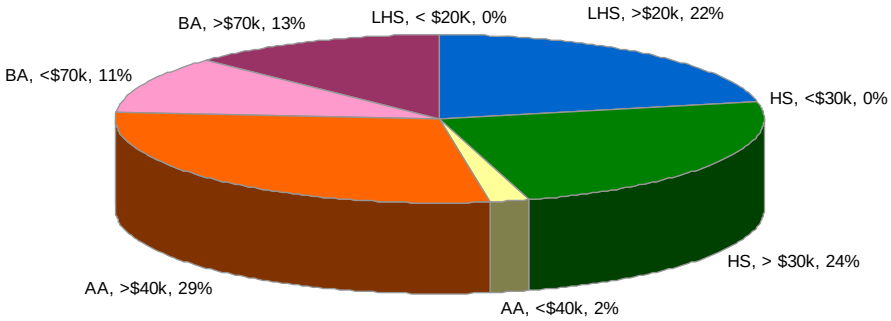
Physical Infrastructure Sector: Construction

Unlike most industries in San Francisco's physical infrastructure sector, the Construction industry has added jobs over the past decade, and is perhaps the most significant source of middle-income jobs in San Francisco for workers with limited education. However, the industry actually lost jobs between 2004 and 2005 in San Francisco, dropping from 16,897 to 16,248. Over the 2002-2012 period, however, EDD projects the growth of 2,300 new jobs in the San Francisco MSA, and significant replacement potential, as retiring workers need to be replaced.

Figure 57 below confirms that the construction industry is a major source of quality job opportunities for workers at all levels of education; 75% of all the jobs in the industry are above-average paying jobs for workers without a four-year degree.

Figure 57: Construction Jobs by Education and Income

Construction Industry Jobs by Typical Education and Average Annual Salary in San Francisco



The specific major occupations are listed in the tables below.

Table 23: Major Above-Average Paying Occupations for Workers with Some College, Construction Industry

Occupation	*Percent of all workers in the industry in this occupation with some college*
Carpenters (623) SOC 47-2031	*4.5%*
First-Line Supervisors/Managers of Construction Trades and Extraction Workers (620) SOC 47-1011	*3.9%*
Electricians (635) SOC 47-2111	*3.4%*
Construction Managers (022) SOC 11-9021	*3.3%*
Pipelayers, Plumbers, Pipefitters, and Steamfitters (644) SOC 47-2150	*1.9%*
Painters, Construction and Maintenance (642) SOC 47-2141	*1.7%*
Construction Laborers (626) SOC 47-2061	*1.6%*
Secretaries and Administrative Assistants (570) SOC 43-6010	*1.1%*
Drywall Installers, Ceiling Tile Installers, and Tapers (633) SOC 47-2080	*0.8%*

Table 24: Major Above-Average Paying Occupations for Workers with High School Only, Construction Industry

Occupation	*Percent of all workers in the industry in this occupation with high school only*

Carpenters (623) SOC 47-2031	*4.0%*
Construction Laborers (626) SOC 47-2061	*3.7%*
First-Line Supervisors/Managers of Construction Trades and Extraction Workers (620) SOC 47-1011	*2.4%*
Painters, Construction and Maintenance (642) SOC 47-2141	*2.3%*
Electricians (635) SOC 47-2111	*1.9%*
Pipelayers, Plumbers, Pipefitters, and Steamfitters (644) SOC 47-2150	*1.5%*
Construction Managers (022) SOC 11-9021	*1.2%*
Carpet, Floor, and Tile Installers and Finishers (624) SOC 47-2040	*0.5%*

Table 25: Major Above-Average Paying Occupations for Workers with Less Than High School, Construction Industry

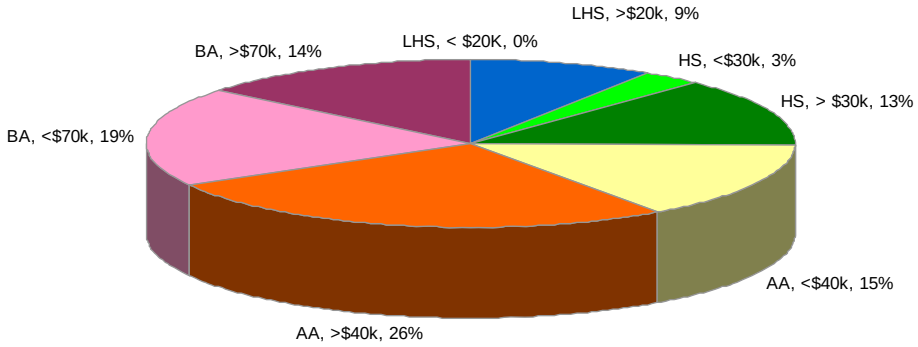
Occupation	*Percent of all workers in the industry in this occupation with less than high school*
Construction Laborers (626) SOC 47-2061	*7.0%*
Carpenters (623) SOC 47-2031	*3.8%*
Painters, Construction and Maintenance (642) SOC 47-2141	*2.9%*
First-Line Supervisors/Managers of Construction Trades and Extraction Workers (620) SOC 47-1011	*1.2%*
Construction Managers (022) SOC 11-9021	*1.0%*
Roofers (651) SOC 47-2181	*0.9%*
Drywall Installers, Ceiling Tile Installers, and Tapers (633) SOC 47-2080	*0.8%*
Pipelayers, Plumbers, Pipefitters, and Steamfitters (644) SOC 47-2150	*0.6%*

Physical Infrastructure Sector: Transportation

The other recommended targeted industry in the physical infrastructure sector is transportation, including air and water-based freight and passenger transportation, inter-city and local trucking, local transit and taxi services, and ancillary services such as logistics. This cluster of industries employed 5,425 people in San Francisco in 2005. While its job base has been declining in recent years, it did add over 400 new jobs between 2004 and 2005. EDD projects relatively flat total employment in the region over the 2002-2012 period, but there will be significant replacement opportunity as the industry's aging workforce retires.

Like construction, the transportation industry creates quality job opportunities at all levels. Figure 58 below illustrates that nearly half of all of the jobs in industry are above-average-paying, and suitable for workers without a four-year degree.

Figure 58: Transportation Jobs by Education and Income



The specific occupations that create these career opportunities for less-educated workers are indicated in the following tables.

Table 26: Major Above-Average Paying Occupations for Workers with Some College, Transportation Industry

Occupation	*Percent of all workers in the industry in this occupation with some college*
Aircraft Mechanics and Service Technicians (714) SOC 49-3011	*7.8%*
Transportation Attendants (455) SOC 39-6030	*5.2%*
Machinists (803) SOC 51-4041	*0.9%*
Supervisors, Transportation and Material Moving Workers (900) SOC 53-1000	*0.9%*
Aircraft Pilots and Flight Engineers (903) SOC 53-2010	*0.7%*
First-Line Supervisors/Managers of Office and Administrative Support Workers (500) SOC 43-1011	*0.7%*
Ship and Boat Captains and Operators (931) SOC 53-5020	*0.6%*
Secretaries and Administrative Assistants (570) SOC 43-6010	*0.5%*
First-Line Supervisors/Managers of Mechanics, Installers, and Repairers (700) SOC 49-1011	*0.5%*

Table 27: Major Above-Average Paying Occupations for Workers with High School Only, Transportation Industry

Occupation	*Percent of all workers in the industry in this occupation with high school only*
Aircraft Mechanics and Service Technicians (714) SOC 49-3011	*1.6%*
Driver/Sales Workers and Truck Drivers (913) SOC 53-3030	*1.6%*
Transportation Attendants (455) SOC 39-6030	*1.5%*
Reservation and Transportation Ticket Agents and Travel Clerks (541) SOC 43-4181	*1.1%*
Customer Service Representatives (524) SOC 43-4051	*0.9%*
Cargo and Freight Agents (550) SOC 43-5011	*0.6%*
Machinists (803) SOC 51-4041	*0.6%*

Table 28: Major Above-Average Paying Occupations for Workers with Less Than High School, Transportation Industry

Occupation	*Percent of all workers in the industry in this occupation with less than high school*
Driver/Sales Workers and Truck Drivers (913) SOC 53-3030	*1.4%*
Laborers and Freight, Stock, and Material Movers, Hand (962) SOC 53-7062	*0.8%*
Shipping, Receiving, and Traffic Clerks (561) SOC 43-5071	*0.6%*

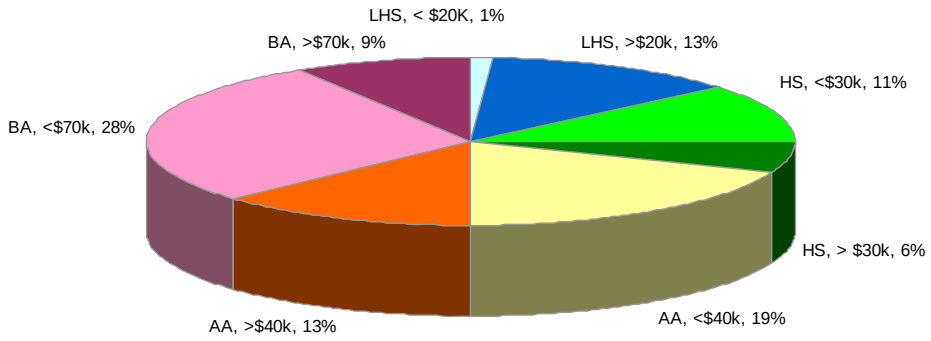
Experience Sector: Retail/Accommodations

Retail and accommodations are two industries that can be thought of as a single cluster from a workforce point of view, because many of the same customer service skills are transferable from a retail to a hospitality working environment. Together, both retail and hospitality are among the largest and fastest-growing industries in the San Francisco economy, and are therefore ideal targets particularly for entry-level workers with limited education and experience. For the purposes of this analysis, retail/accommodations includes the entire retail trade industry (including non-experience-based retail trade, such as gasoline stations), as well as all accommodations, and food and drink service establishments.

Together, these industries employed 104,058 people in San Francisco in 2005, a 1.2% increase over 2004. Retail trade in particular is projected by EDD to be a major source of growth over the 2002-2012 decade, with 9,800 new jobs being created.

Most of the jobs in the retail/accommodations industry pay on the low end for each level of educational attainment, but, given the size of the industry in San Francisco, job opportunities do exist, particularly for workers with less than a high-school degree.

Figure 59: Retail/Accommodations Jobs by Education and Income



The specific above-average paying occupations, at each level of education, are shown in the tables below.

