Deconstructing and Understanding the Employment Dynamics of the San Mateo County Economy

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Executive Summary

San Mateo County is no stranger to significant swings in overall employment. Indeed, between 1995 and 2000, overall employment increased by more than 30%, with the number of positions in particular sectors increasing by as much as 180%. Since 2000, employment has fallen, increased, and fallen again, so that by 2010 it was only 6% above its 1995 level. These dynamics are not unique to San Mateo County; both San Francisco and Santa Clara counties have been subject to even greater fluctuations in employment.

Knowing, however, that the county is dynamic and in good company is only so useful for developing appropriate programs and policies for either economic or workforce development. Of greater use is an understanding of the underlying influences on the overall employment dynamics of the region. That is, what are the sources of job creation and job destruction? How has each of these sources contributed to the overall employment picture in San Mateo County?

Jobs are created through the birth of new business establishments, the expansion of existing establishments, and the movement into the area of existing establishments. Similarly, jobs are destroyed by the death, contraction, or exit of existing local establishments. This job churn is enormous relative to the changes that are observed in aggregate employment. In an average year in San Mateo County, 9.0% of all jobs will disappear. At the same time, jobs amounting to 10.1% of existing employment will be created. In this, San Mateo County is again not unique, but it does exhibit more "churn" in its employment than any other county in the Bay Area.

From 1995 to 2008, births and deaths played the biggest role in employment changes locally. The birth of new businesses accounted for more than 50% of all jobs created, and business deaths were responsible for almost 60% of all jobs destroyed. The actual movement of business establishments into or out of the county was the smallest source of job creation or destruction. In an average year, the number of jobs created by businesses moving into the county adds 9.1% of total employment, while the number of jobs lost when businesses move out of the county reduces employment by 12.5%. The county is therefore a net exporter of jobs.

Historically, Santa Clara County has been San Mateo County's largest jobs trading partner. From 1995 to 2008, in excess of 20,000 jobs moved from Santa Clara County to San Mateo County, while just over 17,000 jobs moved from San Mateo to Santa Clara. San Mateo County has a large trade surplus (exports of jobs exceed imports) with the East Bay. Alameda and Contra Costa counties are the destinations of choice for many businesses moving out of San Mateo; far fewer make the reverse move into San Mateo.

Much of this churn is accounted for by three large sectors of San Mateo County's economy: manufacturing; professional, scientific, and technical services; and information. Manufacturing contributes the largest outflow of jobs, exporting the equivalent of 2.3% of local manufacturing jobs and importing just 1.3%. At the same time, manufacturing establishments in the county contribute significantly to employment growth through expansion. However, because the death of businesses exceeds new business births, manufacturing continues to be a drag on overall county employment levels.

The information sector and the professional, scientific, and technical services sector (PSTS) are the two largest contributors to employment growth. They are both net importers of jobs, but where they really make their contribution is through the expansion of existing establishments. Existing information-related firms add 7% to employment in the sector even after accounting for employment declines. In the average year between 1995 and 2008,

businesses in the information sector added five jobs through growth and expansion for every job lost because of a business contraction.

These sectors also contribute significantly to the churn in local employment through births and deaths. Over the period, the birth of businesses and business deaths were approximately equal in both sectors, but this overshadows the large number of both births and deaths that occur. In an average year, births and deaths create and destroy jobs at roughly the same rate of 6.7% of employment in the PSTS sector. The information sector has a slightly lower rate, but it is still high at 5.1%.

New businesses play a significant role in the underlying dynamics of the San Mateo County economy. In an average year, the number of new businesses is equivalent to about 10% of the existing number of establishments in the county. This is a bit below the average in both the Bay Area overall and the state, but it is nonetheless a high rate of business creation. Information is a key sector in which births occur, generating new establishments at a rate of 12.6% each year.

An important driver of this startup activity is venture capital funding. In 2010, establishments in San Mateo County received venture capital funding at a rate that is exceeded only by Santa Clara County. In terms of the dollar value of investments received, industries in the county rank in the top 10 nationwide in all but three of the industries tracked by the PWC MoneyTree website. In 2010, biotech and computer software were particularly large recipients, pulling in more than a half billion dollars each. Although these investments are not enough to drive growth in the county, they are significant in that they project a healthy and thriving business community in the county going forward. Local businesses are at the forefront of development in a wide variety of commercial areas.

As indicated above, the number of establishments moving out of the county is relatively small. But another concern is that firms headquartered in San Mateo County will make new location decisions as they grow larger, displacing job growth in the county. If firms headquartered locally are choosing to expand employment outside of the county, this is a sign that they perceive potential limitations in the local business environment.

In 1995, locally headquartered firms kept 55% of their employees in San Mateo County. In the subsequent 10 years, this proportion declined significantly, to just 45% in 2005. Since then, this share has stopped its decline and held steady at roughly 46%. The recent trend has been slightly favorable and is driven by a wide variety of industries in the county, perhaps suggesting that there has been some improvement in the local business environment.

Another way of examining this issue is to look at the behavior of establishments born in the county and at the geographical patterns of their employment after 10 years. Such an analysis reveals that these establishments continue to maintain 82% of their employment in the local economy. This figure is high, but significantly lower than that of the Bay Area as a whole, at 88.6%. Relative to its peer counties, however, San Mateo is consistent, with a retention rate similar to that of Alameda (81.4%) and Santa Clara (81.8%) and a significantly higher rate than San Francisco (77.4%). San Francisco has the lowest retention rate of any county in the state.

Overall, such dynamism is important for an economy. The changes help to prevent the economy from growing old or soft, allowing it to continue to reinvent and reshape itself. An understanding of these phenomena leads to important lessons for the county: the primary contributors to job growth are existing established businesses, the county is a net exporter of jobs, and the primary source of exported jobs is the manufacturing sector. These and other salient facts from an analysis of business dynamics are vital to building a sound and successful economy that continuously creates – and destroys – good, high-paying jobs.

Introduction

In the wake of the worst recession since the end of World War II, it has become critical for public agencies and other organizations to better understand the impact of their local business climate on employment growth and dynamics.

Business climate is a catchall phrase for the relative merits of doing business in one location relative to alternatives. Most often used to mean the burden of local business regulations, business climate aspects really come in three broad categories: the characteristics of the local labor force (education), the local facilities for conducting business (infrastructure), and, of course, the regulations that govern the conduct of business (regulatory environment). These are the three legs of the business climate stool: education, infrastructure, and the regulatory environment. Each of these three forces acts to drive business dynamics and hence employment dynamics in the local economy. There are other forces at work, such as the overall health of the broader U.S. and global economies. However, these forces are largely outside of a given region's influence.

Understanding the dynamics of the local economy as they compare to other regions is crucial for evaluating the influence of the local business climate. These dynamics are on both the employment demand and supply sides. With regard to labor supply, the San Mateo economy does not exist in a vacuum or in relative isolation from other sources of labor. Indeed, in 2009, only 39.7% of those employed in San Mateo County lived in the county. Similarly, of the workers who live in San Mateo County, only 40.3% work in the county. The county is both a major exporter and importer of labor.

With regard to labor demand, previous reports have provided an indication of employment dynamics at the industry level. The regularly published data indicate that there have been significant swings in overall employment - up with the dot-com bubble, down with its bursting - and significant shifts across industries. What these large swings in overall employment mask is the underlying dynamics of the economy. Within industries, even those that appear quite stable over time, there are significant changes that are not well documented. Understanding the underlying dynamics provides an opportunity to learn more about the overall business climate. Understanding the nature of employment changes, such as whether the expansion and contraction of existing businesses is a driving force, or whether births and deaths play a major role, is crucial to understanding how best to facilitate employment growth locally.

As an example at the county level, in an average year between 1995 and 2008, 9.1% of all the jobs in the San Mateo County economy were destroyed. At the same time, the equivalent of 10.1% of all jobs were new. This is not jobs changing hands from one employee to another; this is the end of some jobs, through downsizing, through establishment deaths, or through establishments moving out of the county. It is also the start of new jobs due to the creation of new positions at existing establishments, the birth of new establishments, or the movement of establishments into the county from some other location. The notion that this much turnover is occurring even though total employment in the county might simply be increasing by 1% or 2% is not widely or well understood. This report will provide an understanding of the size and nature of the underlying dynamics in San Mateo County's demand for labor.

A primary focus of this report is on the employment patterns at individual business establishments within industries. A business establishment is distinct from a firm in that an establishment represents a single business

location, while a firm may have operations at more than one location. The Starbucks two blocks to the south and the Starbucks two blocks to the north are separate business establishments, but are part of the same firm. In the results below, if one Starbucks reduces its employment by one worker and the other increases its employment by one worker, this will have meaning.

Were we to consider the employment patterns of the Starbucks firm, these changes would not be observed. Similarly, if one of these Starbucks hires another worker and the Peet's down the street reduces employment by one person, this would have meaning in either an analysis of establishments or firms, but would not be reflected in the data regularly released by California's Employment Development Division.

This report provides substantial detail regarding the underlying phenomena that generate the overall employment dynamics of San Mateo County. With this detail in hand, local economic development and public policy officials will have a better understanding of the primary drivers of employment growth and decline. Relating the local drivers to those in other regions will provide insight into the strengths and weaknesses of the local business climate.

The findings of this report are many. First, business establishment movements are a relatively small part of the employment dynamics of the county. Second, job losses through establishment deaths are the leading drag on employment growth. While this finding is not terribly surprising, the overall contribution of deaths to job destruction is remarkable. It is also a ripe area for policy assistance. Third, the preponderance of deaths are among businesses less than five years old. Fourth, there is a great deal of job churn in all industries. This includes industries in secular decline, such as manufacturing. From a workforce development perspective, this suggests that training should not only focus on those industries that are expanding at the aggregate level. Finally, business establishments in San Mateo County are clearly at the forefront of their respective fields. Venture capital flows into the county in amounts exceeded only by business establishments in Santa Clara County.

Employment Patterns in the San Mateo County Economy

Employment Concentrations

Key to understanding the importance of various employment dynamics is an awareness of the characteristics of the overall economy. Table 1 presents the distribution of jobs by industry within the San Mateo County economy. Also presented is data designed to indicate whether or not large shares make an industry special in the local economy, or merely reflect a large share of overall employment in the U.S., California, or Bay Area economies. As an example, retail trade establishments in San Mateo County provided 32,970 jobs in 2010, which represented 10.9% of countywide employment. The "location quotients" relative to the U.S. economy, the California economy, and the rest of the Bay Area are all 1.0. This indicates that a 10.9% employment share is common and to be expected.

Table 1: Job Distribution and Relative Concentrations by industry in San Mateo County, 2010

	2010 Employment		Location Quotient*		
Industry	No. of Jobs	Share	v. U.S.	v. California	v. Bay Area
Ag., Forestry, Fishing and Hunting	1,736	0.6	0.6	0.2	0.9
Mining	33	0.0	0.0	0.1	0.4
Utilities	1,552	0.5	0.7	0.8	1.1
Construction	12,840	4.2	0.9	1.0	0.9
Manufacturing	26,555	8.8	0.9	0.9	0.8
Wholesale Trade	11,286	3.7	0.8	0.8	0.9
Retail Trade	32,970	10.9	0.9	0.9	1.0
Transportation and Warehousing	26,186	8.6	2.1	2.4	3.3
Information	18,072	6.0	2.5	1.8	1.5
Finance and Insurance	13,176	4.3	0.9	1.1	1.0
Real Estate and Rental and Leasing	5,432	1.8	1.1	0.9	1.0
Prof., Sci., and Tech. Services	37,609	12.4	1.9	1.6	1.1
Admin. Support and Waste Mgmt. Srvcs.	17,688	5.8	0.9	0.9	1.0
Educational Services	5,053	1.7	0.8	0.8	0.6
Health Care and Social Assistance	28,737	9.5	0.6	0.8	0.8
Arts, Entertainment, and Recreation	5,778	1.9	1.0	0.9	1.0
Accommodation and Food Services	28,691	9.5	1.0	1.0	1.0
Other Services (except Public Admin.)	13,974	4.6	1.2	0.8	0.8
Public Administration	10,482	3.5	0.5	0.6	0.7
Other	734	0.2	1.8	0.6	1.0

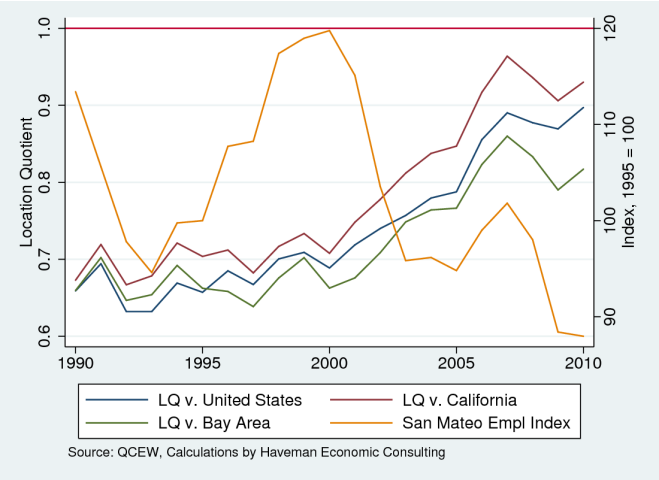
Source: QCEW, Calculations by Haveman Economic Consulting
* A "Location Quotient" is the ratio of the industry's share of employment in San Mateo County relative to the another region.

At the same time, professional, scientific, and technical services account for 12.4% of employment, or 37,609 jobs. The location quotient versus the U.S. economy is 1.9, indicating that the share in San Mateo County is twice that in the rest of the country. It is 1.0 relative to the rest of the Bay Area, indicating relative parity, and 1.6 relative to California. These latter two statistics reinforce the notion that the Bay Area is a relatively skill-intensive region.

Other sectors that are overrepresented in San Mateo County include transportation and warehousing, and information, with location quotients versus the U.S. at 2.1 and 2.5, respectively. Both sectors are heavily concentrated in the county relative to the Bay Area and California overall, with transportation and warehousing having a particularly high regional presence - entirely attributable to the presence of the San Francisco International Airport in the county.

Other industries worthy of note include manufacturing, and finance and insurance. Manufacturing continues to have a significant presence in the county, accounting for 8.8% of all employment in 2010, but the sector is underrepresented relative to the rest of the region (Figure 1). Although the sector has suffered significant declines in employment since 2000, as it has nearly everywhere, the concentration of employment in the county relative to other locations has been increasing. In particular, relative to the Bay Area, the location quotient was 0.67 in 2000, indicating that it was roughly two-thirds of its concentration elsewhere, but by 2010 it had increased to 0.84 (rounded to 0.8 in the table above).

Figure 1: Employment in Manufacturing in San Mateo County



This growth in concentration is because San Mateo County has always been a place with a greater concentration of manufacturing R&D relative to production. As the industry gains in efficiency, San Mateo County has tended to lose relatively fewer jobs than have other regions: efficiency displaces production workers more readily than it does workers engaged in product development.

The trend of an increasing concentration in manufacturing in San Mateo County relative to other locations is driven by four specific sectors within manufacturing:

- Medical Equipment and Supplies Manufacturing,
- Navigational, Measuring, Electromedical, and Control Instruments Manufacturing,
- Semiconductor and Other Electronic Component Manufacturing, and
- Communications Equipment Manufacturing.

Each of these sectors is showing a strong trend toward increased concentration relative to other regions, with some increasing employment in recent years; this trajectory goes against the grain of declining overall manufacturing employment.

Establishment Size

In the context of employment dynamics, the size of establishments plays a significant role. This is especially true when it comes to fashioning policy. The set of business services that might be provided in pursuit of a particular goal is often different depending on whether the target establishment is big or small. In San Mateo County, the vast majority of establishments are very small (Table 2). Nearly two-thirds of all establishments have one or two employees. This is a proportion that is comparable to the broader Bay Area, with slight differences between North County and South County; small establishments are more common in southern San Mateo County. Nearly all establishments have fewer than 100 employees, with less than 1% having more than 100 employees.

Table 2: Distribution of Business Establishments and Distribution of Employment by Size of Establishment, 2008

Region	Number of Employees 1-2	3-25	26-100	101-250	251-1,000	1,001+
Distribution of Establishments (%)						
California	66.5	29.7	3.1	0.5	0.2	0.0
Bay Area	66.3	29.7	3.3	0.5	0.2	0.0
San Mateo County	65.9	30.1	3.4	0.5	0.1	0.0
North San Mateo County	65.0	30.8	3.6	0.5	0.1	0.0
South San Mateo County	67.1	29.1	3.1	0.5	0.2	0.0
Distribution of Employment (%)						
California	15.3	30.6	23.6	11.3	11.2	8.1
Bay Area	14.3	29.5	24.3	11.3	11.4	9.2
San Mateo County	14.3	29.7	24.4	11.3	8.3	12.1
North San Mateo County	14.8	31.9	27.5	11.3	7.4	7.1
South San Mateo County	13.6	27.2	21.0	11.3	9.2	17.7

Source: NETS 2009, Calculations by Haveman Economic Consulting

Not surprisingly, we see a very different story when looking at the distribution of employment across business establishments of different sizes. Although they make up two-thirds of all establishments, the very smallest businesses employ less than 15% of all workers. Some 54% of all employees are at establishments that support between 3 and 100 employees, with just over 30% at establishments with more than 100 employees. The very largest business establishments in the county are in the south. Oracle is the largest employer in the county and, located in Redwood City, is also the largest employer in the South County. In the North County, the largest employers are Franklin Templeton and Genentech.

The share of employees is more evenly distributed across business sizes than are the establishments themselves. Although two-thirds of all establishments have either one or two employees, these small establishments account for only 14.3% of all jobs. Despite being a negligible share of all establishments, those with more than 100 employees contribute nearly one-third of all jobs in the county. This is a proportion that is consistent with employment patterns in both the broader Bay Area and the state.

Business and Employment Dynamics: Job Churn

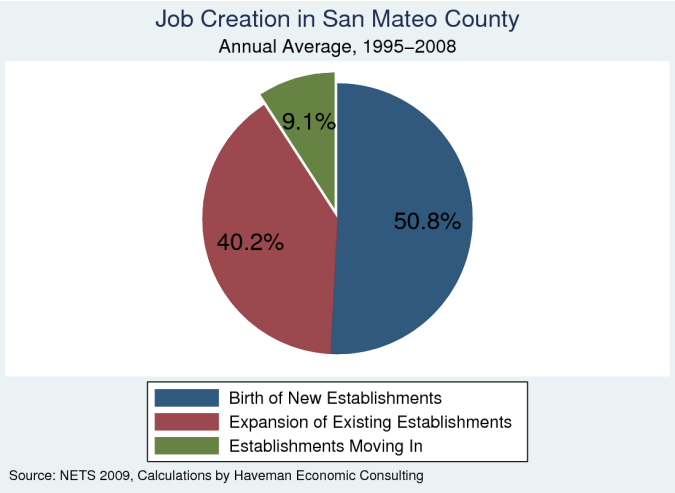
Job churn is distinct from job turnover in that it reflects the appearance and disappearance of jobs. Job turnover or replacement is the substitution of one individual for another in the same job. Job turnover has to do with people, while job churn has to do with employment positions.

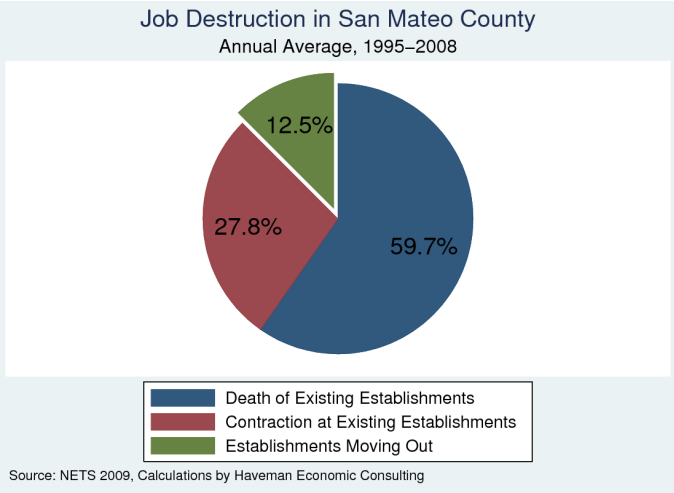
There are two sources of job churn: those that create jobs and expand overall employment levels and those that destroy jobs and reduce overall employment levels. Each type has three specific sources and these three sources each have a comparable and offsetting component of the other type:

- Births offset deaths.
- Expansions offset contractions.
- Establishments moving in offset establishments moving out.

Among the sources of job creation in San Mateo County, establishment births play a very important role. Accounting for more than 50% of all new jobs in a given year, births are the single largest source of job creation (Figure 2). Expansions contribute another 40.2%, while establishments moving in account for just 9.1%. In discussions of business dynamics, it is generally the case that moves receive the lion's share of attention. At the same time, they are the smallest component of job creation in San Mateo County.

Figure 2: Job Creation and Job Destruction





Moves play a larger role in job losses, accounting for 12.5% of all jobs destroyed in an average year. However, they remain relatively unimportant as a source of job destruction. Deaths of existing business establishments account for 59.7% of all job destruction, while contractions, or downsizing, account for just over one-quarter.

Job churn in San Mateo is greater than in most of the rest of the Bay Area (Table 3). In an average year, jobs are created at a rate of 10.1 for every 100 existing jobs. Region-wide, the same rate is just 9.1. Similarly, jobs are destroyed in the county at a rate of 9 jobs for every 100 existing jobs. This pattern of job creation rates exceeding job destruction rates is common to regions where employment has been generally expanding. San Francisco is the

lone part of the Bay Area where job destruction has exceeded job creation. This is mirrored somewhat in the difference between northern San Mateo County and southern San Mateo County. The gap between the job creation and job destruction is positive in both areas, but is much narrower in the North County than in the South County.[1] This observation suggests that employment growth is greater in the South County than in the North County.[2]

Table 3: Sources of Job Creation and Job Destruction by Region
(Average Annual Figures: 1995-2008, % of Total)

	Job Creation			Job Destruction			Job Churn	
Region	Births	Growth	Move In	Deaths	Contraction	Move Out	Creation	Destruction
San Mateo County	50.8	40.2	9.1	59.7	27.8	12.5	10.1	9.0
North San Mateo County	50.4	37.2	12.4	63.0	24.0	12.9	9.9	9.1
South San Mateo County	48.1	39.6	12.3	51.7	30.1	18.2	10.9	9.5
Bay Area	54.7	43.2	2.0	64.8	31.6	3.6	9.1	8.3
Alameda	51.8	39.7	8.6	62.0	30.5	7.4	9.5	8.5
Contra Costa	56.9	36.0	7.1	64.9	28.6	6.6	9.9	8.2
Marin	57.1	35.4	7.5	63.0	28.2	8.8	9.0	8.1
Napa	49.5	43.6	6.9	64.7	30.1	5.2	8.5	6.0
San Francisco	50.6	44.1	5.3	60.2	29.5	10.3	8.4	8.7
Santa Clara	52.2	43.0	4.8	63.0	30.2	6.8	9.9	9.5
Solano	59.5	34.7	5.8	62.1	33.0	4.9	9.5	8.6
Sonoma	54.2	41.8	4.0	65.7	30.1	4.2	8.7	7.4
California	58.0	41.1	0.9	66.4	32.0	1.6	9.0	7.9

Source: NETS 2009, Calculations by Haveman Economic Consulting

Within San Mateo County, there are striking differences across industries. The "Job Churn" column in Table 4 indicates that the three most dynamic industries are information; professional, scientific, and technical services (PSTS); and administrative support and waste management services. Each has a job creation rate in excess of 13%.[3] The dynamic nature of these industries bodes extremely well for San Mateo County. Information and PSTS are high-paying industries that are often on the forefront of economic activity.

Manufacturing is also a dynamic sector with high rates of both job creation and job destruction. In particular, it is worth noting that there continues to be significant job creation in manufacturing. Although overall employment has been in secular decline since 2000, each year comes with new jobs amounting to just over 10% of the overall employment in manufacturing in the county. With an employment level of more than 26,000 positions in 2010, this indicates that some 2,500 or more *new* jobs were created in each year. More jobs were destroyed, but the upshot is that there continue to be ample employment opportunities in the sector. One-third of these opportunities are generated by new establishments (births), and one-half are created by existing establishments expanding (growth). The rest (14%) are created by existing establishments moving into the county from elsewhere.

Fifty-four percent of manufacturing job destruction in San Mateo County comes from the death of existing establishments. That this number is so high is hardly surprising, but it represents a smaller proportion of destruction in the industry than in the county as a whole (59.7%). Deaths play a much larger role in retail trade, transportation and warehousing, and accommodation and food services. The lesser importance of deaths in manufacturing in

[1] The dividing line between the two regions is Highway 92.

[2] The county numbers in this table are not averages of the regional numbers. In particular, moves between regions within the county are included in the sub-county numbers, but these same moves are not included in the countywide numbers.

[3] Although establishments in the "Other" category have high rates of job creation and destruction, there is very little employment in this category and it is of relatively little consequence.

San Mateo County is due in part to the large number of out-migrations that take place. In an average year, moves out of the county account for nearly 20% of all job destruction. This indicates that manufacturing in the county is not in decline, per se, much of it is merely headed elsewhere. This migration will be discussed in some detail below.

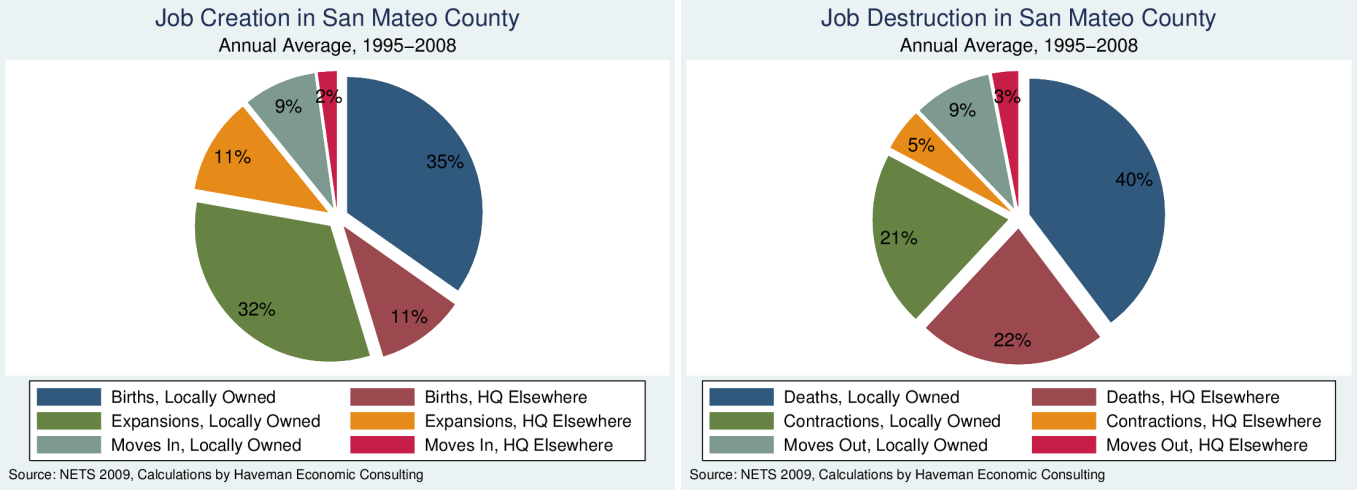
Table 4: Sources of Job Creation and Job Destruction by Industry
(Average Annual Figures: 1995-2008, % of Total)

	Job Creation			Job Destruction			Job Churn	
Industry	Births	Growth	Move In	Deaths	Contraction	Move Out	Creation	Destruction
Ag., Forestry, Fishing and Hunting	49.2	45.8	5.0	50.3	48.7	1.0	6.7	7.5
Mining	72.7	19.2	8.1	41.9	40.1	18.0	9.2	6.8
Utilities	39.8	60.2	0.0	51.5	48.5	0.0	2.3	4.6
Construction	46.2	44.5	9.4	49.1	37.2	13.7	9.9	9.8
Manufacturing	36.1	49.9	14.0	53.9	26.2	19.9	10.2	11.2
Wholesale Trade	48.3	40.1	11.6	57.9	24.3	17.8	9.6	11.6
Retail Trade	64.8	28.7	6.5	67.1	23.8	9.1	8.3	7.3
Transportation and Warehousing	46.3	42.5	11.2	64.7	23.3	12.0	9.1	8.6
Information	41.6	46.4	12.0	61.4	22.1	16.5	13.0	9.1
Finance and Insurance	50.4	43.6	5.9	51.1	38.4	10.5	9.9	8.7
Real Estate and Rental and Leasing	56.0	35.6	8.5	63.7	26.1	10.1	9.7	9.4
Prof., Sci., and Tech. Services	43.3	41.7	15.0	56.2	25.5	18.3	15.0	11.6
Admin. Support and Waste Mgmt. Srvcs.	64.4	28.8	6.8	65.4	24.6	10.0	13.9	9.9
Educational Services	35.6	61.5	2.9	55.8	39.5	4.7	5.5	5.1
Health Care and Social Assistance	55.7	40.6	3.7	69.3	25.5	5.3	7.1	7.2
Arts, Entertainment, and Recreation	55.1	39.4	5.6	71.9	18.3	9.8	10.3	6.6
Accommodation and Food Services	73.5	22.4	4.1	73.7	21.9	4.5	7.1	6.9
Other Services (except Public Admin.)	59.4	37.6	3.0	62.4	30.9	6.7	9.3	8.0
Public Administration	53.3	45.8	0.9	55.7	44.2	0.1	7.5	8.0
Other	93.9	0.5	5.5	86.8	0.0	13.2	21.5	43.9
All Industries	50.8	40.2	9.1	59.7	27.8	12.5	10.1	9.0

Source: NETS 2009, Calculations by Haveman Economic Consulting

Figure 3 provides a further breakdown of job creation and destruction according to location of ownership. Those establishments headquartered elsewhere are reasonably comparable to those headquartered locally, or that are standalones. Births, expansions, movements, and contractions all seem to happen at roughly the same rate regardless of the headquarter location. Deaths, however, seem to happen with greater frequency among those headquartered elsewhere relative to those headquartered locally. Although accounting for roughly 25% of other sources of job churn, establishments headquartered elsewhere generally account for 35% of all establishment deaths. This suggests a bias toward business establishments that are started locally over those that move in. As discussed below, locally born establishments may well be more likely to keep employment local than those born elsewhere.