Table 29: Major Above-Average Paying Occupations for Workers with Some College, Retail/Accommodations Industry

Occupation	*Percent of all workers in the industry in this occupation with some college*
First-Line Supervisors/Managers of Retail Sales Workers (470) SOC 41-1011	*4.0%*
Lodging Managers (034) SOC 11-9081	*1.0%*
Wholesale and Retail Buyers, Except Farm Products (052) SOC 13-1022	*0.7%*

Table 30: Major Above-Average Paying Occupations for Workers with High School Only, Retail/Accommodations Industry

Occupation	*Percent of all workers in the industry in this occupation with high school only*
First-Line Supervisors/Managers of Retail Sales Workers (470) SOC 41-1011	*1.7%*

Table 31: Major Above-Average Paying Occupations for Workers with Less Than High School, Retail/Accommodations Industry

Occupation	*Percent of all workers in the industry in this occupation with less than high school*
Maids and Housekeeping Cleaners (423) SOC 37-2012	*3.1%*
Retail Salespersons (476) SOC 41-2031	*2.3%*
Janitors and Building Cleaners (422) SOC 37-201X	*0.8%*
Cooks (402) SOC 35-2010	*0.8%*
Cashiers (472) SOC 41-2010	*0.7%*
First-Line Supervisors/Managers of Retail Sales Workers (470) SOC 41-1011	*0.6%*

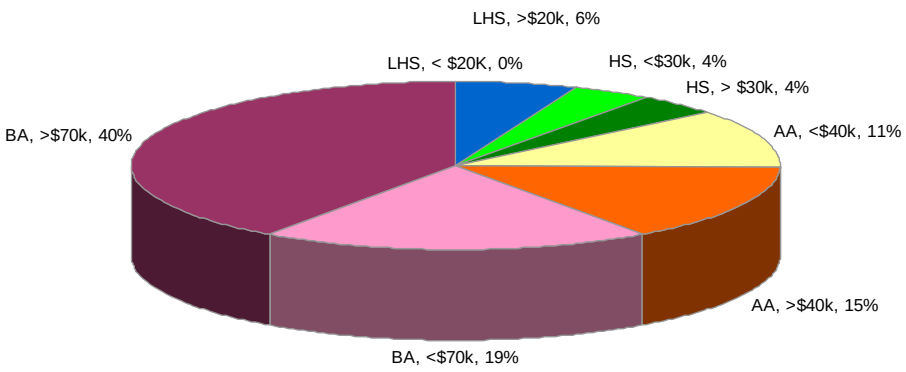
Human Infrastructure Sector: Health Care

The final target industry is health care, in the human infrastructure sector of the economy. For the purposes of this analysis, health care includes ambulatory health care (physicians' and dentists' offices, and medical laboratories), hospitals, and residential and community care facilities. Like the other target industries, health care is a solid source of job growth in San Francisco, and offers a wide range of job opportunities to workers at every level of education.

In 2005, the health care industry employed 28,934 people in San Francisco, which represented a quite high 2.5% growth rate over the 2004 employment figure. As the population and workforce of San Francisco ages over the next twenty years, there will be significant growth and replacement potential in health care. EDD projects 3,500 new jobs in the hospital sector, and 2,300 new jobs in the ambulatory segment of the industry.

41% of workers in the health care industry do not have a four-year university degree, and the bulk of these jobs pay an above-average salary.

Figure 60: Health Care Jobs by Education and Income



The major opportunity occupations are listed in the tables below.

Table 32: Major Above-Average Paying Occupations for Workers with Some College, Health Care Industry

Occupation	*Percent of all workers in the industry in this occupation with some college*
Registered Nurses (313) SOC 29-1111	*4.3%*
Secretaries and Administrative Assistants (570) SOC 43-6010	*1.6%*
Licensed Practical and Licensed Vocational Nurses (350) SOC 29-2061	*1.3%*
Medical and Health Services Managers (035) SOC 11-9111	*0.9%*
Diagnostic Related Technologists and Technicians (332) SOC 29-2030	*0.8%*
First-Line Supervisors/Managers of Office and Administrative Support Workers (500) SOC 43-1011	*0.7%*

Table 33: Major Above-Average Paying Occupations for Workers with Less Than High School, Health Care Industry

Occupation	*Percent of all workers in the industry in this occupation with less than high school*
Nursing, Psychiatric, and Home Health Aides (360) SOC 31-1010	*1.9%*
Personal and Home Care Aides (461) SOC 39-9021	*0.6%*

Maids and Housekeeping Cleaners (423) SOC 37-2012	*0.5%*

No single occupation employed over 0.5% of the workforce with a high school diploma only.

Appendix F: Demographics of Occupations in Priority Industries

Appendix E: Occupational Analysis of the Priority Workforce Industries outlined the major occupations in the six target industries that have the potential to address key goals of the economic strategy, such as expanding new job opportunities in growth industries, and creating higher quality employment for San Francisco residents without a four-year degree.

This section will provide greater detail regarding who currently holds these jobs in San Francisco, in terms of race, sex, age, language, and disability. Workforce development programs can be targeted to prepare people for these occupations, but they need to be built upon an awareness of the existing disparities in employment patterns.

Each of the tables in this section lists 59 occupations, each of which was identified in the previous section as a significant source of employment in at least one of the six target industries. Some of the occupations are major sources of employment in more than one of the target industries. In addition, each occupation relatively large source of above-average employment for workers with some college, a high school diploma only, or less than a high school education. Similarly, some occupations are relatively large sources of employment for more than one educational attainment cohort, meaning the occupation is held by significant numbers of people with different levels of education.

The keys below indicate the industry or industries, and the levels of educational attainment, each occupation is associated with.

Industries Key:

B—Biotechnology

C—Construction

DM—Digital Media/IT

HC—Health Care

R/A—Retail/Accommodations

T—Transportation

Education Key:

LHS—Significant source of above-average employment for workers without a high school diploma

HS—Significant source of above-average employment for workers with only a high school diploma

SC—Significant source of above-average employment for workers with some college.

Table 34 below indicates the estimated number of San Francisco residents who worked in each of the 59 occupations in 2000, based on 2000 Census figures. While there may have been significant changes to these numbers since the 2000 Census, these figures should at least provide a sense of the relative magnitude of employment opportunities in each of these jobs. The job numbers in Table 1 refer to the number of San Francisco residents who hold each of these jobs, regardless of where they work.

The largest occupations in the table include retail salespersons, secretaries and administrative assistants, cashiers, marketing and sales managers, miscellaneous managers, cooks, supervisors of retail workers, janitors and building cleaners, and customer service representatives. Of these, cooks, cashiers, retail salespeople, and janitors/building cleaners are low-wage occupations that provide above-average employment only to workers without a high-school diploma. They are also only associated with the retail/accommodations industry. Customer service reps are associated with the IT/digital media, and transportation industry, and provide above-average employment to workers with a high-school diploma (which most such workers have). Secretaries/administrative assistants, marketing/sales managers, and other managers provide above-average employment to workers with some college, and are found across a number of industries.

Table 34: Estimates of Occupational Employment of Major Occupations in Target Industries, 2000

Occupation	*Industries*						*Education*			*Employees*
	B	C	DM	HC	R/A	T	LHS	HS	SC	
All San Francisco Employees										
Carpenters (623) SOC 47-2031		x					x	x	x	3,348
Construction Laborers (626) SOC 47-2061		x					x	x	x	3,048
Construction Managers (022) SOC 11-9021		x					x	x	x	1,844
First-Line Supervisors/Managers of Construction Trades and Extraction Workers (620) SOC 47-1011		x					x	x	x	1,723
First-Line Supervisors/Managers of Production and Operating Workers (770) SOC 51-1011	x						x	x	x	1,567
First-Line Supervisors/Managers of Retail Sales Workers (470) SOC 41-1011					x		x	x	x	8,165
Painters, Construction and Maintenance (642) SOC 47-2141		x					x	x	x	2,591

Pipelayers, Plumbers, Pipefitters, and Steamfitters (644) SOC 47-2150		x					x	x	x	947
Driver/Sales Workers and Truck Drivers (913) SOC 53-3030						x	x	x		5,452
Drywall Installers, Ceiling Tile Installers, and Tapers (633) SOC 47-2080		x					x		x	355
Cashiers (472) SOC 41-2010					x		x			10,453
Cooks (402) SOC 35-2010					x		x			9,535
Crushing, Grinding, Polishing, Mixing, and Blending Workers (865) SOC 51-9020	x						x			80
Janitors and Building Cleaners (422) SOC 37-201X					x		x			8,053
Laborers and Freight, Stock, and Material Movers, Hand (962) SOC 53-7062						x	x			5,345
Maids and Housekeeping Cleaners (423) SOC 37-2012				x	x		x			7,195
Nursing, Psychiatric, and Home Health Aides (360) SOC 31-1010				x			x			4,754
Other Production Workers, Including Semiconductor Processors and Cooling and Freezing Equipment Operators (896) SOC 51-9	x						x			2,663
Personal and Home Care Aides (461) SOC 39-9021				x			x			2,323
Retail Salespersons (476) SOC 41-2031					x		x			13,920
Roofers (651) SOC 47-2181		x					x			328
Shipping, Receiving, and Traffic Clerks (561) SOC 43-5071						x	x			1,833
Aircraft Mechanics and Service Technicians						x		x	x	537

(714) SOC 49-3011										
Chemical Technicians (192) SOC 19-4031	x							x	x	291
Electricians (635) SOC 47-2111		x						x	x	977
Machinists (803) SOC 51-4041						x		x	x	332
Radio and Telecommunications Equipment Installers and Repairers (702) SOC 49-2020			x					x	x	626
Transportation Attendants (455) SOC 39-6030						x		x	x	767
Cargo and Freight Agents (550) SOC 43-5011						x		x		121
Carpet, Floor, and Tile Installers and Finishers (624) SOC 47-2040		x						x		459
Customer Service Representatives (524) SOC 43-4051			x			x		x		7,877
Reservation and Transportation Ticket Agents and Travel Clerks (541) SOC 43-4181						x		x		1,270
Agricultural and Food Science Technicians (190) SOC 19-4011	x								x	91
Aircraft Pilots and Flight Engineers (903) SOC 53-2010						x			x	41
Broadcast and Sound Engineering Technicians and Radio Operators and Other Media and Communication Equipment Workers (290			x						x	793
Computer Software Engineers (102) SOC 15-1030			x						x	6,567
Computer Support Specialists (104) SOC 15-1041	x		x						x	2,327

Diagnostic Related Technologists and Technicians (332) SOC 29-2030				x					x	371
Editors (283) SOC 27-3041			x						x	2,692
Engineering Technicians, Except Drafters (155) SOC 17-3020	x								x	805
First-Line Supervisors/Managers of Mechanics, Installers, and Repairers (700) SOC 49-1011						x			x	312
First-Line Supervisors/Managers of Non-Retail Sales Workers (471) SOC 41-1012			x						x	4,883
First-Line Supervisors/Managers of Office and Administrative Support Workers (500) SOC 43-1011			x	x		x			x	6,298
Licensed Practical and Licensed Vocational Nurses (350) SOC 29-2061				x					x	1,001
Lodging Managers (034) SOC 11-9081					x				x	921
Managers, All Other (043) SOC 11-9199	x		x						x	12,114
Marketing and Sales Managers (005) SOC 11-2020			x						x	9,742
Medical and Health Services Managers (035) SOC 11-9111				x					x	1,278
Miscellaneous Life, Physical, and Social Science Technicians, Including Social Science Research Assistants and Nuclear T	x								x	969
Network Systems and Data Communications Analysts (111) SOC 15-1081			x						x	4,824
Producers and Directors (271) SOC			x						x	2,164

27-2012										
Registered Nurses (313) SOC 29-1111				x					x	6,505
Sales Representatives, Services, All Other (484) SOC 41-3099			x						x	3,923
Sales Representatives, Wholesale and Manufacturing (485) SOC 41-4010	x								x	3,967
Secretaries and Administrative Assistants (570) SOC 43-6010	x	x	x	x		x			x	13,052
Ship and Boat Captains and Operators (931) SOC 53-5020						X			x	54
Supervisors, Transportation and Material Moving Workers (900) SOC 53-1000						X			x	653
Telecommunications Line Installers and Repairers (742) SOC 49-9052			x						x	133
Wholesale and Retail Buyers, Except Farm Products (052) SOC 13-1022					x				x	1,453

Source: 2000 Census, Public Use Micro-sample

Race and Gender Demographics

The racial and gender composition of occupational employment, like other dimensions of workforce demographics, is important in workforce planning because it highlights where additional resources may need to be placed to address disparities and ensure opportunities are available to everyone who needs them. Table 35 below presents results of the Equal Employment Opportunity file from the 2000 Census, which breaks down occupational employment in San Francisco into various racial and gender categories. The top row of Table 35 shows the percentages for all employment in San Francisco. In contrast to the numbers in Table 34, which showed the occupational breakdown of residents of San Francisco, Table 35 shows the demographics of jobs based in San Francisco, regardless of where those workers live.

The key to abbreviations of these groups is shown below.