Figure 3: Job Creation and Job Destruction by Ownership Location

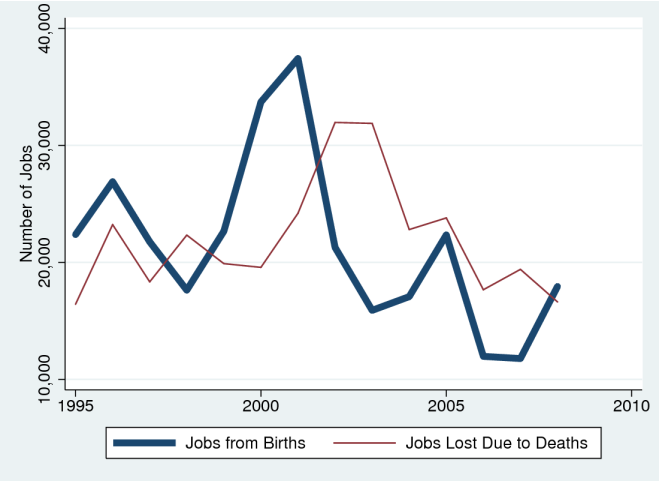


Births and Deaths of Business Establishments

Overview

In general, employment changes resulting from the births and deaths of business establishments in San Mateo County are approximately the same for both births and deaths. For much of the recent past, both births and deaths have resulted in job gains and losses ranging from 18,000 and 28,000 positions (Figure 4). However, the dot-com boom and bust are clearly evident in the figure to the right. In 2000, the number of jobs created by new establishments began to increase dramatically, from 19,000 in 1999 to 38,000 in 2002. This dramatic run-up in job gains due to births was followed, with about a year's lag, by a significant increase in employment losses due to deaths. Over the last five years of the data, both series have been trending predominantly downward.

Figure 4: Births and Deaths as a Source of Job Churn in San Mateo County, 1995-2008



The contribution of births and deaths to overall employment changes can vary significantly across industries. Industries with high rates of births and deaths are reasonably predictable. In the retail trade industry, births and deaths account for more than 65% of job creation and job destruction, respectively. Likewise, the rates for the accommodation and food services industry are usually over 70%. Restaurants and retail establishments have very high rates of turnover.

At the other end, job creation in manufacturing is much less likely to be from births, while job destruction is also relatively less likely to be from deaths. The lack of births isn't likely to be surprising given that overall employment is declining and new manufacturing establishments are likely to employ leading-edge technologies, requiring ever smaller numbers of workers to operate.

Births

In an average year, new establishments in San Mateo County are born at a rate of 10.1 per 100 existing establishments (Table 5). The rate is somewhat higher in the South County than in the North County, though the difference is quite small. After five years, a little more than one-half of new establishments are still operating within the county. These statistics pertain to new standalone companies, and do not reflect the entrance of a new Starbucks or Whole Foods, which are establishments, but not standalone.

Table 5: New Business Formation and Five-Year Survival Rates, Bay Area and California
(Average Annual Statistics: 1995-2008)

County	Number of		New Business	5-Year
	Establishments	Births	Formation Rate (%)	Survival (%)
San Mateo County	44,391	4,467	10.06	54.63
North San Mateo County	24,953	2,497	10.01	53.30
South San Mateo County	19,438	1,970	10.13	54.68
Bay Area	411,841	42,886	10.41	54.50
Alameda	79,488	8,420	10.59	53.95
Contra Costa	50,921	5,534	10.87	54.03
Marin	24,934	2,458	9.86	54.84
Napa	8,301	768	9.25	57.79
San Francisco	61,404	5,901	9.61	55.86
Santa Clara	96,063	10,594	11.03	53.79
Solano	16,435	1,899	11.56	53.44
Sonoma	29,904	2,846	9.52	56.26
California	32,110,914	3,576,074	11.14	53.21
Los Angeles County	533,424	63,276	11.86	52.55
San Diego County	157,995	17,895	11.33	54.57
Orange County	193,020	23,280	12.06	50.89
Riverside County	71,112	8,959	12.60	53.31
San Bernardino County	71,720	8,910	12.42	50.61
Sacramento County	61,425	7,258	11.82	49.81

Source: NETS 2009, Calculations by Haveman Economic Consulting
New business formation rate is births as a proportion of all establishments.

A striking feature of Table 5 is the fact that new business formation rates do not vary significantly across the state. In general, they vary from a high in the Inland Empire (San Bernardino and Riverside counties) of 12.6 new establishments per 100 existing, to a low of 9.25 in Napa County. It is surprising that innovation centers such as the Bay Area, and San Mateo County and Santa Clara County more specifically, are all below the state average. This is because most new business formation is different from what is traditionally thought of as a startup. The vast majority of new business formation is driven by population growth; hence the high rates in the Inland Empire. As population grows, more local restaurants, dry cleaners, and coffee shops are needed to service the larger population. The Bay Area, and most of its individual counties, is not among the faster-growing regions of the state.

It is also interesting to note that there is a very strong correlation between the new business formation rate and rates of survival to age five. Higher startup rates are generally associated with lower survival rates. This is true largely because the more business establishments start up, relative to the existing stock, the lower the quality of the least able businesses. This leads to increased likelihood of failure on average.

Among the leading sectors for job creation are information, and professional, scientific, and technical services (PSTS). Table 6 provides further evidence on this point. These two sectors have among the highest rates of new business formation of any industry. Administrative support and waste management services, and arts, entertainment, and recreation also have high rates of new business formation. Although PSTS has a rate of survival over five years roughly equal to that of the county as a whole, establishments in the information sector are somewhat less likely to survive to five years of age.

Table 6: New Business Formation by Industry in San Mateo County
(Average Annual Statistics, 1995-2008)

NAICS	Industry	Number of Establishments	Number of Births	New Business Formation Rate (%)	5-Year Survival (%)
99	Other	52	13	24.32	54.44
56	Admin. Support and Waste Mgmt. Srvcs.	4,600	910	19.77	58.59
51	Information	1,287	163	12.67	44.93
71	Arts, Entertainment, and Recreation	843	92	10.96	53.93
54	Prof., Sci., and Tech. Services	6,741	694	10.30	53.77
52	Finance and Insurance	2,449	248	10.14	54.19
	San Mateo County	44,391	4,467	10.06	54.63
48-49	Transportation and Warehousing	1,267	124	9.82	54.11
11	Ag., Forestry, Fishing and Hunting	222	21	9.33	47.89
23	Construction	3,572	323	9.04	54.15
62	Health Care and Social Assistance	3,221	282	8.76	61.78
81	Other Services (except Public Admin.)	4,631	403	8.69	56.64
44-45	Retail Trade	5,360	460	8.58	48.86
53	Real Estate and Rental and Leasing	2,327	200	8.58	59.35
42	Wholesale Trade	2,804	231	8.22	44.65
61	Educational Services	703	46	6.49	63.65
31-33	Manufacturing	2,326	144	6.18	54.08
72	Accommodation and Food Services	1,713	105	6.15	71.35
21	Mining	30	2	5.89	57.89
22	Utilities	36	2	4.21	65.00
92	Public Administration	206	6	2.82	61.11

Source: NETS 2009, Calculations by Haveman Economic Consulting
New business formation rate is births as a proportion of all establishments.

Deaths

As discussed above, establishment deaths are the leading source of job destruction. Because establishment deaths account for two-thirds of all jobs destroyed in an average year, it is important to understand the underlying characteristics of the establishments that go out of existence. In Table 7, it is clear that the vast majority – some 95.8% of all establishments that die – have fewer than 25 employees. This is reasonably consistent with patterns statewide and throughout the Bay Area.

Table 7: Distribution of Establishment Deaths by Establishment Size
(Average Annual Statistics, 1995-2008)

Region	Number of Employees 1-2	3-25	26-100	101-250	251-1,000	1,001+
Distribution of Establishment Deaths						
California	47.0	49.5	2.9	0.4	0.2	0.0
Bay Area	47.1	48.7	3.4	0.5	0.2	0.0
San Mateo County	47.0	48.6	3.6	0.5	0.2	0.0
North San Mateo County	45.7	49.8	3.8	0.5	0.2	0.0
South San Mateo County	48.9	47.0	3.4	0.5	0.2	0.0
Distribution of Job Losses						
California	9.8	37.2	20.6	9.9	12.1	10.3
Bay Area	8.5	33.1	21.1	10.8	13.4	13.1
San Mateo County	8.9	35.0	23.5	11.3	12.6	8.8
North San Mateo County	8.6	35.7	23.9	11.3	11.4	9.1
South San Mateo County	9.3	34.0	22.8	11.3	14.2	8.5

Source: NETS 2009, Calculations by Haveman Economic Consulting

Although most establishments are relatively small, job losses among the few larger establishments that go out of business are significant. Some 56.1% of all jobs lost in San Mateo County due to establishment closures come from the closure of an establishment with more than 25 employees. Though seldom, the closures of large businesses, those with more than 1,000 employees, lead to 8.8% of all job losses due to establishment deaths.

Most deaths occur by age four (Table 8). The largest proportion of deaths occur at age four, with about one-third occurring before four years of age and another 45% occurring after four years of age. Firms aged four years or less account for 58.0% of all establishment deaths, and 44.7% of all death-related job losses in California. This pattern points reasonably clearly toward the targeting of small establishments for assistance. Young, promising businesses fail for a variety of reasons. In many cases, the failure stems from a lack of knowledge on the part of the business owner, rather than to an inherent flaw in the product or product market choice. Accordingly, there is scope for improving the longevity of locally born businesses through policy.

Table 8: Distribution of Establishment Deaths by Establishment Age
(Average Annual Statistics, 1995-2008)

Region	Age of Establishment (years) 1-2	3	4	5	6-10	10+
Distribution of Establishment Deaths						
California	17.3	17.0	23.7	11.8	23.3	6.9
Bay Area	16.0	16.6	23.3	12.0	24.7	7.4
San Mateo County	15.0	15.4	25.0	12.3	24.8	7.5
North San Mateo County	15.3	15.6	24.3	12.2	25.1	7.6
South San Mateo County	14.7	15.2	25.9	12.4	24.4	7.4
Distribution of Job Losses						
California	13.7	14.2	16.8	11.7	31.3	12.4
Bay Area	12.9	13.1	16.3	11.6	33.4	12.7
San Mateo County	13.1	10.9	17.9	12.3	34.3	11.6
North San Mateo County	13.9	10.8	17.8	10.3	35.8	11.3
South San Mateo County	12.0	11.0	17.9	14.8	32.3	12.0

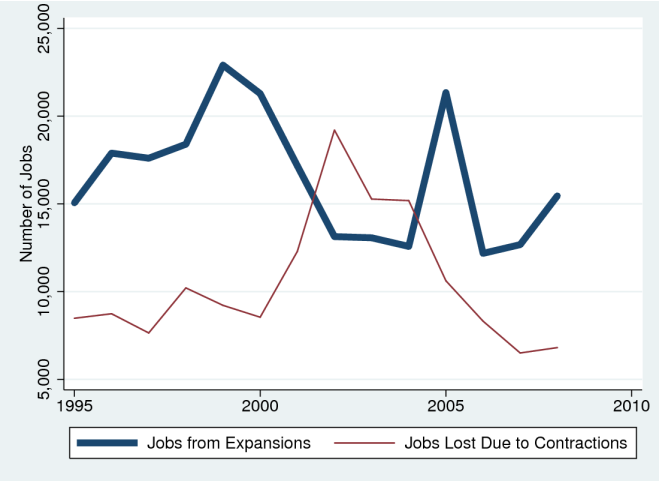
Source: NETS 2009, Calculations by Haveman Economic Consulting

Expansions and Contractions

The growth or decline of existing establishments in San Mateo County also plays a significant role in job churn. The role of existing, ongoing business establishments is second to that of births and deaths, but nonetheless leads to significant churn in the economy. In an average year between 1995 and 2008, more than 17,500 jobs were created through expansions and nearly 10,500 jobs were lost through contractions (Figure 5).

Characteristic of most healthy dynamic economies, jobs created through expansion in any given year have tended to substantially exceed those lost due to contractions. This is true for each year between 1995 and 2008, with the exception of 2002-2004, the years when the aftereffects of the dot-com bubble were still being felt. Beginning in 2005, expansions once again proceeded at a healthy pace. [4]

Figure 5: Expansions and Contractions as a Source of Job Churn in San Mateo County, 1995-2008



As with the births and deaths of business establishments, the most dynamic sectors in the county with respect to expansions and contractions are information, and professional, scientific, and technical services. In the information sector, expansions have outnumbered contractions by nearly 5 to 1. Similarly, expansions in PSTS have been double the level of contractions. In the case of information, net jobs created through establishment growth have averaged more than 2,000 positions throughout the period. PSTS has contributed fewer net gains, but still a significant 1,500 jobs per year.

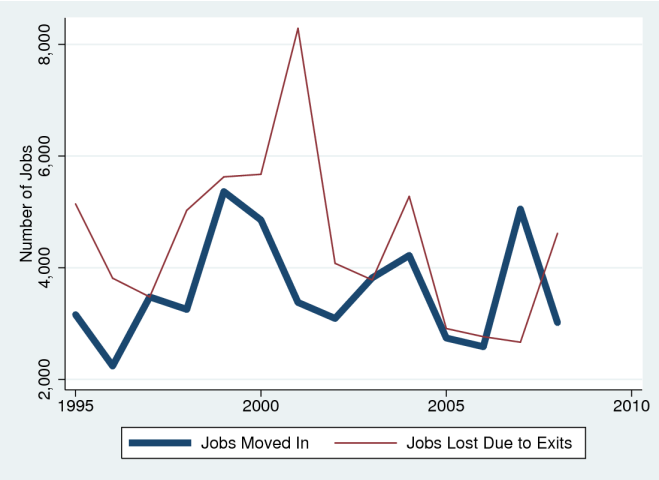
The manufacturing industry, though only 8.8% of employment, was a notable contributor to these expansions and contractions, creating nearly 2,000 jobs each year through expansions and destroying less than 1,300 each year through contractions. Deaths and exits have been so common in manufacturing in the county that overall employment in the sector has been declining, but the establishments that have continuously operated through the period have contributed positively to overall employment levels.

[4] In 2005, expansions spiked, with approximately 7,000 workers beyond what might have been expected. Expansions by Oracle also spiked in 2005, possibly as a result of the purchase of PeopleSoft in late 2004.

Establishment Moves

San Mateo County continues to experience substantial job creation and job destruction as a result of establishments moving into or out of the county. Figure 6 illustrates the annual numbers of jobs impacted by establishment moves. In an average year, the number of jobs moving out exceeded the number of jobs moving in. In fact, only in 2007 did the number of jobs moving in surpass those moving out. This anomaly was the result of Menlo Worldwide Government Services, a company involved in government defense contracting, moving into the city of San Mateo. However, this number is misleading. Although the company now employs in excess of 5,000 people, very few of them are resident in San Mateo County; most are likely in Iraq or Afghanistan.

Figure 6: Establishment Moves as a Source of Job Churn in San Mateo County, 1995-2008



In an average year between 1995 and 2008, some 3,600 jobs would move into San Mateo County, while just over 4,500 would move out. San Mateo County has therefore historically been a net exporter of jobs. San Mateo is one of four Bay Area counties that see more out-migration of jobs than in-migration (Table 9). San Francisco and Santa Clara are the other job exporters, each of which has sent significantly more jobs out of the county than has San Mateo County. The Bay Area and California as a whole are also net job exporters.[5]

Table 9: Total and Net Job Movement in the Bay Area and California: 1995-2008

County	Moved In	Moved Out	Net
Alameda	96,375	72,358	24,017
Contra Costa	40,836	30,941	9,895
Solano	10,597	7,574	3,023
Napa	5,242	3,093	2,149
Sonoma	10,234	8,611	1,623
Marin	13,915	14,812	−897
San Mateo County	50,256	63,150	−12,894
Santa Clara	69,668	103,092	−33,424
San Francisco	42,115	87,381	−45,266
Bay Area	98,506	168,278	−69,772
California	191,649	303,881	−112,232

Source: NETS 2009
Calculations by Haveman Economic Consulting

[5]The total for the Bay Area is not equal to the sum of the totals for each county within the Bay Area because the Bay Area moves do not include those between the nine counties. The numbers for the individual counties do include intra-county moves.

Movements into San Mateo County accelerated between 1996 and 1999, during the early years of the dot-com era. Outside of 2007, there has been a secular decline in movements into the county, with their number dropping from more than 5,000 jobs in 1999 to less than 2,500 in 2006. Movements out of the county followed similar trends, with moves accelerating through 2001, with a decline in most of the subsequent years. Movements out of the county were particularly large in 2001. There is no single establishment move that is responsible for this outlier. Instead, there were several larger establishments that moved out during the year, the largest of which went to other parts of the Bay Area.

Ocular Sciences Inc., a designer and manufacturer of contact lenses, was one of the largest such movements (Table 10). In 2001, the establishment and its 1,031 employees relocated to Concord, in the East Bay. Although such moves are disconcerting, in this case the loss of jobs from a move was merely preventing the loss of jobs through downsizing. The company was bought in 2004 and the local employment at the establishment fell from over 1,000 positions to less than 200. The lesson here is that moves are not always as meaningful as they might appear.

Table 10: Top 15 Establishments Moving out of San Mateo County between 1995 and 2008

Year	Company	Industry	Employment	From (City):	To (County):
1999	Firstamerica Automotive Inc.	Retail Trade	1,100	Daly City	San Francisco
2001	Ocular Sciences Inc.	Manufacturing	1,031	South San Francisco	Contra Costa
1998	Network Equipment Tech Inc.	Manufacturing	900	Redwood City	Alameda
2000	Adia Services Inc.	Admin. Support and Waste Mgmt. Srvcs.	775	Redwood City	Suffolk, NY
1996	Quantegy Inc.	Manufacturing	727	Redwood City	Santa Clara
1996	Quantegy Inc.	Manufacturing	703	Redwood City	Fayette, GA
2004	Etrade Financial Corporation	Finance and Insurance	700	Menlo Park	New York, NY
1999	Renesas Technology America Inc.	Manufacturing	609	Brisbane	Santa Clara
2008	American Liquid Packaging Systems	Prof., Sci., and Tech. Services	600	Redwood City	Santa Clara
2001	DHL Holdings (USA) Inc.	Transportation and Warehousing	600	Redwood City	San Francisco
1999	Gale Group Inc.	Information	600	Foster City	Oakland, MI
1995	Sterling Software (U.S.) Inc.	Prof., Sci., and Tech. Services	500	Foster City	Fairfax, VA
2004	Inktomi Corporation	Information	419	Foster City	Santa Clara
2002	Astar Air Cargo	Transportation and Warehousing	400	Redwood City	Lake, IL
1995	Infodisc Technology USA Inc.	Manufacturing	400	Brisbane	Alameda

Source: NETS 2009, Calculations by Haveman Economic Consulting

Table 11: Top 15 Establishments Moving into San Mateo County between 1995 and 2008

Year	Company	Industry	Employment	From (County):	To (City):
2007	Menlo Worldwide Governments	Prof., Sci., and Tech. Services	2,507	Westchester, NY	San Mateo
2000	Epiphany Inc.	Information	900	Santa Clara	San Mateo
1999	Etrade Financial Corporation	Finance and Insurance	700	Santa Clara	Menlo Park
1998	Renesas Technology America Inc.	Manufacturing	609	Dallas, TX	Brisbane
2008	Portal Software Inc.	Prof., Sci., and Tech. Services	450	Santa Clara	Redwood City
1995	OneSource Facility Services	Admin. Support and Waste Mgmt. Srvcs.	450	San Francisco	South San Francisco
2001	Cooper Companies Inc.	Transportation and Warehousing	400	San Francisco	South San Francisco
2002	Genesys Telecom Labs Inc.	Prof., Sci., and Tech. Services	400	San Francisco	Daly City
1997	Rykoff-Sexton Inc.	Wholesale Trade	400	Sacramento	Daly City
1999	Gemplus America Incorporated	Manufacturing	350	Montgomery, PA	Redwood City
2003	GreenSnow Inc.	Information	350	Santa Clara	Burlingame
2000	Getthere LP	Admin. Support and Waste Mgmt. Srvcs.	331	Santa Clara	Menlo Park
2001	Aunt Anns Agency Inc.	Health Care and Social Assistance	290	San Francisco	Daly City
1995	Brookstone Holdings Inc.	Manufacturing	285	Alameda	San Mateo
2004	Origin Systems Inc.	Prof., Sci., and Tech. Services	270	Travis, TX	Redwood City

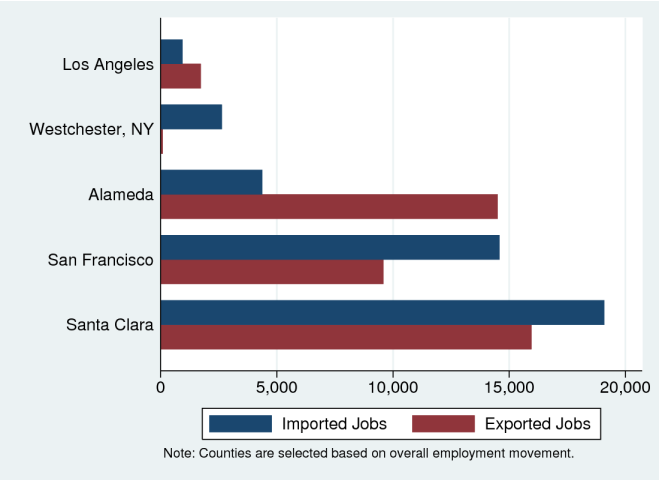
Source: NETS 2009, Calculations by Haveman Economic Consulting

There are two other striking features of the largest establishments that have moved out: first, nine of the top 15 moves were to some other Bay Area county; and second, manufacturing establishments made up six of the top 15 moves.

As is the case with establishments moving out, 10 out of the top 15 establishments moving into San Mateo County moved from some other Bay Area county. Manufacturing, however, plays a somewhat smaller role among establishments moving in than among those moving out. On the whole, establishments moving in also tend to be smaller than establishments moving out.

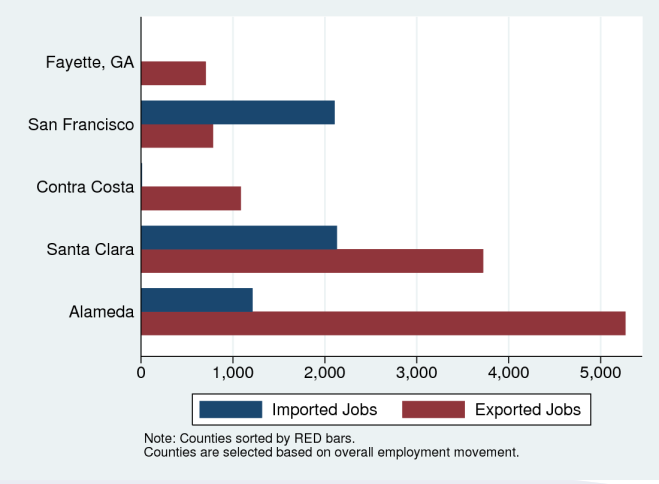
Throughout the period, the top three trading partners with San Mateo - as measured by the combined number of jobs moving from those counties and the number of jobs moving to those counties - were the three counties closest to San Mateo County: Santa Clara, San Francisco, and Alameda (Figure 7). Of these, both San Francisco and Santa Clara sent more jobs through establishment moves to San Mateo County than they received. The gap for San Francisco was just over 5,000 jobs, while the gap for Santa Clara was slightly smaller. Of the counties that were net recipients of jobs from San Mateo County, Alameda is the largest, having imported approximately 10,000 more jobs than it exported.

Figure 7: Most Common Sources and Destinations of Moves to and from San Mateo County, 1995-2008



Alameda County is also the largest net recipient of jobs from Santa Clara and San Francisco counties. This is reasonably consistent with the notion that the cost of doing business in the East Bay, and Alameda County in particular, is lower than in San Francisco or on the Peninsula. Many businesses will start in a higher-cost location because there are other offsetting factors. These factors could include access to venture capital funding or the existence of other similar companies, providing the benefits of agglomeration. Alternatively, the high-cost location could be where the founder happens to live. Once a business is well established, some will find it better for the bottom line to relocate to a cheaper geography. For businesses in San Francisco and on the Peninsula, Alameda appears to be the most common choice.

Figure 8: Most Common Sources and Destinations of Moves to and from San Mateo County among Manufacturers, 1995-2008



This is particularly true of manufacturing. As illustrated in Figure 8, Alameda stands out as the leading recipient of manufacturing jobs from San Mateo County. Again, this holds true for San Francisco and San Mateo as well. The presence of Fremont, just around the Bay, and the availability of less expensive commercial real estate is a significant draw.

By size, the preponderance of moves are made by establishments with fewer than 25 employees – accounting for nearly 90% of moves in both directions. Eighty percent of moves are made by establishments with fewer than five employees. However, the distribution is very different when discussing the proportion of jobs moved by establishments of a given size. More than one-third of all job moves are accounted for by establishments with more than 100 employees, or medium- to large-sized establishments. With regard to establishments moving in, the jobs that these medium- to large-sized establishments bring with them as a share of all jobs moving in is smaller than their overall share in countywide employment. However, a slightly larger share of jobs moving out of the county come from these medium and large establishments than they contribute to overall employment.

This asymmetry implies that because of movements, there is a continuous erosion of the number of large establishments in San Mateo County. However, San Mateo has a larger share of its employment in these large establishments, indicating that the volume of moves is not sufficient to erode the supply of large stable businesses in the county.

Overall, establishments with 11 to 50 employees contribute disproportionately to moves into the county, while establishments with 11 or more employees contribute disproportionately to moves out of the county. Although more small establishments move, by far, this is merely an artifact of their overall larger numbers. It turns out that larger, perhaps more mature, establishments are more likely to move than are smaller establishments.

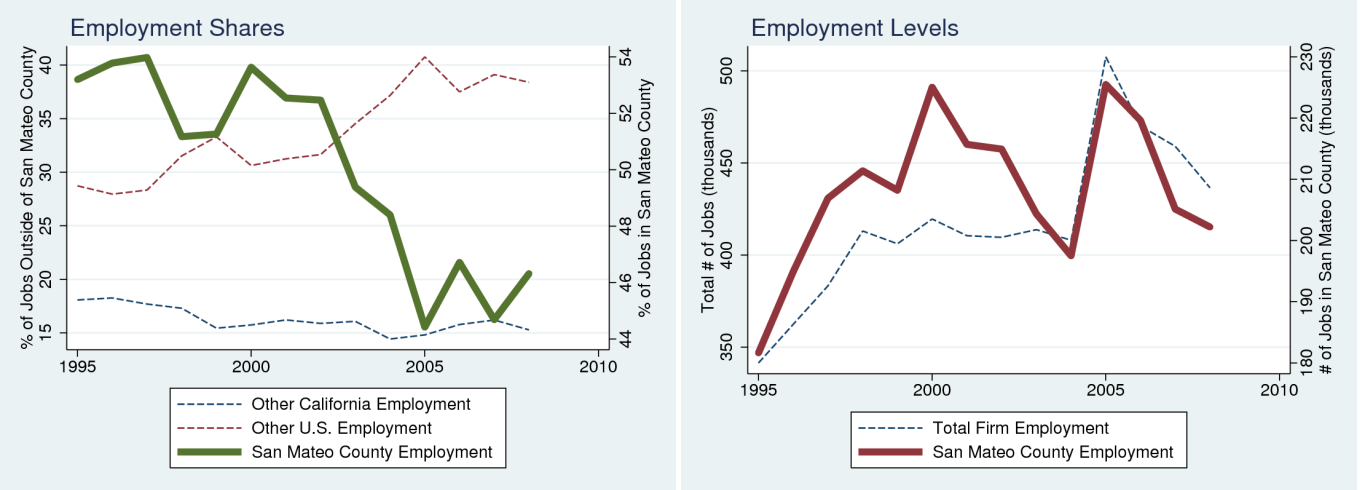
Think Globally, Employ Locally

One particularly important aspect of establishment expansions and contractions is the actions of establishments headquartered in the county. In business climate debates, establishment moves are often highlighted as evidence that the business climate is challenging. The movement of establishments out of a particular region happens for a wide variety of reasons and to every region. The fact that establishments move out is not in itself evidence of a poor business climate, particularly in light of movements into the region. Most regions, including San Mateo County, experience inflows of establishments as well as outflows.