Race and Sex Demographics Key:

BM—African-American male

AM—Asian male

LM—Latino male

WM—White male

OM—Other men ("Other" includes native American, Alaskan and Hawaiian native, and multi-race)

BF—African-American female

AF—Asian female

LF—Latino female

WF—White female

OF—Other female

The results of Table 35 are complex, but the largest occupations discussed above illustrate some patterns. In terms of the low-wage, less-than-high school occupations concentrated in the experience sector (retail/accommodations industry), women (particularly Asian and Latina) are disproportionately represented as cashiers and retail salespeople, and non-white men are disproportionately cooks and janitors. Customer service representatives, and especially secretaries/administrative assistants are over-represented as women (white women in the case of secretaries). The other large occupations offering above-average employment to workers with some college—marketing/sales managers and miscellaneous managers—are more gender-balanced, but are disproportionately comprised of whites.

These patterns of proportionality are relative to the total job base in San Francisco, and do not consider the different levels of educational attainment of the different groups.

Table 35: Race and Gender Demographics of Major Occupations in Target Industries, 2000

Occupation	*Industries*						*Education*			*Demographics*									
	B	C	DM	HC	R/A	T	LHS	HS	SC	% BM	% AM	% LM	% WM	% OM	% BF	% AF	% LF	% WF	% OF
All San Francisco Employees										3%	11%	7%	30%	2%	3%	13%	5%	23%	2%
Carpenters (623) SOC 47-2031		x					x	x	x	5%	12%	29%	49%	4%	0%	0%	0%	1%	1%
Construction Laborers (626) SOC 47-2061		x					x	x	x	5%	17%	48%	26%	2%	0%	0%	1%	1%	0%
Construction Managers (022) SOC 11-9021		x					x	x	x	3%	14%	6%	66%	2%	0%	1%	0%	8%	0%
First-Line Supervisors/Managers of Construction Trades and Extraction Workers (620) SOC 47-1011		x					x	x	x	3%	10%	18%	66%	1%	0%	0%	1%	2%	0%

First-Line Supervisors/Managers of Production and Operating Workers (770) SOC 51-1011	x						x	x	x	1%	16%	11%	36%	3%	3%	15%	3%	12%	1%
First-Line Supervisors/Managers of Retail Sales Workers (470) SOC 41-1011					x		x	x	x	3%	15%	6%	32%	3%	1%	11%	4%	24%	1%
Painters, Construction and Maintenance (642) SOC 47-2141		x					x	x	x	4%	13%	35%	37%	4%	1%	0%	2%	5%	0%
Pipelayers, Plumbers, Pipefitters, and Steamfitters (644) SOC 47-2150		x					x	x	x	8%	15%	23%	49%	3%	0%	0%	0%	2%	0%
Driver/Sales Workers and Truck Drivers (913) SOC 53-3030						x	x	x		10%	17%	29%	33%	6%	1%	1%	1%	2%	0%
Drywall Installers, Ceiling Tile Installers, and Tapers (633) SOC 47-2080		x					x		x	3%	2%	35%	57%	2%	1%	0%	0%	0%	0%
Cashiers (472) SOC 41-2010					x		x			2%	17%	9%	10%	2%	4%	31%	13%	9%	3%
Cooks (402) SOC 35-2010					x		x			3%	31%	32%	7%	2%	2%	9%	9%	4%	2%
Crushing, Grinding, Polishing, Mixing, and Blending Workers (865) SOC 51-9020	x						x			6%	16%	55%	23%	0%	0%	0%	0%	0%	0%
Janitors and Building Cleaners (422) SOC 37-201X					x		x			8%	21%	29%	12%	2%	2%	9%	16%	1%	0%
Laborers and Freight, Stock, and Material Movers, Hand (962) SOC 53-7062						x	x			13%	18%	22%	26%	4%	3%	5%	6%	1%	1%
Maids and Housekeeping Cleaners (423) SOC 37-2012				x	x		x			2%	8%	3%	2%	0%	3%	33%	42%	6%	2%
Nursing, Psychiatric, and Home Health Aides (360) SOC 31-1010				x			x			4%	9%	2%	6%	1%	13%	38%	12%	11%	3%
Other Production Workers, Including Semiconductor Processors and Cooling and Freezing Equipment Operators (896) SOC 51-9	x						x			3%	19%	10%	20%	3%	1%	31%	3%	9%	1%

Personal and Home Care Aides (461) SOC 39-9021				x			x			2%	5%	1%	9%	1%	14%	36%	14%	14%	4%
Retail Salespersons (476) SOC 41-2031					x		x			3%	12%	6%	24%	2%	3%	17%	6%	23%	4%
Roofers (651) SOC 47-2181		x					x			0%	16%	67%	14%	3%	0%	0%	0%	0%	0%
Shipping, Receiving, and Traffic Clerks (561) SOC 43-5071						x	x			9%	22%	18%	24%	3%	3%	11%	6%	3%	1%
Aircraft Mechanics and Service Technicians (714) SOC 49-3011						x		x	x	5%	17%	16%	54%	3%	0%	1%	0%	3%	0%
Chemical Technicians (192) SOC 19-4031	x							x	x	0%	23%	0%	55%	0%	6%	0%	0%	16%	0%
Electricians (635) SOC 47-2111		x						x	x	5%	8%	14%	65%	5%	0%	0%	0%	3%	0%
Machinists (803) SOC 51-4041						x		x	x	13%	39%	8%	36%	4%	0%	0%	0%	0%	0%
Radio and Telecommunications Equipment Installers and Repairers (702) SOC 49-2020			x					x	x	5%	21%	16%	35%	7%	2%	7%	2%	4%	2%
Transportation Attendants (455) SOC 39-6030						x		x	x	5%	6%	2%	2%	2%	6%	13%	3%	57%	3%
Cargo and Freight Agents (550) SOC 43-5011						x		x		23%	16%	0%	42%	8%	0%	0%	8%	3%	0%
Carpet, Floor, and Tile Installers and Finishers (624) SOC 47-2040		x						x		0%	7%	40%	46%	6%	0%	0%	0%	1%	0%
Customer Service Representatives (524) SOC 43-4051			x			x		x		4%	8%	6%	20%	2%	9%	15%	8%	25%	2%
Reservation and Transportation Ticket Agents and Travel Clerks (541) SOC 43-4181						x		x		3%	12%	3%	11%	2%	8%	14%	9%	30%	8%
Agricultural and Food Science Technicians (190) SOC 19-4011	x								x	0%	71%	14%	0%	0%	0%	0%	0%	14%	0%
Aircraft Pilots and Flight Engineers (903) SOC 53-2010						x			x	5%	6%	0%	76%	0%	0%	0%	0%	13%	0%

Broadcast and Sound Engineering Technicians and Radio Operators and Other Media and Communication Equipment Workers (290			x						x	3%	8%	9%	58%	4%	0%	4%	1%	13%	0%
Computer Software Engineers (102) SOC 15-1030			x						x	2%	21%	3%	51%	3%	1%	7%	1%	11%	0%
Computer Support Specialists (104) SOC 15-1041	x		x						x	4%	18%	5%	42%	3%	3%	9%	1%	15%	1%
Diagnostic Related Technologists and Technicians (332) SOC 29-2030				x					x	3%	19%	3%	18%	6%	8%	6%	0%	36%	0%
Editors (283) SOC 27-3041			x						x	1%	3%	2%	40%	1%	2%	3%	3%	42%	3%
Engineering Technicians, Except Drafters (155) SOC 17-3020	x								x	4%	27%	8%	37%	2%	2%	7%	2%	10%	0%
First-Line Supervisors/Managers of Mechanics, Installers, and Repairers (700) SOC 49-1011						x			x	9%	6%	12%	51%	4%	4%	2%	3%	10%	0%
First-Line Supervisors/Managers of Non-Retail Sales Workers (471) SOC 41-1012			x						x	2%	13%	6%	39%	2%	2%	6%	3%	25%	2%
First-Line Supervisors/Managers of Office and Administrative Support Workers (500) SOC 43-1011			x	x		x			x	4%	7%	5%	21%	1%	6%	14%	6%	33%	3%
Licensed Practical and Licensed Vocational Nurses (350) SOC 29-2061				x					x	3%	6%	3%	5%	1%	16%	28%	13%	19%	6%
Lodging Managers (034) SOC 11-9081					x				x	2%	13%	2%	38%	4%	4%	9%	6%	20%	3%
Managers, All Other (043) SOC 11-9199	x		x						x	3%	8%	3%	36%	2%	3%	8%	4%	31%	2%
Marketing and Sales Managers (005) SOC 11-2020			x						x	1%	4%	2%	38%	1%	2%	5%	3%	41%	2%
Medical and Health Services Managers (035) SOC 11-9111				x					x	3%	5%	4%	22%	2%	8%	9%	4%	42%	1%

Miscellaneous Life, Physical, and Social Science Technicians, Including Social Science Research Assistants and Nuclear T	x								x	1%	10%	9%	18%	1%	2%	23%	5%	30%	0%
Network Systems and Data Communications Analysts (111) SOC 15-1081			x						x	2%	12%	5%	46%	4%	0%	7%	2%	21%	1%
Producers and Directors (271) SOC 27-2012			x						x	1%	3%	6%	43%	0%	2%	4%	1%	39%	1%
Registered Nurses (313) SOC 29-1111				x					x	1%	2%	1%	9%	0%	5%	26%	4%	49%	4%
Sales Representatives, Services, All Other (484) SOC 41-3099			x						x	3%	6%	4%	46%	3%	3%	4%	2%	27%	0%
Sales Representatives, Wholesale and Manufacturing (485) SOC 41-4010	x								x	2%	7%	4%	47%	2%	1%	7%	3%	25%	2%
Secretaries and Administrative Assistants (570) SOC 43-6010	x	x	x	x		x			x	1%	2%	2%	8%	1%	8%	18%	11%	46%	3%
Ship and Boat Captains and Operators (931) SOC 53-5020						x			x	6%	2%	0%	86%	0%	4%	0%	0%	2%	0%
Supervisors, Transportation and Material Moving Workers (900) SOC 53-1000						x			x	10%	11%	15%	38%	6%	4%	4%	4%	10%	0%
Telecommunications Line Installers and Repairers (742) SOC 49-9052			x						x	18%	17%	15%	34%	9%	3%	2%	1%	1%	0%
Wholesale and Retail Buyers, Except Farm Products (052) SOC 13-1022					x				x	1%	5%	4%	26%	1%	4%	8%	4%	45%	2%

Source: 2000 Census, EEO file

Age Demographics

The age profile of occupations is also important in workforce planning, particularly in meeting the challenge of creating job opportunities for young people, without advanced education, entering the workforce for the first time. Occupations that are disproportionately held by younger people are better targets for placement than industries where the workforce is typically older and more experienced.

Table 36 provides the age distribution of each of the 59 major occupations across the six target industries. Young workers are heavily concentrated in some of the lower-paying experience-

sector jobs, especially cashiers and retail salespeople, but there are also opportunities in construction jobs, such as carpet installation, and laborer occupations.