After discussing the movement of establishments out of the county, the business climate debates often turn to the behavior of businesses headquartered locally. There are many reports of businesses headquartered locally that expand employment elsewhere. This is often the case for manufacturing enterprises that find cheaper labor and land for large production facilities elsewhere. This is not surprising, as the Bay Area as a whole provides little in the way of inexpensive real estate on which to build specialized production facilities. What is often not reported in the news is the expansion of existing companies locally.

Figure 9 provides evidence of the employment patterns of businesses headquartered in San Mateo County. The only businesses considered in this exercise are those that are located in San Mateo County and that at some point operated at least a second establishment. A second establishment is defined as an operating unit at a physically different address. These are the businesses with the greatest potential to expand employment outside of the county rather than inside the county as a response to a poor local business climate. These businesses have experience with forming a second establishment, making it easier to form additional establishments elsewhere; they may also have the capacity to expand employment out of the region by expanding employment at a subsidiary rather than at the headquarters.

Figure 9: Employment Patterns of Multi-EstablishmentFirms Headquartered in San Mateo County



The left-hand graph in Figure 9 indicates the employment patterns of these multi-establishment firms by providing the proportion of employment in San Mateo County, in California establishments outside of San Mateo County, and in establishments outside of California. The graph illustrates a secular decline in relative employment in San

Mateo County from a peak of just under 54% in 1998 to just over 46% in 2008. At the same time, local employment in these businesses has increased significantly, from 180,000 in 1995 to just over 200,000 in 2008, having peaked at just over 220,000 in 2005 (as seen in the right-hand graph of Figure 9).

Outside of the dot-com years, employment in these businesses has generally changed in tandem with employment outside of the county. In 2000, local employment expanded rapidly. This was due to the birth of a variety of companies that expanded quickly, both locally and outside of the county and then pulled back rapidly, or died, in the wake of the bursting of the dot-com bubble.

This exercise provides a particular slant on the issue. Notably, it includes the activities of four major firms that are headquartered in San Mateo County: Oracle Corp., Con-Way Inc., Tyco International Inc., and Robert Half International. Between them, they account for two-thirds of the employment outside of San Mateo County in the above figure. They account for only one-quarter of the employment in the county, so their actions have an enormous influence on the proportion of employment in San Mateo County. Their actions are also unlikely to have anything to do with the local business climate.

Another way to look at the propensity of local businesses to expand outside of the county is to look at businesses that first start operations in the county and examine their employment distribution after 10 years. Table 12 provides the results of such an analysis for San Mateo County, the other counties in the Bay Area, and a sampling of counties from around the state.

Table 12: Geographical Distribution of Employment for Local Businesses in Year 10

	Percent of Employment in:		
Region	Region	Rest of California	Outside California
San Mateo County	82.1	9.4	8.4
Bay Area	88.6	3.3	8.1
Alameda	81.4	10.3	8.2
Contra Costa	91.8	5.1	3.1
Marin	84.3	6.2	9.6
Napa	96.8	1.2	2.0
San Francisco	77.4	8.6	14.0
Santa Clara	81.8	8.6	9.6
Solano	95.6	4.3	0.2
Sonoma	96.4	2.8	0.8
California	91.2	0.0	8.8
Los Angeles County	83.0	3.2	13.8
San Diego County	94.1	2.7	3.2
Orange County	83.2	7.0	9.8
Riverside County	91.1	2.7	6.2
San Bernardino County	95.9	3.2	0.9
Sacramento County	96.1	2.8	1.1

Source: NETS, Calculations by Haveman Economic Consulting

From this table, it is apparent that firms born in San Mateo County have a greater-than-average propensity to expand beyond the county's borders than businesses born elsewhere in the Bay Area or those born in many other locations throughout the state. Of the counties present in the table, San Mateo ranks fourth in likelihood of ex-

panding outside of the area. The three counties that have a greater propensity to expand beyond county borders are those closest to San Mateo County: Alameda (81.4%), San Francisco (77.4%), and Santa Clara (81.8%).

These differences could be the result of differences in industry composition. However, San Mateo County, in particular, has patterns of local hiring that mirror counties across the state in all but a handful of sectors. These sectors account for 30% of San Mateo County employment, with the most notable inclusions being PSTS and manufacturing (Table 13). These and several other sectors have 10-year employment retention rates significantly lower than most other counties across the state.[6] Only one sector in San Mateo County stands out as less likely to expand out of the county: information.

Manufacturing and PSTS are the primary drivers of the lower rate of retention in San Mateo County, offset to a minor extent by a greater tendency to keep employment local in information. In manufacturing, this lower rate is primarily driven by Tyco International, which has greatly expanded its employment outside of the county since its birth in 1999. In PSTS, there is no single company that is the primary driver. Rather there are a number of smaller companies, such as Exelixis and Knowledge Networks, that have expanded significantly outside of California.

Table 13: Geographical Distribution of Employment for Local Businesses in Year 10 by Industry

	Percent of Employment in:		
Industry	San Mateo County	Rest of California	Outside California
Health Care and Social Assistance	98.3	1.7	0.0
Other Services (except Public Admin.)	98.2	1.8	0.0
Educational Services	97.0	2.6	0.3
Accommodation and Food Services	96.9	3.1	0.0
Retail Trade	96.4	3.4	0.3
Construction	95.6	2.7	1.7
Arts, Entertainment, and Recreation	95.4	4.5	0.1
Transportation and Warehousing	94.0	2.7	3.4
Admin. Support and Waste Mgmt. Srvcs.	89.1	7.0	4.0
Real Estate and Rental and Leasing	88.2	7.4	4.4
Wholesale Trade	85.1	12.4	2.5
San Mateo County	82.1	9.4	8.4
Information	76.0	9.9	14.1
Manufacturing	73.2	10.9	16.0
Prof., Sci., and Tech. Services	70.8	18.8	10.4
Finance and Insurance	51.5	15.1	33.4

Source: NETS, Calculations by Haveman Economic Consulting

The results of this section point to possible business climate issues arising from the geographic pattern of employment among businesses that started in the county. However, the strongest pitch for problems in the business climate is the evidence from manufacturing, and as this evidence is driven by the actions of a single firm, it is not entirely convincing. Further evidence comes from service-oriented sectors. For these sectors, it is more likely to be the challenges of market access rather than high costs at home that are driving investments in employment outside of San Mateo County. Although news stories abound regarding the expansion of local enterprises outside of the county and state, there is little evidence that this is a dominant trend and reflective of a bad business climate in San Mateo County.

[6]The other sectors are administrative support and waste management services, real estate and rental and leasing, and wholesale trade.

Venture Capital

Venture capital plays a significant role in the California and Bay Area economies. Startups in California routinely attract one-half of all venture capital investments. The Bay Area receives about 80% of those investment dollars, or 40% of all venture capital funds invested in the United States. In the Bay Area, Santa Clara County receives more venture capital funding in many categories than any other county in the nation. San Mateo County is also a major recipient of venture capital funding, ranking second in four industries nationally, and in the top 10 in 15 of the 17 industries tracked (Table 14).

Table 14: San Mateo County VC Investment Rankings by Industry in 2010

Industry	Amount $ millions)	Share of U.S.	Rank[a]
Biotechnology	619.8	13.7	2
Computers and Peripherals	61.1	11.2	2
Other	10.2	22.2	2
Telecommunications	87.1	9.1	2
Financial Services	69.4	10.2	3
IT Services	235.0	11.1	3
Media and Entertainment	144.6	7.4	3
Software	604.8	12.2	3
Retailing Distribution	11.4	7.0	4
Medical Devices and Equipment	143.4	5.0	5
Semiconductors	33.8	2.7	5
Business Products and Services	21.0	5.1	6
Electronics Instrumentation	30.1	4.3	6
Consumer Products and Services	23.1	4.2	7
Healthcare Services	14.1	4.4	10
Industrial Energy	63.8	1.5	12
Networking and Equipment	7.0	1.1	24

Source: PWC Money Tree, Calculations by Haveman Economic Consulting
[a] Ranking is among counties in the United States.

In 2010, many significant investments were made in San Mateo County startups – in fact, San Mateo County ranked second in total VC investments. With total investments in 2010 of $1.8 billion, there were five investments in excess of $50 million and 10 investments in excess of $30 million. The majority of the larger investments were in biotechnology, with 7 of the top 10 investments in 2010 coming in this sector (Table 15). The top investment was received by Trilliant Inc., of Redwood City. Trilliant supplies utility companies worldwide with real-time wireless Smart Grid communication and management networks. Biotech is the dominant sector to receive venture capital funding in 2010, with software a close second. Between them, they account for two-thirds of the venture capital funding that flowed into the county in 2010.

It is highly likely that the receipt of VC funding in a region will have a positive impact on local employment. This impact comes directly through growth of the recipient firm and indirectly through agglomeration and other spillover effects. Through an analysis of historical patterns of VC funding in San Mateo County, it is possible to discern the long-term relationship between employment and VC investments.

Such an analysis, however, reveals a relatively small relationship between VC funding and employment growth. In particular, a 4-digit NAICS industry that receives on average $10 million per year in VC funding will grow 0.3% faster than one that receives no VC funding. But it should be noted that this simple relationship does not imply

Table 15: Top 10 Venture Capital Investments in 2010

Company	Industry	Amount ($ millions)
Trilliant Inc.	Software	106.0
Solazyme Inc.	Biotechnology	60.0
Pacific Biosciences of California Inc.	Biotechnology	59.0
NGM Biopharmaceuticals Inc.	Biotechnology	51.0
Pacific Biosciences Inc.	Biotechnology	50.0
Incline Therapeutics Inc.	Biotechnology	43.0
BookRenter.com Inc.	Media and Entertainment	40.0
Pearl Therapeutics Inc.	Biotechnology	37.5
Achaogen Inc.	Biotechnology	35.4
Pulmonx Corporation	Medical Devices and Equipment	32.0

Source: PWC Money Tree, Calculations by Haveman Economic Consulting

causality. It is entirely possible that VC funds are primarily directed toward the fastest-growing industries. If this is the case, then an increase in VC funding, though not necessarily a driver of the increase in employment, can be thought of as an indicator of a healthy and fast-growing industry in the region. From Table 14, it is clear that venture capital funding contributes significantly to the San Mateo County economy on a broad basis.

Conclusion

This report provides an overview of the San Mateo County economy and a detailed analysis of the underlying employment dynamics. The pattern of employment stands out in several regards. First, it has strength in some very highly desirable sectors – in particular, information and professional, scientific, and technical services. Both of these two sectors pay high wages and are growing in importance in the U.S. economy. Transportation and warehousing is also an important sector for the county's economy, though primarily because of the presence of San Francisco International Airport. Growing in relative importance is the manufacturing sector. Despite experiencing overall employment declines, employment in the manufacturing sector in San Mateo County is falling more slowly than in most of the rest of the country. Certain subsectors are in fact growing. These strengths indicate San Mateo County's heavy reliance on well-educated and skilled workers, an orientation that will serve the county well.

The primary focus of this report is an analysis of individual business establishments and their dynamics. To that end, San Mateo County is heavily populated with relatively small businesses, though no more so than the Bay Area or the state as a whole. In addition, some 70% of employment in the county is in establishments with 100 or fewer employees. Again, this is typical of most economies around California.

Analyzing data at the establishment level permits a better understanding of the underlying employment dynamics. These dynamics include a host of activities that are lost if only aggregate industry employment are tracked. In particular, San Mateo County's economy gains jobs at a rate of 10.1% of total employment each year through new births, the expansions of existing establishments, and the movement of establishments into the county from some other location. At the same time, 9% of the county's jobs are destroyed through deaths and contractions at existing establishments, or through the movement of existing establishments to some other location.

From a workforce development perspective, this is important as it indicates that there are a many new job opportunities for those in need of work. And an industry level analysis confirms that there are opportunities even in industries that are declining. In particular, manufacturing is a highly dynamic industry in San Mateo County. Each year there are thousands of jobs that become available as the result of both the new positions that are being created and the positions that arise through attrition.

A dominant finding of the analysis is that establishment deaths have an enormous effect on overall employment growth. The death of existing business establishments has the largest influence on overall net job creation in San Mateo County. Contributing 60% of the job destruction, any abatement of establishment deaths could play a significant role in expanding employment in the county. Reducing the number of establishment deaths not only saves the current jobs at an establishment but also sustains the possibility of potential further employment.

From 1995 to 2008, some 10,000 businesses that started in San Mateo County failed by the time they were four years old. These businesses had an average of five employees each. In the broader population of businesses that were born in San Mateo County, those that reached age 10 had an average employment level of 10 positions, with many businesses having more employees than that. Suppose that 10% of these businesses could have survived with the intervention of some inexpensive policy. This would have saved 1,000 small businesses and would have resulted in the preservation of 10 jobs each, on average. This is a policy that would have saved 10,000 jobs over the course of 13 years, or roughly 750 jobs per year.

Why do small businesses fail and what can policy do about it? Businesses fail for a wide variety of reasons, including the following:

- Poor market identification or selection,
- Operational mediocrity,
- Poor capital structure, or,
- Overly rapid expansion.

Many of these reasons involve avoidable mistakes. For instance, operational mediocrity could include inadequate marketing or a poor pricing strategy. It could also mean that the owner lacks a fundamental understanding of small business accounting. The failure to assess financial needs could lead to insufficient seed money or to the absence of a sufficient cash cushion to stay afloat. Entrepreneurs are often overly optimistic about their own potential, indulging in too much borrowing, too much spending, or too much expansion.