Table 36: Age Demographics of Major Occupations in Target Industries

Occupation	*Industries*						*Education*			***Age Demographics***					
	B	C	DM	HC	R/A	T	LHS	HS	SC	16-19	20-24	25-34	35-54	55-64	65+
All San Francisco Employees										**3%**	**9%**	**32%**	**41%**	**9%**	**5%**
Carpenters (623) SOC 47-2031		x					x	x	x	0%	3%	39%	51%	5%	2%
Construction Laborers (626) SOC 47-2061		x					x	x	x	6%	9%	29%	47%	7%	2%
Construction Managers (022) SOC 11-9021		x					x	x	x	0%	2%	31%	61%	6%	1%
First-Line Supervisors/Managers of Construction Trades and Extraction Workers (620) SOC 47-1011		x					x	x	x	3%	8%	19%	53%	10%	7%
First-Line Supervisors/Managers of Production and Operating Workers (770) SOC 51-1011	x						x	x	x	0%	7%	21%	58%	6%	9%
First-Line Supervisors/Managers of Retail Sales Workers (470) SOC 41-1011					x		x	x	x	1%	9%	33%	44%	9%	3%
Painters, Construction and Maintenance (642) SOC 47-2141		x					x	x	x	0%	7%	23%	52%	11%	6%
Pipelayers, Plumbers, Pipefitters, and Steamfitters (644) SOC 47-2150		x					x	x	x	0%	1%	34%	48%	16%	0%
Driver/Sales Workers and Truck Drivers (913) SOC 53-3030						x	x	x		3%	6%	25%	45%	15%	6%
Drywall Installers, Ceiling Tile Installers, and Tapers (633) SOC 47-2080		x					x		x	0%	22%	30%	48%	0%	0%
Cashiers (472) SOC 41-2010					x		x			23%	19%	19%	29%	7%	3%
Cooks (402) SOC 35-2010					x		x			6%	11%	26%	43%	9%	5%

Crushing, Grinding, Polishing, Mixing, and Blending Workers (865) SOC 51-9020	x						x			0%	24%	16%	60%	0%	0%
Janitors and Building Cleaners (422) SOC 37-201X					x		x			4%	5%	13%	48%	21%	10%
Laborers and Freight, Stock, and Material Movers, Hand (962) SOC 53-7062						x	x			7%	18%	17%	43%	11%	4%
Maids and Housekeeping Cleaners (423) SOC 37-2012				x	x		x			0%	2%	16%	55%	17%	10%
Nursing, Psychiatric, and Home Health Aides (360) SOC 31-1010				x			x			3%	3%	13%	49%	18%	14%
Other Production Workers, Including Semiconductor Processors and Cooling and Freezing Equipment Operators (896) SOC 51-9	x						x			4%	5%	19%	55%	15%	3%
Personal and Home Care Aides (461) SOC 39-9021				x			x			2%	3%	12%	50%	22%	11%
Retail Salespersons (476) SOC 41-2031					x		x			14%	18%	30%	27%	5%	6%
Roofers (651) SOC 47-2181		x					x			0%	3%	33%	58%	6%	0%
Shipping, Receiving, and Traffic Clerks (561) SOC 43-5071						x	x			3%	12%	29%	47%	3%	6%
Aircraft Mechanics and Service Technicians (714) SOC 49-3011						x		x	x	0%	0%	13%	67%	20%	0%
Chemical Technicians (192) SOC 19-4031	x							x	x	0%	7%	62%	24%	0%	8%
Electricians (635) SOC 47-2111		x						x	x	1%	7%	31%	49%	10%	2%
Machinists (803) SOC 51-4041						x		x	x	0%	0%	8%	70%	19%	3%
Radio and Telecommunications Equipment Installers and Repairers (702) SOC 49-2020			x					x	x	0%	5%	23%	62%	3%	7%

Transportation Attendants (455) SOC 39-6030						x		x	x	0%	0%	23%	65%	9%	3%
Cargo and Freight Agents (550) SOC 43-5011						x		x		0%	18%	36%	46%	0%	0%
Carpet, Floor, and Tile Installers and Finishers (624) SOC 47-2040		x						x		10%	10%	10%	59%	10%	0%
Customer Service Representatives (524) SOC 43-4051			x			x		x		7%	14%	45%	29%	5%	1%
Reservation and Transportation Ticket Agents and Travel Clerks (541) SOC 43-4181						x		x		0%	3%	26%	52%	13%	6%
Agricultural and Food Science Technicians (190) SOC 19-4011	x								x	0%	42%	44%	14%	0%	0%
Aircraft Pilots and Flight Engineers (903) SOC 53-2010						x			x	0%	0%	44%	56%	0%	0%
Broadcast and Sound Engineering Technicians and Radio Operators and Other Media and Communication Equipment Workers (290			x						x	1%	3%	43%	45%	8%	0%
Computer Software Engineers (102) SOC 15-1030			x						x	0%	6%	54%	37%	2%	1%
Computer Support Specialists (104) SOC 15-1041	x		x						x	3%	15%	50%	28%	3%	1%
Diagnostic Related Technologists and Technicians (332) SOC 29-2030				x					x	0%	0%	16%	66%	18%	0%
Editors (283) SOC 27-3041			x						x	3%	5%	45%	37%	7%	3%
Engineering Technicians, Except Drafters (155) SOC 17-3020	x								x	0%	14%	11%	60%	13%	2%
First-Line Supervisors/Managers of Mechanics, Installers, and Repairers (700) SOC						x			x	0%	0%	22%	35%	24%	19%

49-1011																
First-Line Supervisors/Managers of Non-Retail Sales Workers (471) SOC 41-1012			x						x	1%	4%	46%	39%	7%	3%
First-Line Supervisors/Managers of Office and Administrative Support Workers (500) SOC 43-1011			x	x		x			x	0%	6%	31%	47%	10%	5%
Licensed Practical and Licensed Vocational Nurses (350) SOC 29-2061				x					x	0%	4%	17%	60%	12%	8%
Lodging Managers (034) SOC 11-9081					x				x	2%	2%	40%	29%	13%	14%
Managers, All Other (043) SOC 11-9199	x		x						x	0%	4%	42%	44%	7%	2%
Marketing and Sales Managers (005) SOC 11-2020			x						x	0%	9%	57%	31%	2%	1%
Medical and Health Services Managers (035) SOC 11-9111				x					x	0%	0%	24%	56%	18%	2%
Miscellaneous Life, Physical, and Social Science Technicians, Including Social Science Research Assistants and Nuclear T	x								x	3%	27%	48%	22%	0%	0%
Network Systems and Data Communications Analysts (111) SOC 15-1081			x						x	2%	15%	54%	28%	0%	0%
Producers and Directors (271) SOC 27-2012			x						x	0%	5%	56%	34%	1%	3%
Registered Nurses (313) SOC 29-1111				x					x	0%	3%	29%	51%	11%	5%
Sales Representatives, Services, All Other (484) SOC 41-3099			x						x	1%	9%	49%	32%	5%	4%
Sales Representatives, Wholesale and Manufacturing (485)	x								x	2%	5%	35%	47%	5%	5%

SOC 41-4010																
Secretaries and Administrative Assistants (570) SOC 43-6010	x	x	x	x		x			x	2%	11%	30%	43%	10%	4%
Ship and Boat Captains and Operators (931) SOC 53-5020						x			x	0%	0%	35%	0%	65%	0%
Supervisors, Transportation and Material Moving Workers (900) SOC 53-1000						x			x	0%	22%	31%	41%	4%	3%
Telecommunications Line Installers and Repairers (742) SOC 49-9052			x						x	0%	0%	62%	38%	0%	0%
Wholesale and Retail Buyers, Except Farm Products (052) SOC 13-1022					x				x	0%	15%	49%	28%	5%	3%

Source: *2000 Census, Public Use Micro-sample*

Language Demographics

In a city like San Francisco, where 46% of households speak a language other than English at home, and many thousands of residents have limited English proficiency, effective workforce development involves linking occupational training with language and other cultural programs. The data in Table 37 below will assist this by linking the 59 major occupations to the linguistic proficiency of the populations that currently perform them. Five linguistic communities in San Francisco—speakers of any Chinese language, speakers of any Filipino language, Russian speakers, Spanish speakers, and Vietnamese speakers—are profiled. Each group is further divided into those who do not speak English very well (the "No" columns), and those who do speak English very well (the "Yes" column). Each cell represents the percentage of total employment in that occupation in San Francisco that falls into that linguistic group, i.e. 6% of all employees in San Francisco are native speakers of Mandarin, Cantonese, or another Chinese language who do not speak English very well; another 10% of all employees in San Francisco are native speakers of a Chinese language who do speak English very well.

Table 37: Language Demographics of Major Occupations in Target Industries

Occupation	*Industries*						*Education*			***Chinese***		***Filipino***		***Russian***		***Spanish***		***Vietnamese***	
	B	C	DM	HC	R/A	T	LHS	HS	SC	***No***	***Yes***	***No***	***Yes***	***No***	***Yes***	***No***	***Yes***	***No***	***Yes***
All San Francisco Employees										**6%**	**10%**	**0%**	**3%**	**0%**	**1%**	**3%**	**9%**	**0%**	**1%**
Carpenters (623) SOC 47-2031		x					x	x	x	17%	4%	0%	0%	0%	0%	7%	11%	1%	1%

Construction Laborers (626) SOC 47-2061		x					x	x	x	24%	6%	0%	2%	0%	1%	13%	28%	0%	1%
Construction Managers (022) SOC 11-9021		x					x	x	x	7%	22%	0%	5%	0%	1%	6%	6%	0%	0%
First-Line Supervisors/Managers of Construction Trades and Extraction Workers (620) SOC 47-1011		x					x	x	x	11%	4%	0%	2%	0%	3%	2%	14%	0%	0%
First-Line Supervisors/Managers of Production and Operating Workers (770) SOC 51-1011	x						x	x	x	13%	18%	0%	10%	0%	1%	1%	13%	0%	4%
First-Line Supervisors/Managers of Retail Sales Workers (470) SOC 41-1011					x		x	x	x	7%	11%	0%	3%	0%	0%	2%	6%	0%	3%
Painters, Construction and Maintenance (642) SOC 47-2141		x					x	x	x	18%	2%	0%	0%	0%	0%	24%	16%	1%	0%
Pipelayers, Plumbers, Pipefitters, and Steamfitters (644) SOC 47-2150		x					x	x	x	20%	10%	0%	1%	1%	1%	0%	10%	1%	2%
Driver/Sales Workers and Truck Drivers (913) SOC 53-3030						x	x	x		10%	4%	0%	1%	2%	0%	10%	21%	1%	0%
Drywall Installers, Ceiling Tile Installers, and Tapers (633) SOC 47-2080		x					x		x	0%	0%	0%	0%	0%	0%	8%	0%	0%	0%
Cashiers (472) SOC 41-2010					x		x			11%	18%	0%	5%	0%	0%	2%	10%	0%	1%
Cooks (402) SOC 35-2010					x		x			31%	9%	1%	3%	0%	0%	11%	15%	2%	1%
Crushing, Grinding, Polishing, Mixing, and Blending Workers (865) SOC 51-9020	x						x			46%	0%	0%	0%	0%	0%	14%	0%	0%	16%
Janitors and Building Cleaners (422) SOC 37-201X					x		x			20%	6%	1%	4%	0%	0%	20%	18%	1%	0%
Laborers and Freight, Stock, and Material Movers, Hand (962) SOC 53-7062						x	x			10%	5%	0%	5%	0%	0%	11%	11%	1%	2%
Maids and Housekeeping Cleaners (423) SOC				x	x		x			16%	8%	1%	5%	0%	0%	27%	18%	2%	1%