Many of these mistakes could be easily avoided. A reasonably simple means of preventing them is to make new business owners aware of the pitfalls, offering easy strategies for avoiding the most common mistakes. Cash may be king, but knowledge is power. Consider a policy that encourages small business owners to educate themselves more fully with regard to the potential failings. Such a policy could require a certificate from a one-day seminar or a more in-depth workshop in order to obtain a business license. Another policy could grant a one- or two-year local business tax holiday to those small business owners who could demonstrate such attendance.[7]

If such a policy could prevent 1 in 10 small business failures, it could lead to the creation of 750 jobs per year at potentially no cost to the taxpayer. It has the potential to reduce the amount of new business formation but, as discussed above, there is a strong correlation between the number of startups and number of failures. A policy with higher barriers to entry could lead to less new business formation among those that are less likely to succeed.

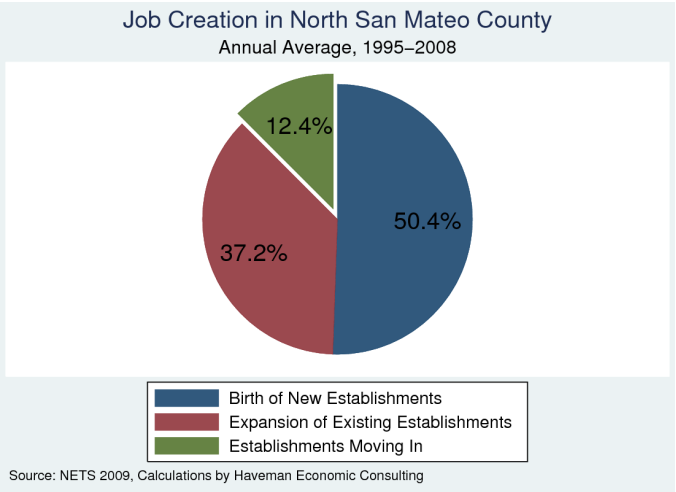
The most productive economic development policy is best determined by considering the ease with which any of the six sources of job creation are influenced by policy. The discussion above suggests that this may be through the prevention of deaths. Current economic policies often focus on influencing movements into a region. The results presented above indicate that movements are a relatively small part of the job creation picture. Overall, the results of this report suggest that a productive strategy would be to focus more attention on local businesses rather than on efforts to attract existing businesses.

San Mateo County is very dynamic. Each year brings with it the creation of a large number of new jobs and the destruction of a large number of old jobs. The dynamic nature of the economy is very productive in that it keeps the economy from growing stale. Its dynamic nature provides for both challenges and opportunities with respect to making policy. The challenge is in keeping up with the change. A failure to keep up means a focus on last year's concerns rather than today's potential. There is a large potential payoff to policies that are more agnostic as to what type of growth is best for the economy – policies that foster an environment in which those businesses that arise naturally when the market potential exists are the most likely to succeed.

[7] This policy would be relatively inexpensive as most young businesses do not experience significant revenue in their first several years.

Appendix A: North San Mateo County

Figure A.1: Job Creation and Job Destruction



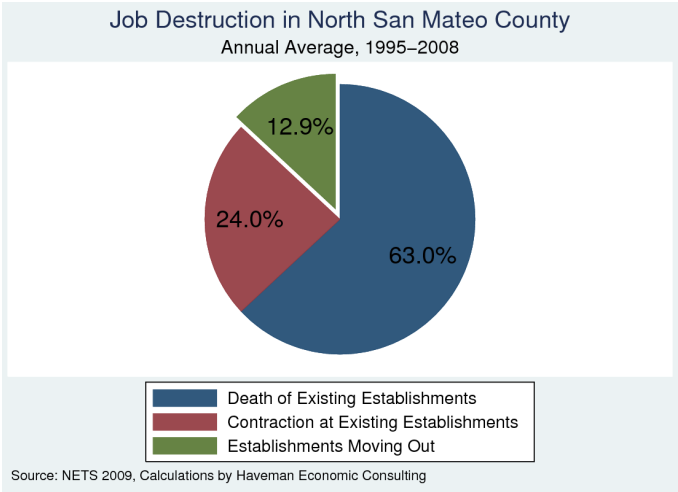


Table A.1: Sources of Job Creation and Job Destruction - by Industry
(Average Annual Figures: 1995-2008, % of Total)

Industry	Job Creation			Job Destruction			Job Churn	
	Births	Growth	Move In	Deaths	Contraction	Move Out	Creation	Destruction
Ag., Forestry, Fishing and Hunting	61.4	30.4	8.2	58.7	34.4	7.0	11.6	10.9
Mining	91.1	8.9	0.0	48.6	30.6	20.8	9.0	7.7
Utilities	29.9	70.1	0.0	52.1	47.9	0.0	2.9	3.5
Construction	49.8	33.3	16.9	55.0	25.2	19.8	10.6	10.3
Manufacturing	36.2	43.9	20.0	55.1	22.9	21.9	9.8	10.4
Wholesale Trade	47.8	36.2	16.0	58.4	22.3	19.3	9.2	11.6
Retail Trade	65.4	27.8	6.8	67.0	22.1	10.9	8.1	7.2
Transportation and Warehousing	45.0	41.5	13.5	68.6	22.7	8.7	8.8	8.5
Information	35.4	45.8	18.8	56.8	20.3	22.9	14.7	12.2
Finance and Insurance	53.5	40.8	5.6	53.7	35.5	10.8	9.1	8.8
Real Estate and Rental and Leasing	56.0	33.4	10.6	64.8	23.2	12.0	10.0	9.5
Prof., Sci., and Tech. Services	41.7	38.5	19.8	59.2	20.7	20.1	17.4	11.9
Admin. Support and Waste Mgmt. Srvcs.	65.2	22.4	12.4	67.7	23.3	9.0	13.6	9.9
Educational Services	39.5	55.8	4.6	57.6	38.8	3.5	4.8	5.2
Health Care and Social Assistance	49.9	45.6	4.5	68.5	26.7	4.9	6.8	8.1
Arts, Entertainment, and Recreation	48.7	44.1	7.3	74.0	16.4	9.6	9.7	6.0
Accommodation and Food Services	72.2	21.5	6.3	78.9	18.6	2.5	6.8	7.3
Other Services (except Public Admin.)	58.4	37.3	4.3	63.6	29.2	7.1	8.8	8.2
Public Administration	54.9	43.0	2.0	66.1	32.5	1.4	7.3	8.4
Other	99.7	0.0	0.3	87.5	0.0	12.5	23.3	82.0
All Industries	50.4	37.2	12.4	63.0	24.0	12.9	9.9	9.1

Source: NETS 2009, Calculations by Haveman Economic Consulting

Figure A.2: Job Creation and Job Destruction by Ownership Location

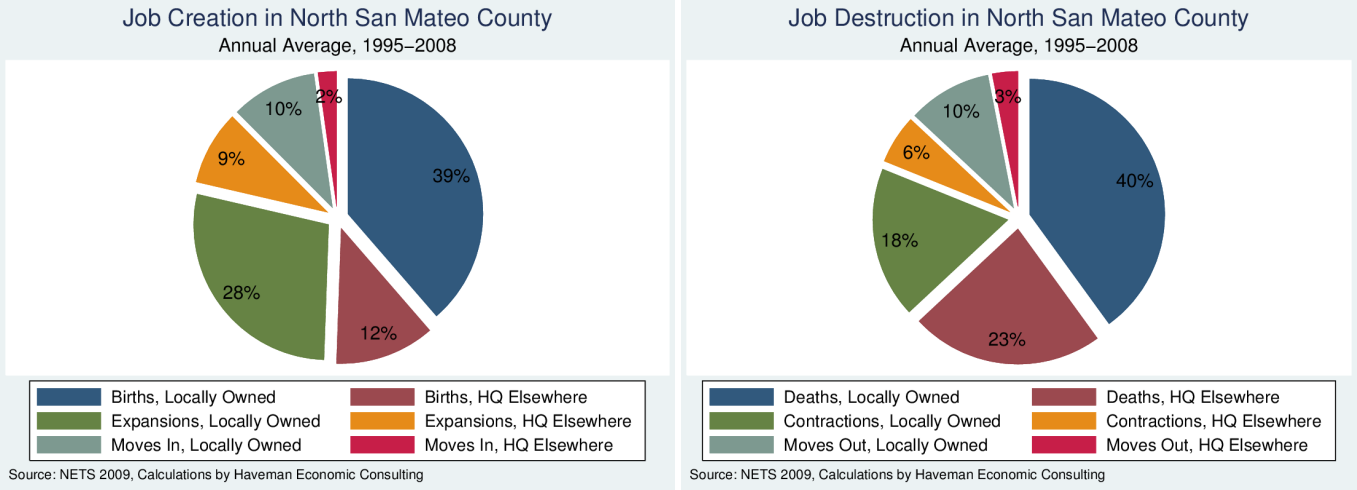


Table A.2: Startup Activity - Average Annual Statistics

NAICS	Description	# Establishments	# Births	Startup Activity	5 Year Survival
99	Other	27	7	25.49	53.33
56	Admin. Support and Waste Mgmt. Srvcs.	2,473	479	19.36	54.41
51	Information	674	85	12.65	44.86
71	Arts, Entertainment, and Recreation	458	49	10.80	53.68
54	Prof., Sci., and Tech. Services	3,276	348	10.64	51.69
11	Ag., Forestry, Fishing and Hunting	80	8	10.28	44.05
	North San Mateo County	24,953	2,497	10.01	53.30
52	Finance and Insurance	1,441	143	9.95	53.63
48-49	Transportation and Warehousing	985	97	9.81	53.38
23	Construction	1,912	182	9.53	52.46
44-45	Retail Trade	3,216	281	8.73	48.30
53	Real Estate and Rental and Leasing	1,356	117	8.59	58.68
81	Other Services (except Public Admin.)	2,693	227	8.42	57.00
62	Health Care and Social Assistance	1,894	159	8.39	62.60
42	Wholesale Trade	1,772	148	8.35	43.98
21	Mining	15	1	6.90	50.00
31-33	Manufacturing	1,147	74	6.48	51.76
61	Educational Services	367	24	6.44	60.37
72	Accommodation and Food Services	1,048	64	6.13	70.51
22	Utilities	16	1	4.00	44.44
92	Public Administration	103	3	3.30	59.09

Source: NETS 2009, Calculations by Haveman Economic Consulting
Startup Activity is births as a proportion of all establishments.

Figure A.3: Births and Deaths as a Source of Job Churn
in North San Mateo County, 1995-2008

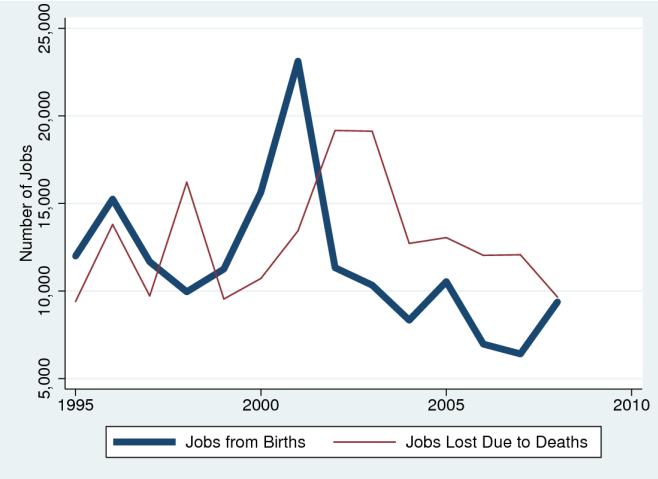


Figure A.4: Expansions and Contractions as a Source of Job Churn
in North San Mateo County, 1995-2008

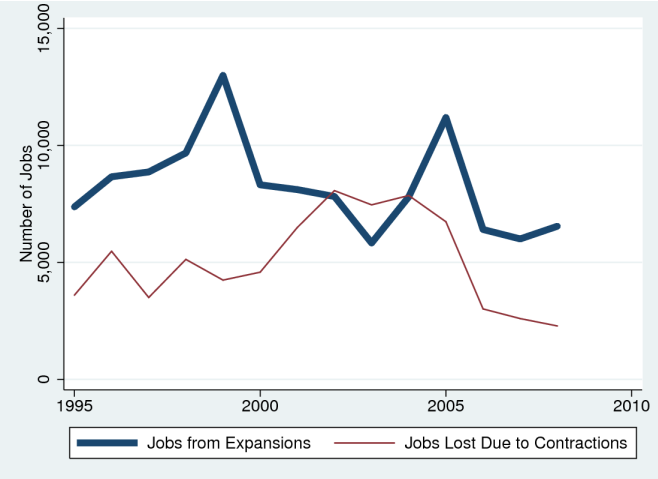


Figure A.5: Establishment Moves as a Source of Job Churn
in North San Mateo County, 1995-2008

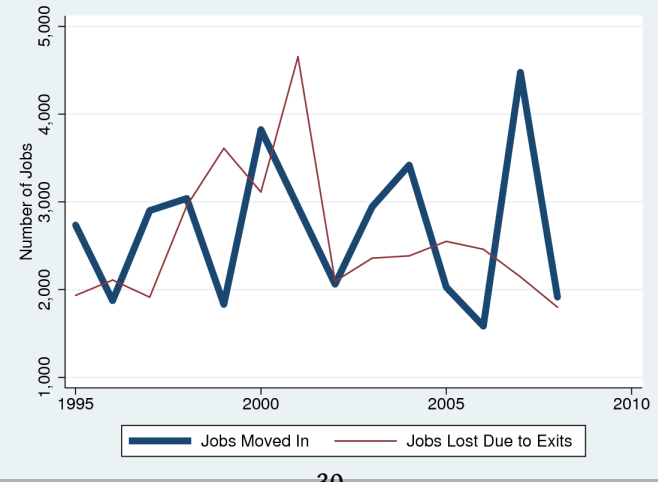


Figure A.6: Most Common Sources and Destinations of Moves to and from North San Mateo County, 1995-2008

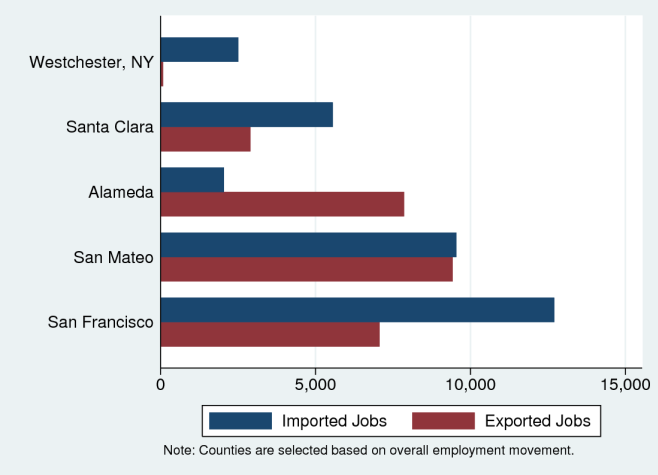


Figure A.7: Most Common Sources and Destinations of Moves to and from North San Mateo County Among Manufacturers, 1995-2008