37-2012																				
Nursing, Psychiatric, and Home Health Aides (360) SOC 31-1010				x			x			9%	6%	4%	22%	1%	4%	4%	8%	0%	1%
Other Production Workers, Including Semiconductor Processors and Cooling and Freezing Equipment Operators (896) SOC 51-9	x						x			23%	17%	0%	5%	0%	1%	17%	11%	0%	0%
Personal and Home Care Aides (461) SOC 39-9021				x			x			33%	2%	5%	7%	2%	3%	3%	5%	2%	0%
Retail Salespersons (476) SOC 41-2031					x		x			4%	14%	0%	4%	0%	2%	2%	6%	0%	2%
Roofers (651) SOC 47-2181		x					x			3%	0%	0%	0%	0%	0%	43%	11%	0%	0%
Shipping, Receiving, and Traffic Clerks (561) SOC 43-5071						x	x			15%	12%	0%	1%	0%	0%	3%	7%	3%	4%
Aircraft Mechanics and Service Technicians (714) SOC 49-3011						x		x	x	6%	26%	0%	3%	0%	0%	0%	2%	0%	8%
Chemical Technicians (192) SOC 19-4031	x							x	x	0%	14%	0%	0%	0%	0%	0%	11%	0%	22%
Electricians (635) SOC 47-2111		x						x	x	13%	3%	0%	3%	0%	1%	7%	3%	2%	0%
Machinists (803) SOC 51-4041						x		x	x	9%	6%	0%	0%	0%	3%	11%	0%	0%	0%
Radio and Telecommunications Equipment Installers and Repairers (702) SOC 49-2020			x					x	x	1%	33%	0%	2%	0%	4%	1%	4%	0%	0%
Transportation Attendants (455) SOC 39-6030						x		x	x	1%	9%	0%	0%	0%	0%	0%	5%	0%	0%
Cargo and Freight Agents (550) SOC 43-5011						x		x		0%	0%	0%	16%	29%	0%	0%	0%	0%	0%
Carpet, Floor, and Tile Installers and Finishers (624) SOC 47-2040		x						x		34%	17%	0%	0%	0%	3%	0%	19%	0%	0%
Customer Service Representatives (524) SOC 43-4051			x			x		x		1%	13%	1%	5%	0%	1%	1%	14%	0%	1%

Reservation and Transportation Ticket Agents and Travel Clerks (541) SOC 43-4181						x		x		3%	2%	0%	5%	0%	0%	4%	19%	0%	0%
Agricultural and Food Science Technicians (190) SOC 19-4011	x								x	14%	0%	0%	44%	0%	0%	0%	0%	0%	0%
Aircraft Pilots and Flight Engineers (903) SOC 53-2010						x			x	0%	17%	0%	0%	0%	0%	0%	0%	0%	0%
Broadcast and Sound Engineering Technicians and Radio Operators and Other Media and Communication Equipment Workers (290			x						x	6%	1%	0%	0%	0%	0%	1%	0%	0%	0%
Computer Software Engineers (102) SOC 15-1030			x						x	0%	10%	0%	1%	0%	5%	1%	4%	0%	0%
Computer Support Specialists (104) SOC 15-1041	x		x						x	1%	16%	0%	2%	0%	0%	0%	11%	0%	1%
Diagnostic Related Technologists and Technicians (332) SOC 29-2030				x					x	3%	0%	0%	0%	0%	0%	0%	0%	0%	10%
Editors (283) SOC 27-3041			x						x	0%	2%	0%	0%	0%	3%	0%	3%	0%	0%
Engineering Technicians, Except Drafters (155) SOC 17-3020	x								x	3%	22%	0%	4%	0%	1%	1%	2%	0%	6%
First-Line Supervisors/Managers of Mechanics, Installers, and Repairers (700) SOC 49-1011						x			x	0%	0%	0%	2%	0%	14%	11%	16%	0%	0%
First-Line Supervisors/Managers of Non-Retail Sales Workers (471) SOC 41-1012			x						x	2%	12%	0%	1%	0%	1%	1%	5%	0%	0%
First-Line Supervisors/Managers of Office and Administrative Support Workers (500) SOC 43-1011			x	x		x			x	5%	10%	0%	3%	0%	5%	1%	13%	0%	0%
Licensed Practical and Licensed Vocational Nurses				x					x	11%	2%	6%	20%	1%	3%	0%	8%	0%	0%

(350) SOC 29-2061																				
Lodging Managers (034) SOC 11-9081					x				x	2%	1%	0%	4%	0%	1%	0%	4%	0%	0%
Managers, All Other (043) SOC 11-9199	x		x						x	1%	7%	0%	1%	0%	1%	0%	4%	0%	0%
Marketing and Sales Managers (005) SOC 11-2020			x						x	0%	5%	0%	1%	0%	0%	0%	7%	0%	0%
Medical and Health Services Managers (035) SOC 11-9111				x					x	0%	17%	0%	3%	0%	13%	0%	4%	0%	0%
Miscellaneous Life, Physical, and Social Science Technicians, Including Social Science Research Assistants and Nuclear T	x								x	2%	31%	0%	1%	0%	0%	0%	13%	0%	2%
Network Systems and Data Communications Analysts (111) SOC 15-1081			x						x	0%	10%	0%	2%	0%	1%	0%	4%	0%	0%
Producers and Directors (271) SOC 27-2012			x						x	0%	0%	0%	0%	0%	3%	0%	4%	0%	0%
Registered Nurses (313) SOC 29-1111				x					x	1%	6%	0%	8%	0%	6%	0%	4%	0%	0%
Sales Representatives, Services, All Other (484) SOC 41-3099			x						x	1%	3%	0%	3%	0%	0%	1%	6%	0%	1%
Sales Representatives, Wholesale and Manufacturing (485) SOC 41-4010	x								x	5%	6%	0%	0%	0%	1%	1%	7%	0%	0%
Secretaries and Administrative Assistants (570) SOC 43-6010	x	x	x	x		x			x	1%	10%	0%	4%	0%	2%	0%	9%	0%	0%
Ship and Boat Captains and Operators (931) SOC 53-5020						x			x	0%	0%	0%	0%	0%	0%	0%	50%	0%	0%
Supervisors, Transportation and Material Moving Workers (900) SOC 53-1000						x			x	0%	31%	0%	6%	0%	0%	0%	5%	0%	0%
Telecommunications Line Installers and Repairers (742) SOC			x						x	0%	37%	0%	0%	0%	0%	0%	6%	0%	0%

49-9052																				
Wholesale and Retail Buyers, Except Farm Products (052) SOC 13-1022					x				x	2%	4%	0%	1%	0%	0%	0%	4%	0%	8%

Disability Demographics

The final dimension of occupational demographics considered in this chapter is disability. Three different forms of disability are defined by the Census and are considered important for this analysis:

- Physical—whether the respondent has a long-lasting condition that substantially limits one or more basic physical activities, such as walking, climbing stairs, reaching, lifting, or carrying.
- Memory—whether the respondent has any difficulty learning, remembering, or concentrating, because of a physical, mental, or emotional condition lasting 6 months or more.
- Vision—whether the respondent has a long-lasting condition of blindness, deafness, or a severe vision or hearing impairment.

Table 38: Disability Demographics of Major Occupations in Target Industries

Occupation	*Industries*						*Education*			***Disability***		
	B	C	DM	HC	R/A	T	LHS	HS	SC	Physical	Memory	Vision
All San Francisco Employees										**4%**	**3%**	**2%**
Carpenters (623) SOC 47-2031		x					x	x	x	0%	2%	2%
Construction Laborers (626) SOC 47-2061		x					x	x	x	4%	5%	3%
Construction Managers (022) SOC 11-9021		x					x	x	x	2%	2%	1%
First-Line Supervisors/Managers of Construction Trades and Extraction Workers (620) SOC 47-1011		x					x	x	x	1%	1%	0%
First-Line Supervisors/Managers of Production and Operating Workers (770) SOC 51-1011	x						x	x	x	8%	3%	2%

First-Line Supervisors/Managers of Retail Sales Workers (470) SOC 41-1011					x		x	x	x	5%	4%	3%
Painters, Construction and Maintenance (642) SOC 47-2141		x					x	x	x	4%	5%	3%
Pipelayers, Plumbers, Pipefitters, and Steamfitters (644) SOC 47-2150		x					x	x	x	14%	5%	0%
Driver/Sales Workers and Truck Drivers (913) SOC 53-3030						x	x	x		6%	1%	1%
Drywall Installers, Ceiling Tile Installers, and Tapers (633) SOC 47-2080		x					x		x	8%	11%	9%
Cashiers (472) SOC 41-2010					x		x			4%	3%	2%
Cooks (402) SOC 35-2010					x		x			3%	2%	1%
Crushing, Grinding, Polishing, Mixing, and Blending Workers (865) SOC 51-9020	x						x			0%	0%	0%
Janitors and Building Cleaners (422) SOC 37-201X					x		x			10%	9%	6%
Laborers and Freight, Stock, and Material Movers, Hand (962) SOC 53-7062						x	x			3%	4%	1%
Maids and Housekeeping Cleaners (423) SOC 37-2012				x	x		x			9%	5%	2%
Nursing, Psychiatric, and Home Health Aides (360) SOC 31-1010				x			x			11%	4%	3%
Other Production Workers, Including Semiconductor Processors and Cooling and Freezing Equipment Operators (896) SOC 51-9	x						x			4%	4%	1%
Personal and Home Care Aides (461) SOC 39-9021				x			x			5%	3%	3%

Retail Salespersons (476) SOC 41-2031					x		x			3%	4%	1%
Roofers (651) SOC 47-2181		x					x			15%	0%	0%
Shipping, Receiving, and Traffic Clerks (561) SOC 43-5071						x	x			0%	1%	0%
Aircraft Mechanics and Service Technicians (714) SOC 49-3011						x		x	x	0%	0%	0%
Chemical Technicians (192) SOC 19-4031	x							x	x	7%	7%	0%
Electricians (635) SOC 47-2111		x						x	x	10%	4%	9%
Machinists (803) SOC 51-4041						x		x	x	0%	0%	0%
Radio and Telecommunications Equipment Installers and Repairers (702) SOC 49-2020			x					x	x	0%	2%	0%
Transportation Attendants (455) SOC 39-6030						x		x	x	0%	5%	0%
Cargo and Freight Agents (550) SOC 43-5011						x		x		20%	0%	0%
Carpet, Floor, and Tile Installers and Finishers (624) SOC 47-2040		x						x		0%	2%	0%
Customer Service Representatives (524) SOC 43-4051			x			x		x		3%	3%	1%
Reservation and Transportation Ticket Agents and Travel Clerks (541) SOC 43-4181						x		x		3%	6%	1%
Agricultural and Food Science Technicians (190) SOC 19-4011	x								x	0%	0%	0%
Aircraft Pilots and Flight Engineers (903) SOC 53-2010						x			x	0%	0%	0%
Broadcast and Sound Engineering Technicians and Radio Operators and Other Media and Communication			x						x	0%	5%	7%

Equipment Workers (290												
Computer Software Engineers (102) SOC 15-1030			x						x	2%	1%	0%
Computer Support Specialists (104) SOC 15-1041	x		x						x	2%	5%	3%
Diagnostic Related Technologists and Technicians (332) SOC 29-2030				x					x	13%	11%	6%
Editors (283) SOC 27-3041			x						x	0%	1%	2%
Engineering Technicians, Except Drafters (155) SOC 17-3020	x								x	0%	1%	0%
First-Line Supervisors/Managers of Mechanics, Installers, and Repairers (700) SOC 49-1011						x			x	18%	24%	21%
First-Line Supervisors/Managers of Non-Retail Sales Workers (471) SOC 41-1012			x						x	1%	1%	0%
First-Line Supervisors/Managers of Office and Administrative Support Workers (500) SOC 43-1011			x	x		x			x	4%	2%	1%
Licensed Practical and Licensed Vocational Nurses (350) SOC 29-2061				x					x	15%	10%	2%
Lodging Managers (034) SOC 11-9081					x				x	14%	4%	1%
Managers, All Other (043) SOC 11-9199	x		x						x	3%	1%	0%
Marketing and Sales Managers (005) SOC 11-2020			x						x	1%	1%	0%
Medical and Health Services Managers (035) SOC 11-9111				x					x	3%	1%	0%

Miscellaneous Life, Physical, and Social Science Technicians, Including Social Science Research Assistants and Nuclear T	x								x	0%	1%	0%
Network Systems and Data Communications Analysts (111) SOC 15-1081			x						x	0%	2%	0%
Producers and Directors (271) SOC 27-2012			x						x	1%	3%	0%
Registered Nurses (313) SOC 29-1111				x					x	10%	4%	2%
Sales Representatives, Services, All Other (484) SOC 41-3099			x						x	1%	1%	2%
Sales Representatives, Wholesale and Manufacturing (485) SOC 41-4010	x								x	1%	3%	0%
Secretaries and Administrative Assistants (570) SOC 43-6010	x	x	x	x		x			x	5%	2%	2%
Ship and Boat Captains and Operators (931) SOC 53-5020						x			x	0%	0%	16%
Supervisors, Transportation and Material Moving Workers (900) SOC 53-1000						x			x	10%	3%	0%
Telecommunications Line Installers and Repairers (742) SOC 49-9052			x						x	2%	17%	0%
Wholesale and Retail Buyers, Except Farm Products (052) SOC 13-1022					x				x	2%	3%	3%

Appendix G: Results of the Survey of Business Barriers

The Survey of Business Barriers, mandated by Proposition I, was implemented as an online survey from September, 2006 until February, 2007. Businesses were notified of the survey via email, with the assistance of several business and neighborhood economic development organizations in San Francisco. Approximately 9,000 email notifications were mailed out twice, for a total of approximately 18,000 notifications. Business organizations were informed by the consulting team that hard-copy surveys could be conducted, for those businesspeople who did not have access to email.

In addition, two half-page advertisements, notifying businesses of the survey, were published in the San Francisco Business Times in November, 2006.

In January, 2007, the San Francisco Treasurer's Office mailed a paper notice of the survey to approximately 80,000 businesses in San Francisco, as part of its tax billing. The notice requested that businesses access and take the survey at the project website.

The complete list of survey questions and response options, and the response totals for each answer, are indicated below. Open-ernded responses are not included.

o

1. What is your role in this business?

	Response Total
Owner/Entrepreneur	269
General Manger/Managing Director	77
Other Employee (please specify)	95
Total Respondents	441
(skipped this question)	0

1a. How significant a barrier were the following factors in starting this business in San Francisco?

	Very significant	Significant	Neutral	Insignificant	Very Insignificant	N/A	Response Average
Permitting process and cost	46	39	36	23	19	24	2.57
Technical assistance	11	19	61	32	24	32	3.27
Local business regulations	60	51	31	11	18	16	2.27
Marketing	33	32	56	17	21	23	2.75

Finding space	44	47	31	30	11	22	2.49
Start-up financing	38	40	49	23	14	23	2.6

Total Respondents	195
(skipped this question)	246

1b. Where did you work just before starting your own business?

	Response Total
I worked for a large company in the same industry.	41
I worked for a small company in the same industry.	48
I worked in a different industry.	66
I owned a different company.	20
I worked in the public sector.	13
I worked for a non-profit organization. (Please specify.)	9

Total Respondents	197
(skipped this question)	244

1c. What motivated you to start your own business? (Please check all that apply.)

	Response Total
Opportunity to make more money	79
Greater autonomy	109
Work-life balance	71
Lack of opportunity for advancement in previous job	38
Family business	23
Other (please specify)	32

Total Respondents	198
(skipped this question)	243

1d. Do you do the majority of your work at your home?

	Response Total
Yes	45
No	155

Total Respondents	200
(skipped this question)	241

1a. Have you ever owned your own business?

	Response Total
Yes	44
No	99
Total Respondents	143
(skipped this question)	298

1b. Have any of the following factors ever discouraged you from starting your own business in San Francisco? (check all that apply)

	Response Total
Financial risk outweighs reward	45
Running a business is too stressful	19
Like my present job/career path	47
Lack of financial resources	50
Don't know how to start a business	21
San Francisco's business climate	58
Other	8
Total Respondents	137
(skipped this question)	304

1c. Which of the following business climate factors do you think would be a barrier to you starting a business in San Francisco? (Please check all that apply.)

	Response Total
Permitting process and cost	76
Technical assistance	11
Local business regulations	76
Marketing	8
Finding space	40
Start-up financing	64
Other (please specify)	20
Total Respondents	136
(skipped this question)	305

2. What San Francisco neighborhood(s) is this business located in? (Please check all that apply.)

	Response Total
Golden Gate Park/Inner Richmond/Outer Richmond/Lake Street/Lincoln Park/Ft. Miley/Lone Mountain/Sutro Heights	21
Marina/Pacific Heights/Presidio/Seacliff/Anza Vista/Aquatic Park/Ft. Mason/Cow Hollow/Laurel Heights/Jordan Park/Presidio Heights/Presidio Terrace/Russian Hill/Union Street	32
Chinatown/Downtown/Union Square/Financial District/Nob Hill/North Beach/Fisherman's Wharf/Lower Nob Hill/Northern Waterfront/Polk Gulch/Telegraph Hill	126
Outer Sunset/Parkside	20
Haight Ashbury/Inner Sunset/Western Addition/Alamo Square/Ashbury Heights/Cathedral Hill /Cole Valley/Lower Haight/Lower Pacific Heights/Hayes Valley/Japantown/Panhandle/Parnassus Heights	42
Civic Center/South of Market/Treasure Island/Yerba Buena Island/Mission Bay/Rincon Hill/Showplace Square/South Beach/Tenderloin	70
Balboa Terrace/Lakeshore/Clarendon Heights/Ingleside Terraces/Laguna Honda/Forest Hill/Forest Knolls/Golden Gate Heights/Merced Manor/Midtown Terrace/Miraloma Park/Monterey Heights/Mt. Davidson Manor/Parkmerced/St. Francis Wood/Sherwood Forest/Stonestown/Sunnyside/West Portal/Westwood Highlands/Westwood Park	22
Castro/Upper Market/Diamond Heights/Glen Park/Noe Valley/Buena Vista/Corona Heights/Dolores Heights/Duboce Triangle/Eureka Valley/Fairmount/Mint Hill	25
Mission Dolores/West of Twin Peaks/Twin Peaks	15
Bernal Heights/Mission/Holly Park/Peralta Heights/Portola/St. Mary's Park/University Mound	17
Bayview/Hunters Point/Potrero Hill/Visitacion Valley/Apparel City/Bret Harte/Candlestick Park NRA/Central Waterfront/Dogpatch/India Basin/Little Hollywood/McLaren Park/Produce Market/Silver Terrace/Sunnydale	33
Crocker Amazon/Excelsior/Outer Mission/Cayuga/Ingleside /Merced Heights /Mission Terrace/Ocean View	8
Total Respondents	294
(skipped this question)	147

3. How many years has this business been in operation in San Francisco?

	Response Total
Less than 1	24
1-2	10

2-5	49
5-10	49
10-20	44
20+	122
Total Respondents	298
(skipped this question)	144

4. Does this business have more than one location?

	Response Total
Yes	130
No	165
Total Respondents	295
(skipped this question)	147

4a. How many locations does this business have in San Francisco?

	Response Total
1	89
2	21
3-5	18
6-10	8
10+	11
Total Respondents	147
(skipped this question)	294

4b. How many locations does this business have outside of San Francisco?

	Response Total
0	28
1	24
2	19
3-5	22
"6-10"	10
10+	34
Total Respondents	137

(skipped this question)	304

4c. Is this business's headquarters operation in San Francisco?

	Response Total
Yes	94
No	53
Total Respondents	147
(skipped this question)	294

5. Does this business own or rent its business space in San Francisco? (If multiple locations then answer question for largest and/or most important location.)

	Response Total
Own	82
Rent	210
Total Respondents	292
(skipped this question)	149

5a. How much longer is your business committed to its existing space?

	Response Total
No lease	31
Less than 1 year	32
1-2 years	33
2-5 years	62
More than 5 years	60
Total Respondents	218
(skipped this question)	223

6. What percent of this firms' revenues are generated from its San Francisco location?

	Response Total
0-25%	62
25-50%	30
50-75%	41
75-100%	155

Total Respondents	288
(skipped this question)	153

7. What percentage of the San Francisco business revenues come from the following sources (choose the closest percentage)?

	0%	25%	50%	75%	100%	Response Total
Sales to other businesses within San Francisco	73	80	33	31	17	234
Sales to other businesses outside San Francisco	70	63	32	30	14	209
Sales to governments (local state national or foreign)	122	38	13	4	2	179
Sales to nonprofit organizations or institutions (local national or international)	114	52	4	4	3	177
Sales to consumers/general public	59	36	22	32	63	212

Total Respondents	282
(skipped this question)	159

8. What percentage of this business's San Francisco revenues come from web-based sales? (choose the closest percentage)

	Response Total
0%	224
25%	39
50%	12
75%	7
100%	4

Total Respondents	286
(skipped this question)	155

9. How many full-time workers did this business employ in San Francisco (including yourself) during the month of July 2006?

	Response Total
0	16
1-20	150
20-50	35
50-100	15
100-500	21
500-999	3
1000+	11

Total Respondents	251

(skipped this question)	190

10. How many part-time workers did this business employ in San Francisco (including yourself) during the month of July 2006?

	Response Total
0	75
1-5	112
6-20	35
20-50	12
50-100	8
100+	8
Total Respondents	250
(skipped this question)	191

11. The next two questions are about this business's purchases. First please indicate approximately what percentage of this business's total annual expenditures is spent annually on each type of purchase below (select the closest percentage).

	0%	5%	10%	20%	30%	40%	50% or more	Response Total
Raw materials consumed by the business (e.g. chemicals industrial supplies construction supplies paper/office supplies food for restaurants etc.)	42	63	32	21	28	7	36	229
Durables used by the business (e.g. equipment machinery and furniture) rental leasing and purchase	37	71	59	31	9	7	10	224
Photography and Printing services	76	90	27	10	5	2	3	213
Maintenance & repair services	74	94	32	7	5	1	1	214
Catering services	169	24	5	3	2	0	1	204
Facilities maintenance services (janitorial landscaping carpet cleaning)	97	74	21	6	4	1	4	207
Construction services	145	29	9	5	2	3	5	198
Waste disposal and remediation services	118	71	9	0	2	1	1	202
Security services	142	46	6	3	3	0	2	202
Professional Services (accounting legal consulting insurance)	24	99	55	24	13	2	11	228
Transportation (messengers taxis cargo/freight shipment business air transportation)	74	81	31	9	5	0	4	204
Total Respondents	238							
(skipped this question)	203							

12. Next please estimate the percentage of this business's purchases in each category that come directly from businesses in San Francisco as opposed to

coming from suppliers in another city through a catalog through the Internet or from another source. Again choose the closest percentage.