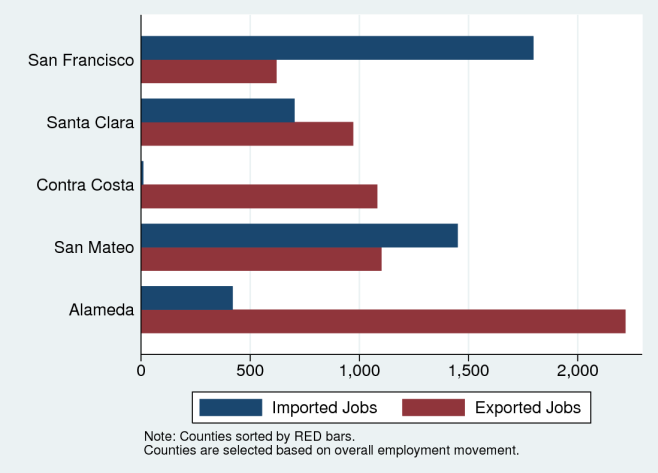


Table A.3: Top 15 Establishments Moving out of North San Mateo County between 1995 and 2008

Year	Company	Industry	Employment	From (City):	To (County):
1999	Firstamerica Automotive Inc.	Retail Trade	1,100	Daly City	San Francisco
2001	Ocular Sciences Inc.	Manufacturing	1,031	South San Francisco	Contra Costa
1999	Renesas Technology America Inc.	Manufacturing	609	Brisbane	Santa Clara
2007	Siebel Systems Inc.	Information	566	San Mateo	San Mateo
1998	Electronic Arts Inc.	Information	475	San Mateo	San Mateo
1995	InfoDisc Technology Usa Inc.	Manufacturing	400	Brisbane	Alameda
2000	Electronics For Imaging Inc.	Manufacturing	396	San Mateo	San Mateo
2005	Gymboree Corporation	Retail Trade	300	Burlingame	San Francisco
2001	Archco Financial Inc.	Prof., Sci., and Tech. Services	300	Millbrae	El Dorado
2001	Good Guys Inc.	Retail Trade	285	Brisbane	Alameda
2000	At&T Services Inc.	Information	251	South San Francisco	San Francisco
2001	Good Guys California Inc.	Retail Trade	250	Brisbane	Alameda
2006	Gymboree Manufacturing Inc.	Manufacturing	250	Burlingame	San Francisco
2005	S F O Shuttle Bus Co.	Transportation and Warehousing	250	South San Francisco	San Mateo
2002	Metropolitan Furniture Corp	Manufacturing	230	Burlingame	Alameda

Source: NETS 2009, Calculations by Haveman Economic Consulting

Table A.4: Top 15 Establishments moving into North San Mateo County between 1995 and 2008

Year	Company	Industry	Employment	From (County):	To (City):
2007	Menlo Worldwide Governments	Prof., Sci., and Tech. Services	2,507	Westchester, NY	San Mateo
2000	Epiphany Inc.	Information	900	Santa Clara	San Mateo
1998	Renesas Technology America Inc.	Manufacturing	609	Dallas, TX	Brisbane
1995	OneSource Facility Services	Admin Support and Waste Mgmt Srvcs	450	San Francisco	South San Francisco
2001	Cooper Companies Inc.	Transportation and Warehousing	400	San Francisco	South San Francisco
2002	Genesys Telecom Labs Inc.	Prof., Sci., and Tech. Services	400	San Francisco	Daly City
1997	Rykoff-Sexton Inc.	Wholesale Trade	400	Sacramento	Daly City
2000	Surgical Staff North Inc.	Admin. Support and Waste Mgmt. Srvcs.	356	San Mateo	San Mateo
2003	GreenSnow Inc.	Information	350	Santa Clara	Burlingame
2001	Aunt Ann's Agency Inc.	Health Care and Social Assistance	290	San Francisco	Daly City
1995	Brookstone Holdings Inc.	Manufacturing	285	Alameda	San Mateo
2004	Trinity Building Services	Admin Support and Waste Mgmt Srvcs	275	San Mateo	South San Francisco
2004	Liberate Technologies	Prof., Sci., and Tech. Services	267	San Mateo	San Mateo
2005	A & E West Coast Transport	Transportation and Warehousing	250	San Mateo	Burlingame
2004	Bax Global Inc.	Transportation and Warehousing	250	Fresno	South San Francisco

Source: NETS 2009, Calculations by Haveman Economic Consulting

Figure A.8: Employment Patterns of Firms Headquartered in North San Mateo County

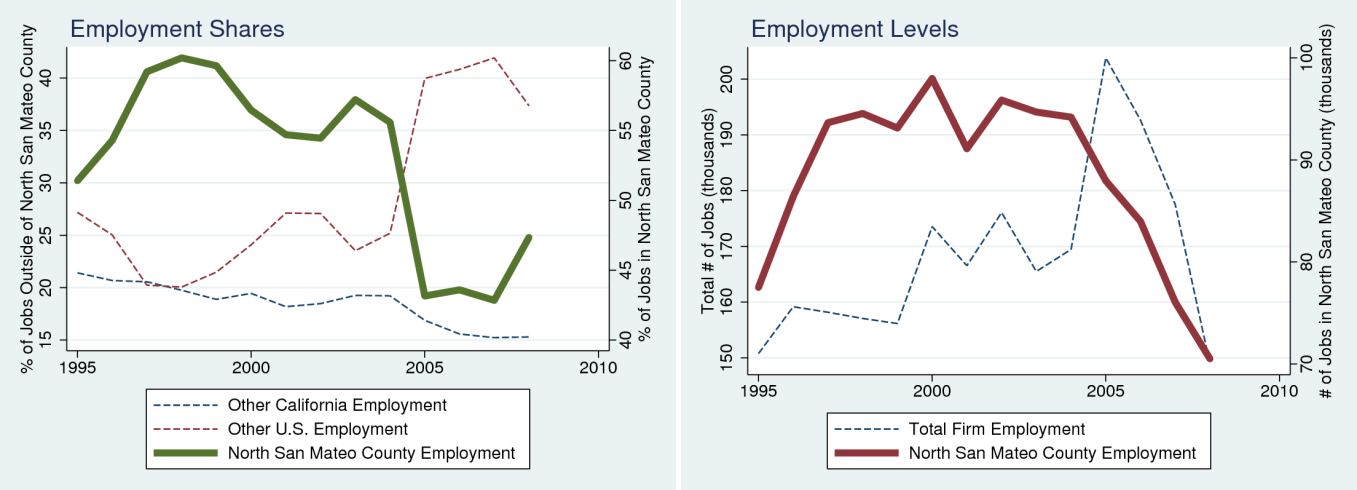


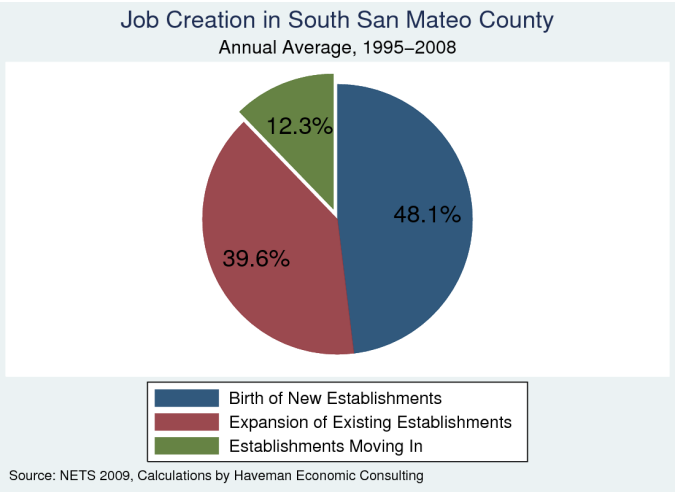
Table A.5: Geographical Distribution of Employment for Local Businesses in Year 10 By Industry

Region/ Industry	Percent of Employment in: N. San Mateo County	Rest of California	Outside California
Construction	98.0	0.3	1.7
Educational Services	97.5	1.8	0.6
Health Care and Social Assistance	97.2	2.8	0.0
Other Services (except Public Admin.)	96.0	4.0	0.0
Accommodation and Food Services	95.1	4.9	0.0
Wholesale Trade	94.2	3.9	1.9
Real Estate and Rental and Leasing	92.5	7.5	0.0
Transportation and Warehousing	91.7	3.6	4.6
Retail Trade	90.6	9.0	0.4
North San Mateo County Total	84.5	11.0	4.5
Admin. Support and Waste Mgmt. Srvcs.	83.2	10.2	6.6
Finance and Insurance	82.5	4.9	12.6
Manufacturing	77.3	11.3	11.4
Information	66.4	18.3	15.4
Prof., Sci., and Tech. Services	63.3	31.5	5.3

Source: NETS, Calculations by Haveman Economic Consulting

Appendix B: South San Mateo County

Figure B.1: Job Creation and Job Destruction



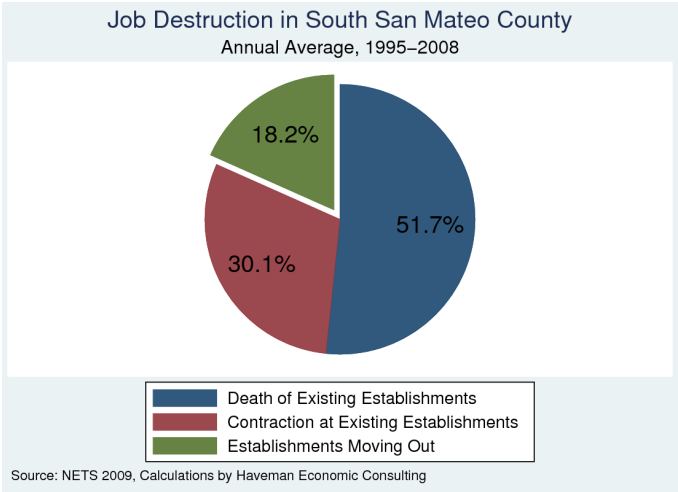


Table B.1: Sources of Job Creation and Job Destruction - by Industry
(Average Annual Figures: 1995-2008, % of Total)

Industry	Job Creation			Job Destruction			Job Churn	
	Births	Growth	Move In	Deaths	Contraction	Move Out	Creation	Destruction
Ag., Forestry, Fishing and Hunting	45.0	41.5	13.5	46.4	48.3	5.3	6.1	7.2
Mining	49.1	37.3	13.6	32.7	62.9	4.4	8.7	6.0
Utilities	42.0	58.0	0.0	40.1	59.9	0.0	1.7	5.4
Construction	40.3	51.1	8.6	42.8	40.7	16.5	9.9	9.9
Manufacturing	34.0	49.4	16.6	49.5	27.2	23.3	11.3	12.6
Wholesale Trade	46.6	40.5	12.9	54.7	25.3	19.9	10.8	12.1
Retail Trade	60.3	28.8	10.9	64.8	24.6	10.6	8.9	7.7
Transportation and Warehousing	48.4	41.2	10.3	51.9	25.8	22.3	10.1	9.8
Information	42.6	34.1	23.3	51.9	23.6	24.6	12.8	9.0
Finance and Insurance	49.6	34.4	15.9	47.2	38.2	14.6	11.4	9.3
Real Estate and Rental and Leasing	52.8	34.6	12.6	59.8	26.1	14.0	10.0	10.1
Prof., Sci., and Tech. Services	42.2	39.2	18.6	49.8	26.4	23.8	14.1	12.4
Admin. Support and Waste Mgmt. Srvcs.	60.8	31.7	7.4	60.1	22.6	17.3	15.1	11.1
Educational Services	33.0	59.4	7.7	51.9	36.8	11.3	6.8	5.2
Health Care and Social Assistance	61.9	31.7	6.4	64.7	25.1	10.2	7.9	6.3
Arts, Entertainment, and Recreation	64.1	27.6	8.3	63.8	18.9	17.3	11.6	8.2
Accommodation and Food Services	69.7	23.9	6.4	59.3	27.8	12.9	8.1	6.5
Other Services (except Public Admin.)	59.4	35.6	4.9	56.8	32.7	10.5	10.5	8.1
Public Administration	51.1	48.8	0.2	30.9	66.7	2.4	7.4	8.6
Other	89.4	1.1	9.5	98.6	0.0	1.4	14.3	13.4
All Industries	48.1	39.6	12.3	51.7	30.1	18.2	10.9	9.5

Source: NETS 2009, Calculations by Haveman Economic Consulting

Figure B.2: Job Creation and Job Destruction by Ownership Location

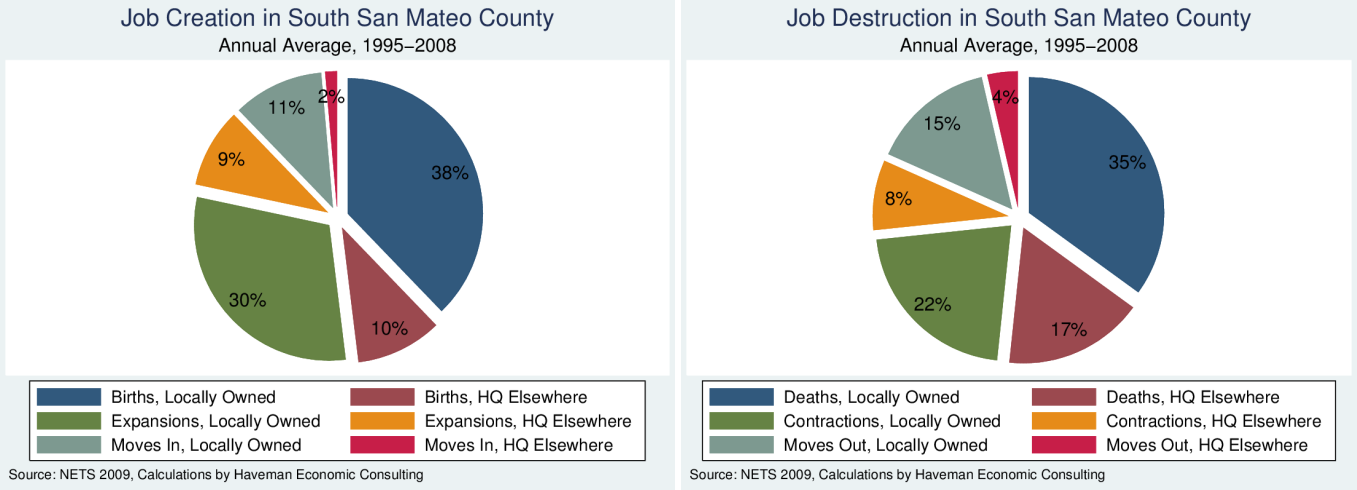


Table B.2: Startup Activity - Average Annual Statistics

NAICS	Description	# Establishments	# Births	Startup Activity	5 Year Survival
99	Other	25	6	23.08	55.56
56	Admin. Support and Waste Mgmt. Srvcs.	2,127	431	20.25	62.37
51	Information	614	78	12.68	41.89
71	Arts, Entertainment, and Recreation	386	43	11.16	52.49
52	Finance and Insurance	1,009	105	10.42	52.87
	South San Mateo County	19,438	1,970	10.13	54.68
54	Prof., Sci., and Tech. Services	3,465	346	9.97	54.00
48-49	Transportation and Warehousing	282	28	9.87	52.71
62	Health Care and Social Assistance	1,327	123	9.29	59.74
81	Other Services (except Public Admin.)	1,938	176	9.07	55.25
11	Ag., Forestry, Fishing and Hunting	142	12	8.80	50.39
53	Real Estate and Rental and Leasing	971	83	8.57	58.64
23	Construction	1,659	141	8.47	53.43
44-45	Retail Trade	2,143	179	8.36	48.37
42	Wholesale Trade	1,032	83	8.01	43.87
61	Educational Services	336	22	6.54	65.81
72	Accommodation and Food Services	665	41	6.18	71.96
31-33	Manufacturing	1,179	69	5.89	53.33
21	Mining	15	1	4.84	71.43
22	Utilities	20	1	4.39	81.82
92	Public Administration	103	2	2.34	64.29

Source: NETS 2009, Calculations by Haveman Economic Consulting
Startup Activity is births as a proportion of all establishments.

Figure B.3: Births and Deaths as a Source of Job Churn
in South San Mateo County, 1995-2008

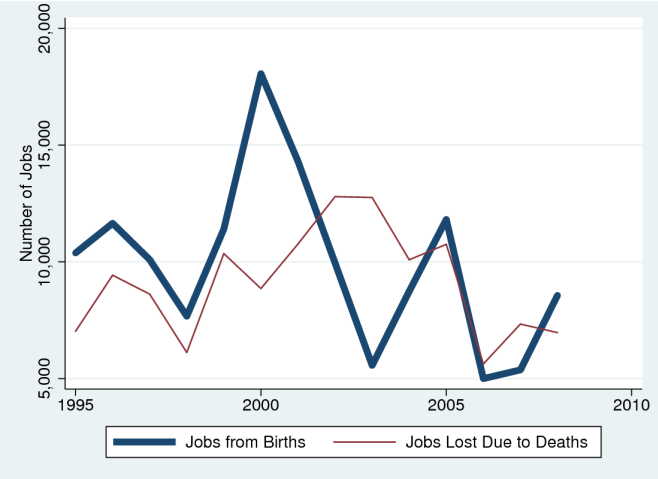


Figure B.4: Expansions and Contractions as a Source of Job Churn
in South San Mateo County, 1995-2008

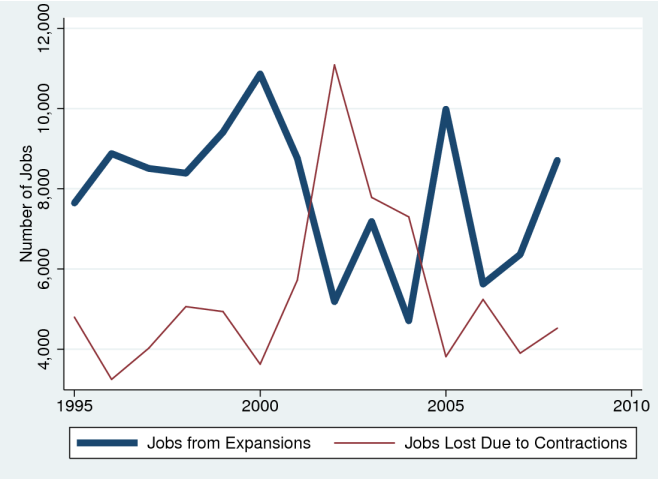


Figure B.5: Establishment Moves as a Source of Job Churn
in South San Mateo County, 1995-2008

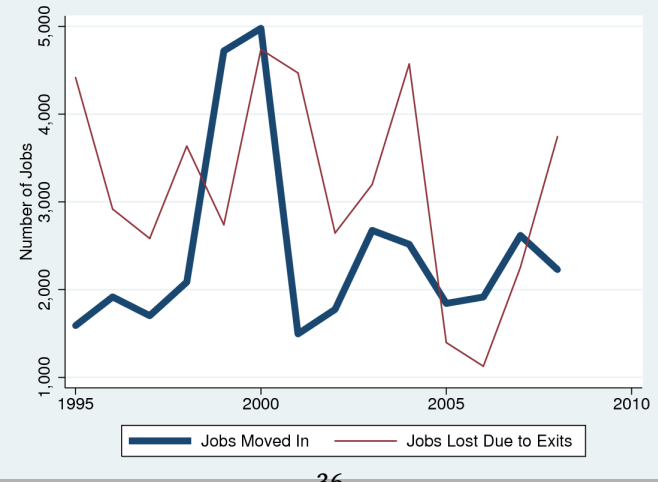


Figure B.6: Most Common Sources and Destinations of Moves to and from South San Mateo County, 1995-2008

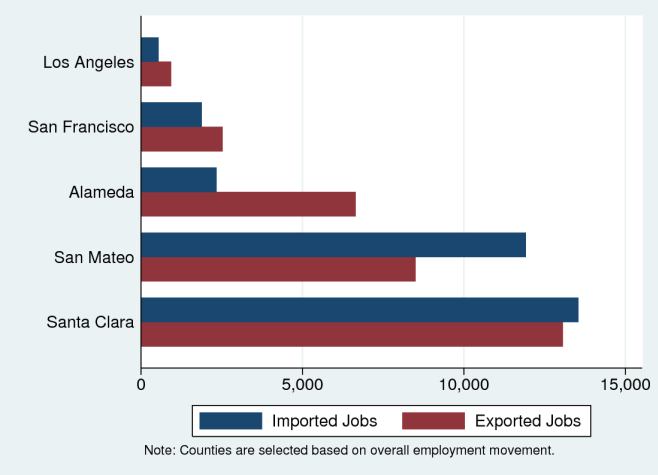


Figure B.7: Most Common Sources and Destinations of Moves to and from South San Mateo County Among Manufacturers, 1995-2008

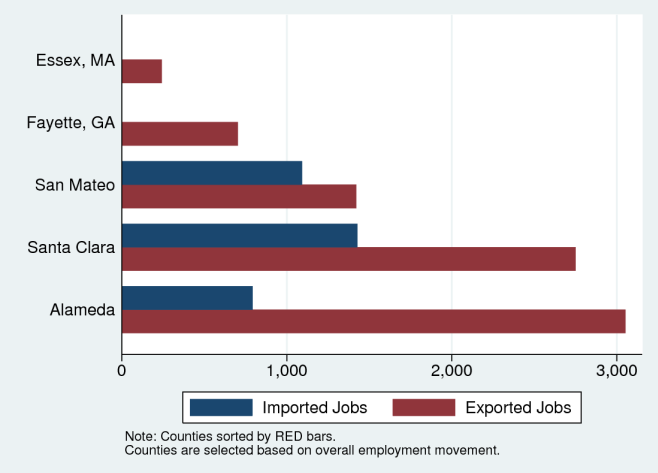


Table B.3: Top 15 Establishments Moving out of South San Mateo County between 1995 and 2008

Year	Company	Industry	Employment	From (City):	To (County):
1998	Network Equipment Tech. Inc.	Manufacturing	900	Redwood City	Alameda
2000	Adia Services Inc.	Admin.Support and Waste Mgmt Srvcs	775	Redwood City	Suffolk, NY
1996	Quantegy Inc.	Manufacturing	727	Redwood City	Santa Clara
1996	Quantegy Inc.	Manufacturing	703	Redwood City	Fayette, GA
2004	Etrade Financial Corp.	Finance and Insurance	700	Menlo Park	New York, NY
2008	American Liquid Packaging Syst	Prof., Sci., and Tech. Services	600	Redwood City	Santa Clara
1999	Gale Group Inc.	Information	600	Foster City	Oakland, MI
2001	DHL Holdings (USA) Inc.	Transportation and Warehousing	600	Redwood City	San Francisco
1995	Sterling Software (U.S.) Inc.	Prof., Sci., and Tech. Services	500	Foster City	Fairfax, VA
2004	Inktomi Corp.	Information	419	Foster City	Santa Clara
2000	Surgical Staff North Inc.	Admin.Support and Waste Mgmt Srvcs	400	Redwood City	San Mateo
2002	Astar Air Cargo	Transportation and Warehousing	400	Redwood City	Lake, IL
2008	Tele Atlas North America Inc.	Prof., Sci., and Tech. Services	400	Redwood City	Grafton, NH
2000	Intuit Inc.	Prof., Sci., and Tech. Services	378	Menlo Park	Santa Clara
1998	Network General Corp.	Prof., Sci., and Tech. Services	375	Menlo Park	Santa Clara

Source: NETS 2009, Calculations by Haveman Economic Consulting

Table B.4: Top 15 Establishments moving into South San Mateo County between 1995 and 2008

Year	Company	Industry	Employment	From (County):	To (City):
2000	Recovery Equity Investors LP	Finance and Insurance	1,603	San Mateo	Redwood City
1999	Etrade Financial Corp.	Finance and Insurance	700	Santa Clara	Menlo Park
2007	Siebel Systems Inc.	Information	566	San Mateo	Redwood City
1998	Electronic Arts Inc.	Information	475	San Mateo	Redwood City
2008	Portal Software Inc.	Prof., Sci., and Tech. Services	450	Santa Clara	Redwood City
1999	Inktomi Corp.	Information	400	San Mateo	Foster City
2000	Electronics For Imaging Inc.	Manufacturing	396	San Mateo	Foster City
1999	Gemplus America Inc.	Manufacturing	350	Montgomery, PA	Redwood City
2000	Getthere LP	Admin.Support and Waste Mgmt Srvcs	331	Santa Clara	Menlo Park
2004	Origin Systems Inc.	Prof., Sci., and Tech. Services	270	Travis, TX	Redwood City
1999	Corio Inc.	Prof., Sci., and Tech. Services	260	Santa Clara	Redwood City
2005	Neopost Leasing Inc.	Real Estate and Rental and Leasing	250	Alameda	Redwood City
2007	Model N Inc.	Prof., Sci., and Tech. Services	240	San Mateo	Redwood City
2008	Pgp Classic Corp.	Retail Trade	233	Santa Clara	Menlo Park
2002	Act Networks Inc.	Manufacturing	230	Los Angeles	Redwood City

Source: NETS 2009, Calculations by Haveman Economic Consulting

Figure B.8: Employment Patterns of Firms Headquartered in South San Mateo County

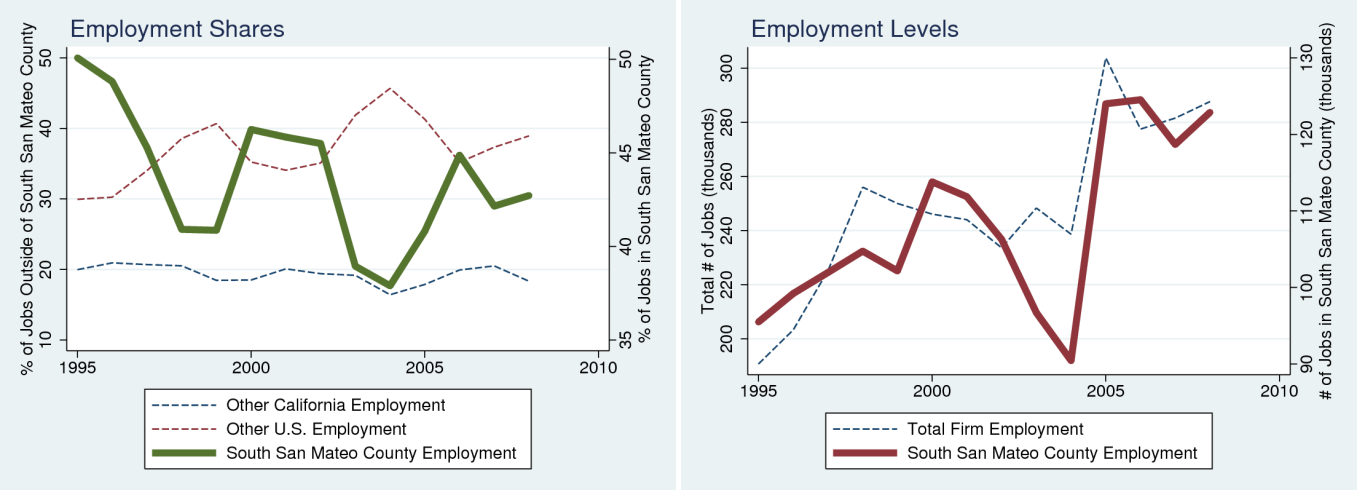


Table B.5: Geographical Distribution of Employment for Local Businesses in Year 10 By Industry

Region/ Industry	Percent of Employment in: S. San Mateo County	Rest of California	Outside California
Other Services (except Public Admin.)	99.9	0.1	0.0
Admin. Support and Waste Mgmt. Srvcs.	96.8	3.0	0.3
Accommodation and Food Services	96.5	3.5	0.0
Transportation and Warehousing	95.2	4.8	0.0
Educational Services	95.2	4.8	0.0
Retail Trade	93.3	6.7	0.0
Construction	93.0	5.1	1.9
Real Estate and Rental and Leasing	82.1	7.4	10.4
Arts, Entertainment, and Recreation	81.7	18.1	0.3
South San Mateo County Total	73.5	13.2	13.3
Wholesale Trade	71.3	25.7	3.0
Prof., Sci., and Tech. Services	71.0	14.0	15.0
Information	62.6	22.5	15.0
Manufacturing	59.5	18.5	22.0
Finance and Insurance	33.3	21.5	45.1

Source: NETS, Calculations by Haveman Economic Consulting