	0%	25%	50%	75%	100%	Response Total
Raw materials consumed by the business (e.g. chemicals industrial supplies construction supplies paper/office supplies food for restaurants etc.)	69	36	23	33	25	186
Durables used by the business (e.g. equipment machinery and furniture) rental leasing and purchase	64	50	25	26	24	189
Photography and Printing services	66	32	14	11	50	173
Maintenance & repair services	54	34	10	20	49	167
Catering services	110	8	7	7	26	158
Facilities maintenance services (janitorial landscaping carpet cleaning)	68	18	7	11	57	161
Construction services	98	10	7	9	32	156
Waste disposal and remediation services	80	15	4	5	55	159
Security services	107	11	6	2	26	152
Professional Services (accounting legal consulting insurance)	33	41	37	25	53	189
Transportation (messengers taxis cargo/freight shipment business air transportation)	61	39	19	16	40	175

Total Respondents	227
(skipped this question)	214

13. How important are each of the following factors in explaining why this business is located in San Francisco?

	Very Important	Important	Neutral	Not Important	Very Unimportant	Don't Know/Not Applicable	Response Average
Key executives / Company founders live in San Francisco	135	29	28	21	13	8	1.88
Key employees live in SF	58	60	43	26	15	21	2.41
Key suppliers and support services are in San Francisco	24	29	65	46	40	17	3.24
Prestige/image of San Francisco	61	78	35	25	17	10	2.35
Size of the San Francisco market	69	76	37	20	19	8	2.29
Access to international markets	21	32	52	46	51	23	3.37
Access to educated and skilled workers	52	71	40	25	20	17	2.47
Access to financing	18	33	72	40	37	23	3.23
Access to research and technology	15	35	64	46	42	19	3.32
Ease of doing business	44	40	67	18	38	19	2.84
Quality of life	78	75	33	16	12	10	2.11
San Francisco is the historical location of this business	87	44	33	9	26	29	2.21

Total Respondents	242
(skipped this question)	199

14. How does this business's current year sales compare with its 2005 sales at its San Francisco location(s)?

	Response Total
Same as last year	50
Sales increased by more than 10%	98
Sales increased by less than 10%	33
Sales declined by less than 10%	21
Sales declined by more than 10%	25
Total Respondents	227
(skipped this question)	214

15. How has this business's number of full-time employees changed since this time last year?

	Response Total
Same as last year	119
Expanded full time workforce by more than 10%	54
Expanded full time workforce by less than 10%	25
Reduced full time workforce by less than 10%	16
Reduced full time workforce by more than 10%	15
Replaced full time workers with part time workers.	5
Total Respondents	234
(skipped this question)	207

16. What are this business's 2007 sales expectations compared to 2006 sales at its San Francisco location(s)?

	Response Total
2007 will be about the same as 2006	62
2007 revenues will be greater than 2006 sales.	139
2007 revenues will be less than 2006 sales.	10
Don't know	27
Total Respondents	238
(skipped this question)	203

17. What are this business's plans with respect to its space in San Francisco between now and 2010?

	Response Total
We plan to expand, and only in San Francisco	41
We plan to expand both inside and outside of San Francisco.	42
We plan to expand outside of San Francisco and occupy the same amount of space in San Francisco in 2010 that we do now.	33
We plan to expand or stay the same outside of San Francisco and reduce or leave our space in San Francisco.	23
We plan to reduce total business space including reducing or leaving our space in San Francisco.	20
Don't know	76
Total Respondents	235
(skipped this question)	206

17a. Where outside of San Francisco does this business plan to expand its space? (check all that apply):

	Response Total
East Bay	39
Marin County	18
South Bay	17
Peninsula	29
Central Valley	12
Southern California	17
Somewhere else in California	18
Somewhere else in the U.S.	35
Somewhere else outside of the U.S.	15
Total Respondents	93
(skipped this question)	348

18. How important is the number of sites available for expansion in this business's plans to expand or reduce its San Francisco space?

	Response Total
Very Important	38
Important	45
Neutral	60
Not Important	40
Totally Irrelevant	53

Total Respondents	236
(skipped this question)	205

18a. How familiar are you with the following programs the City sponsors to assist businesses in finding sites?

	Heard of it and used it	Heard of it but never used it	Never heard of it	Response Average
SF Prospector	10	19	51	2.51
SF BizInfo	7	23	49	2.53

Total Respondents	81
(skipped this question)	360

18b. If you've used these programs how well did they address your business's concerns about the availability of sites? If you haven't used a program just leave that row blank.

	Exceptional	Adequate	Not adequate	Response Average
SF Prospector	3	6	8	2.29
SF Biz Info	0	7	6	2.46

Total Respondents	17
(skipped this question)	424

18c. Based on your experience if the city expanded each of the following programs would it encourage your business to grow in San Francisco? If you haven't used a program just leave that row blank.

	Very much	Somewhat	Not really	Not at all	Response Average
SF Prospector	5	6	12	5	2.61
SF Biz Info	2	4	13	5	2.88

Total Respondents	28
(skipped this question)	413

18d. Do you believe there are any actions that the city could take that would increase the availability of sites and encourage your business to grow in San Francisco?

Total Respondents	39

(skipped this question)	402

19. How important is the cost of business space in your plans to expand or reduce its San Francisco space?

	Response Total
Very Important	114
Important	76
Neutral	17
Not Important	14
Totally Irrelevant	19
Total Respondents	240
(skipped this question)	201

20. How important is access to markets in this business's plans to expand or reduce its San Francisco space?

	Response Total
Very Important	58
Important	73
Neutral	52
Not Important	32
Totally Irrelevant	19
Total Respondents	234
(skipped this question)	207

20a. How familiar are you with the following programs the City sponsors to assist businesses accessing international markets?

	Heard of it and used it	Heard of it but never used it	Never heard of it	Response Average
San Francisco International Trade Office	6	50	67	2.5
San Francisco Foreign Trade Zone	5	48	70	2.53
Bay Area World Trade Center	7	49	63	2.47
Total Respondents	123			
(skipped this question)	318			

20b. If you've used these programs how well did they address your business's concerns about accessing markets? If you haven't used a program just leave that row blank.

	Exceptional	Adequate	Not adequate	Response Average
San Francisco International Trade Office	0	7	5	2.42
San Francisco Foreign Trade Zone	1	6	2	2.11
Bay Area World Trade Center	0	9	2	2.18

Total Respondents	13
(skipped this question)	428

20c. Based on your experience if the city expanded each of the following programs would it encourage your business to grow in San Francisco? If you haven't used a program just leave that row blank.

	Very much	Somewhat	Not really	Not at all	Response Average
San Francisco International Trade Office	4	6	9	20	3.15
San Francisco Foreign Trade Zone	3	6	9	19	3.19
Bay Area World Trade Center	4	6	9	19	3.13

Total Respondents	40
(skipped this question)	401

20d. Do you believe there are any actions that the city could change or enact that would increase market access and encourage your business to grow in San Francisco?

Total Respondents	51
(skipped this question)	390

21. How important are city taxes and fees in this business's plans to expand or reduce its San Francisco space?

	Response Total
Very Important	122
Important	61
Neutral	32
Not Important	10
Totally Irrelevant	9

Total Respondents	234
(skipped this question)	207

21a. How important is each of the following specific taxes or costs to this business's decision to expand in San Francisco or not?

	Very Important	Important	Neutral	Not Important	Very Unimportant	N/A	Response Average
Payroll Tax	125	34	6	3	0	2	1.33
Property Tax	71	47	35	5	2	6	1.88
Sales Tax	49	28	52	10	10	9	2.36
Utility Tax	46	37	49	15	2	10	2.26
Lodging Tax (TOT)	22	20	37	23	11	44	2.83
Minimum wage ordinance	76	23	24	21	10	9	2.13
Health Care mandates	116	28	16	3	4	1	1.51
Sick leave mandates	116	25	17	3	3	1	1.49

Total Respondents	170
(skipped this question)	271

21b. How familiar are you with the following programs the City sponsors to reduce taxes and fees?

	Heard of it and used it	Heard of it but never used it	Never heard of it	Response Average
Online business tax filing	37	82	48	2.07
Biotechnology tax exclusion	0	84	82	2.49
Clean Energy Payroll Tax exemption	1	66	100	2.59
San Francisco Enterprise Zone Tax Credit	16	99	52	2.22
Energy Efficiency Incentives (Dept. of the Environment)	8	76	83	2.45

Total Respondents	169
(skipped this question)	272

21c. If you've used these programs how well did they address your business's concerns about taxes and fees? If you haven't used a program just leave that row blank.

	Exceptional	Adequate	Not adequate	Response Average
Online business tax filing	3	26	12	2.22
Biotechnology tax exclusion	0	4	7	2.64
Clean Energy Payroll Tax exemption	1	4	5	2.4
San Francisco Enterprise Zone Tax Credit	4	9	12	2.32
Energy Efficiency Incentives (Dept. of the Environment)	2	5	7	2.36

Total Respondents	54
(skipped this question)	387

21d. Based on your experience if the city expanded its investment in each of the following programs would it encourage your business to grow in San Francisco? If you haven't used a program just leave that row blank.

	Very much	Somewhat	Not really	Not at all	Response Average
Online business tax filing	6	13	26	49	3.26
Biotechnology tax exclusion	0	2	18	56	3.71
Clean Energy Payroll Tax exemption	10	11	16	42	3.14
San Francisco Enterprise Zone Tax Credit	13	23	13	39	2.89
Energy Efficiency Incentives (Dept. of the Environment)	12	15	15	37	2.97

Total Respondents	105
(skipped this question)	336

21e. Do you believe there are any taxes or fees the city could reduce that would encourage your business to grow in San Francisco?

Total Respondents	86
(skipped this question)	355

22. How important is the city permitting process and the general ease of dealing with city government in this business's plans to expand or reduce its San Francisco space?

	Response Total
Very Important	85
Important	55
Neutral	44
Not Important	20
Totally Irrelevant	14

Total Respondents	218
(skipped this question)	223

22a. How familiar are you with the following programs the City sponsors to assist businesses with the permitting process and general dealings with city government?

	Heard of it and used it	Heard of it but	Never heard of	Response Average

		never used it	it	
Small Business Commission	33	75	23	1.92
SF BizInfo	13	47	66	2.42
Business tab on SFGOV.org	27	48	51	2.19
Film Commission	3	86	39	2.28
Small Business Development Center (City College program)	10	49	69	2.46
Total Respondents	132			
(skipped this question)	309			

22b. If you've used these programs how well did they address your business's concerns about permitting and dealing with the city? If you haven't used a program just leave that row blank.

	Exceptional	Adequate	Not Adequate	Response Average
Small Business Commission	8	16	14	2.16
SF BizInfo	2	10	8	2.3
Business tab on SFGOV.org	2	17	11	2.3
Film Commission	2	2	5	2.33
Small Business Development Center (City College program)	4	6	7	2.18
Total Respondents	55			
(skipped this question)	386			

22c. Based on your experience if the city expanded its investment in each of the following programs would it encourage your business to grow in San Francisco? If you haven't used a program just leave that row blank.

	Very much	Somewhat	Not really	Not at all	Response Average
Small Business Commission	19	18	15	14	2.36
SF BizInfo	8	16	14	16	2.7
Business tab on SFGOV.org	4	16	18	16	2.85
Film Commission	3	6	14	24	3.26
Small Business Development Center (City College program)	7	15	11	19	2.81
Total Respondents	74				
(skipped this question)	367				

22d. Do you believe there are any actions the city could take that would improve the permitting process make it easier to deal with the city and encourage your business to grow in San Francisco?

Total Respondents	55
(skipped this question)	386

23. How important is access to qualified workers at competitive wages in this business's plans to expand or reduce its San Francisco space?

	Response Total
Very Important	87
Important	74
Neutral	34
Not Important	7
Totally Irrelevant	10
Total Respondents	212
(skipped this question)	229

23a. How familiar are you with the following programs the City sponsors to assist businesses in finding workers with appropriate skills?

	Heard of it and used it	Heard of it but never used it	Never heard of it	Response Average
First Source Hiring	5	35	105	2.69
Express to Success Employment Centers DHS	3	19	122	2.83
Citybuild	3	31	110	2.74
PIC's Employer Services Program	6	30	108	2.71
SFWORKS' Business Engagement	4	43	99	2.65
SF Career Link	1	44	99	2.68
Asian Neighborhood Design	6	31	108	2.7
Bay Area Video Coalition	7	26	111	2.72
Jewish Vocational Services	14	50	83	2.47
Arriba Juntos	7	26	112	2.72
Community Vocational Enterprises	4	24	117	2.78
Mission Hiring Hall Inc.	6	35	102	2.67
San Francisco Vocational Services	2	39	104	2.7
Mission Language & Vocational School	4	25	111	2.76
Toolworks	1	23	119	2.83
Shirley Ware Education Center/SEIU Local 250	0	12	129	2.91
Rose Resnick Lighthouse for the Blind	1	61	80	2.56
Glide Foundation	5	97	43	2.26

Total Respondents	150
(skipped this question)	291

23b. If you've employed graduates from these programs how well did they meet your needs for qualified workers? If you haven't used a program just leave that row blank.

	Exceptional	Adequate	Not adequate	Response Average
First Source Hiring	0	3	3	2.5
Express to Success Employment Centers DHS	1	2	2	2.2
Citybuild	0	2	3	2.6
PIC's Employer Services Program	0	0	3	3
SFWORKS' Business Engagement	0	1	2	2.67
SF Career Link	0	2	2	2.5
Asian Neighborhood Design	1	1	1	2
Bay Area Video Coalition	0	2	1	2.33
Jewish Vocational Services	4	5	2	1.82
Arriba Juntos	1	0	2	2.33
Community Vocational Enterprises	1	0	2	2.33
Mission Hiring Hall Inc.	2	1	2	2
San Francisco Vocational Services	0	0	1	3
Mission Language & Vocational School	2	0	1	1.67
Toolworks	0	0	1	3
Shirley Ware Education Center/SEIU Local 250	0	0	0	0
Rose Resnick Lighthouse for the Blind	0	1	0	2
Glide Foundation	0	0	4	3

Total Respondents	25
(skipped this question)	416

23c. Based on your experience if the city expanded its investment in each of the following programs would it encourage your business to grow in San Francisco? If you haven't used a program just leave that row blank.

	Very much	Somewhat	Not really	Not at all	Response Average
First Source Hiring	1	3	4	29	3.65
Express to Success Employment Centers DHS	2	2	4	28	3.61
Citybuild	2	2	4	28	3.61
PIC's Employer Services Program	2	2	4	28	3.61
SFWORKS' Business Engagement	1	7	2	27	3.49

SF Career Link	2	2	3	29	3.64
Asian Neighborhood Design	1	4	3	29	3.62
Bay Area Video Coalition	0	3	4	29	3.72
Jewish Vocational Services	4	6	3	27	3.33
Arriba Juntos	3	1	5	27	3.56
Community Vocational Enterprises	2	2	3	29	3.64
Mission Hiring Hall Inc.	3	2	5	28	3.53
San Francisco Vocational Services	1	3	3	29	3.67
Mission Language & Vocational School	1	2	3	29	3.71
Toolworks	1	3	3	29	3.67
Shirley Ware Education Center/SEIU Local 250	1	1	3	29	3.76
Rose Resnick Lighthouse for the Blind	0	3	4	27	3.71
Glide Foundation	2	2	3	30	3.65

Total Respondents	54
(skipped this question)	387

23d. Do you believe there are any actions that the city could take that would improve the quality or reduce the cost of workers and encourage your business to grow in San Francisco?

Total Respondents	65
(skipped this question)	376

24. How important is the availability of capital for expansion in this business's plans to expand or reduce its San Francisco space?

	Response Total
Very Important	35
Important	47
Neutral	69
Not Important	29
Totally Irrelevant	24

Total Respondents	204
(skipped this question)	237

24a. How familiar are you with the following programs the City sponsors to assist businesses in obtaining financing?

	Heard of it and used it	Heard of it but never used it	Never heard of it	Response Average

Small Business Administration	28	42	7	1.73
SFEarn	1	16	58	2.76
MOCD Microenterprise Loan Program	0	29	47	2.62
MOCD Small Business Revolving Loan Fund	1	28	47	2.61
MOCD Section 108 Loan Fund	0	21	55	2.72

Total Respondents	78
(skipped this question)	363

24b. If you've used these programs how well did they address your business's concerns about access to capital? If you haven't used a program just leave that row blank.

	Exceptional	Adequate	Not adequate	Response Average
Small Business Administration	13	12	7	1.81
SFEarn	2	0	0	1
MOCD Microenterprise Loan Program	0	0	2	3
MOCD Small Business Revolving Loan Fund	1	0	2	2.33
MOCD Section 108 Loan Fund	0	0	1	3

Total Respondents	33
(skipped this question)	408

24c. Based on your experience if the city expanded its investment in each of the following programs would it encourage your business to grow in San Francisco? If you haven't used a program just leave that row blank.

	Very much	Somewhat	Not really	Not at all	Response Average
Small Business Administration	12	12	8	6	2.21
SFEarn	3	1	4	7	3
MOCD Microenterprise Loan Program	5	1	4	7	2.76
MOCD Small Business Revolving Loan Fund	6	2	4	7	2.63
MOCD Section 108 Loan Fund	4	2	4	7	2.82

Total Respondents	40
(skipped this question)	401

24d. Do you believe there are any actions that the city could take that would increase access to capital and encourage your business to grow in San Francisco?

Total Respondents	26

(skipped this question)	415

25. How important is access to telecommunications infrastructure in this business's plans to expand or reduce its San Francisco space?

	Response Total
Very Important	28
Important	60
Neutral	74
Not Important	24
Totally Irrelevant	13
Total Respondents	199
(skipped this question)	242

25a. How familiar are you with the City's plan to deploy a universal wi-fi network to ensure Internet access for residents and businesses in the City?

	Response Total
I'm familiar with it.	79
I'm not familiar with it.	7
Total Respondents	86
(skipped this question)	355

25b. If you've heard of this program how likely would be this business be to utilize each of these options?

	Definitely	Maybe	Probably not	Definately not	Response Average
Free low-bandwidth Wi-Fi Internet service	35	18	15	14	2.1
High-bandwidth Wi-Fi Internet service for a small monthly charge	28	36	12	7	1.98

Total Respondents	86
(skipped this question)	355

25c. Do you believe there are any actions that the city could take that would increase access to telecommunications and encourage your business to grow in San Francisco?

Total Respondents	29
(skipped this question)	412

26. How important is access to professional or support services in this business's plans to expand or reduce its San Francisco space?

	Response Total
Very Important	24
Important	53
Neutral	89
Not Important	23
Totally Irrelevant	10
Total Respondents	199
(skipped this question)	242

26a. How familiar are you with the following programs the City sponsors to provide businesses with technical assistance?

	Heard of it and used it	Heard of it but never used it	Never heard of it	Response Average
Mission Economic Development Agency	4	25	41	2.53
Urban Solutions	3	19	46	2.63
Small Business Development Center	8	35	27	2.27
Southeast Asian Community Center	1	19	49	2.7
Northeast Community Federal Credit Union	0	11	57	2.84
Renaissance Entrepreneurship Center	7	34	30	2.32
Bayview Business Resource Center	4	20	45	2.59
LGBT Community Center	2	36	31	2.42
Asian Inc.	1	17	50	2.72
Women's Initiative for Self-Employment	2	32	36	2.49
Encore Project	1	13	54	2.78
Small Business Administration	20	41	10	1.86
Total Respondents	72			
(skipped this question)	369			

26b. If you've used these providers how well did they address your business's concerns about support and technical assistance? If you haven't used a program just leave that row blank.

	Exceptional	Adequate	Not adequate	Response Average
Mission Economic Development Agency	2	2	2	2
Urban Solutions	2	4	1	1.86
Small Business Development Center	2	5	3	2.1
Southeast Asian Community Center	0	0	1	3

Northeast Community Federal Credit Union	0	0	1	3
Renaissance Entrepreneurship Center	6	1	0	1.14
Bayview Business Resource Center	3	0	0	1
LGBT Community Center	3	1	1	1.6
Asian Inc.	0	1	0	2
Women's Initiative for Self-Employment	3	1	2	1.83
Encore Project	0	1	1	2.5
Small Business Administration	12	8	3	1.61

Total Respondents	32
(skipped this question)	409

26c. Based on your experience if the city expanded its investment in each of the following programs would it encourage your business to grow in San Francisco? If you haven't used a program just leave that row blank.

	Very much	Somewhat	Not really	Not at all	Response Average
Mission Economic Development Agency	2	2	1	8	3.15
Urban Solutions	2	1	5	6	3.07
Small Business Development Center	7	4	2	5	2.28
Southeast Asian Community Center	1	1	1	7	3.4
Northeast Community Federal Credit Union	1	1	1	7	3.4
Renaissance Entrepreneurship Center	7	1	2	6	2.44
Bayview Business Resource Center	4	0	1	7	2.92
LGBT Community Center	2	3	1	6	2.92
Asian Inc.	1	1	1	7	3.4
Women's Initiative for Self-Employment	1	3	2	7	3.15
Encore Project	1	1	2	7	3.36
Small Business Administration	12	9	2	5	2

Total Respondents	34
(skipped this question)	407

26d. Do you believe there are any actions that the city could take that would increase the availability of support services and encourage your business to grow in San Francisco?

Total Respondents	20
(skipped this question)	421

27. How important is the quality of the area the business is located in to this business's plans to expand or reduce its San Francisco space?

	Response Total
Very Important	68
Important	85
Neutral	33
Not Important	7
Totally Irrelevant	5
Total Respondents	198
(skipped this question)	243

27a. How familiar are you with the following programs the City sponsors to enhance the safety and quality of major business areas?

	Heard of it and used it	Heard of it but never used it	Never heard of it	Response Average
Community Benefit Districts	14	48	78	2.46
Neighborhood Commercial Corridor Revitalization	8	47	87	2.56
Project SAFE (liaison to SFPD)	16	51	74	2.41
SFPD CrimeMAPS	25	28	86	2.44
Total Respondents	144			
(skipped this question)	297			

27b. If these programs have been used in your area how well have they address your business's concerns about the business area? If these programs have not been used in your area or you have not used them just leave that row blank.

	Exceptional	Adequate	Not adequate	Response Average
Community Benefit Districts	9	8	10	2.04
Neighborhood Commercial Corridor Revitalization	3	6	7	2.25
Project SAFE (liaison to SFPD)	3	16	10	2.24
SFPD CrimeMAPS	7	13	9	2.07
Total Respondents	51			
(skipped this question)	390			

27c. Based on your experience if the city expanded its investment in each of the following programs would it encourage your business to grow in San Francisco? If you haven't used a program just leave that row blank.

	Very much	Somewhat	Not really	Not at all	Response Average
Community Benefit Districts	20	10	12	11	2.26

Neighborhood Commercial Corridor Revitalization	10	8	11	11	2.58
Project SAFE (liaison to SFPD)	12	15	12	11	2.44
SFPD CrimeMAPS	12	17	12	10	2.39

Total Respondents	70
(skipped this question)	371

27d. Do you believe there are any actions that the city could take that would increase the level of law enforcement and encourage your business to grow in San Francisco?

Total Respondents	43
(skipped this question)	398

28. How important is the quality and/or cost of transit service in this business's plans to expand or reduce its San Francisco space?

	Response Total
Very Important	42
Important	70
Neutral	56
Not Important	18
Totally Irrelevant	9

Total Respondents	195
(skipped this question)	246

28a. How important are the following transit providers and facilities to this business and its employees?

	Very Important	Somewhat Important	Not important	Response Average
MUNI	60	7	0	1.1
BART	51	12	3	1.27
AC Transit	18	28	20	2.03
Golden Gate	17	28	21	2.06
CalTrain	20	23	20	2
SamTrans	14	23	27	2.2
Ferries	16	29	21	2.08
Bike lanes	12	26	27	2.23

Total Respondents	67
(skipped this question)	374

28b. How would you assess the quality of these transit providers and facilities in San Francisco in terms of timeliness reliability cost etc? If you haven't used a transit provider just leave that row blank.

	Exceptional	Adequate	Not adequate	Response Average
MUNI	3	32	29	2.41
BART	15	41	3	1.8
AC Transit	3	32	3	2
Golden Gate	5	26	3	1.94
CalTrain	8	27	4	1.9
SamTrans	1	28	3	2.06
Ferries	4	26	5	2.03
Bike lanes	0	26	12	2.32

Total Respondents	64
(skipped this question)	377

28c. Do you believe there are any actions that the city could take that would increase the level of transit service and encourage your business to grow in San Francisco?

Total Respondents	34
(skipped this question)	407

29. How important is the cost and/or availability of parking for this business's customers in its plans to expand or reduce its San Francisco space?

	Response Total
Very Important	78
Important	56
Neutral	36
Not Important	15
Totally Irrelevant	9

Total Respondents	194
(skipped this question)	247

30. How important is the cost and/or availability of parking for this business's employees in its plans to expand or reduce its San Francisco space?

	Response Total
Very Important	62

Important	53
Neutral	47
Not Important	20
Totally Irrelevant	14
Total Respondents	196
(skipped this question)	245