

Employment and Business Dynamics: San Mateo County

Commissioned by:

The Economic Vitality Research and Education Foundation (EVRE)
The San Mateo County Economic Development Association (SAMCEDA)



Developed by
Beacon Economics



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EXECUTIVE SUMMARY

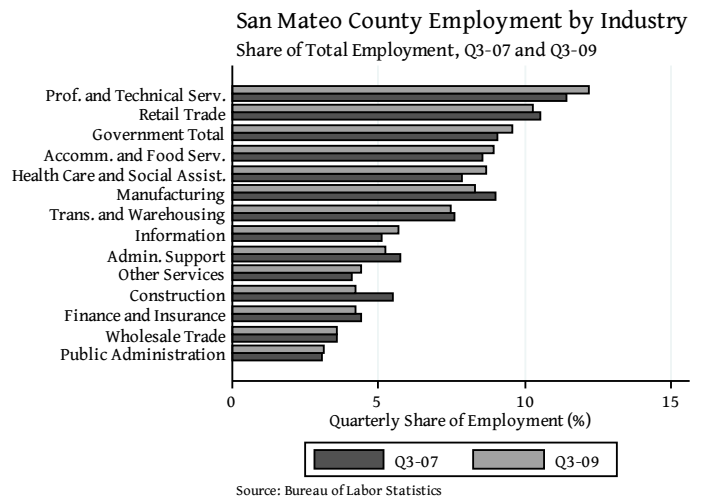
The county of San Mateo is highly dynamic in terms of its employment and business patterns. Like neighboring San Francisco and Santa Clara counties, it has experienced significant ups and downs over the last 15 years with respect to employment levels, employment concentrations, and business activity. At the end of 2007, San Mateo was the 13th-largest county in terms of employment, with nearly 360,000 people employed in the county. By the third quarter of 2009 (the end of the 2008-09 recession), the county had moved up to become the 12th-largest employment center in the state.

Employment in the county is concentrated in a diverse set of industries. The skill-intensive professional and technical services and information sectors account for a large share of employment in the county, as does the relatively lower-skilled transportation and warehousing. The latter is largely explained by the presence of San Francisco International Airport; however, as San Mateo County imports much of its low-skill labor, this ultimately has only a minor effect on local workforce characteristics.

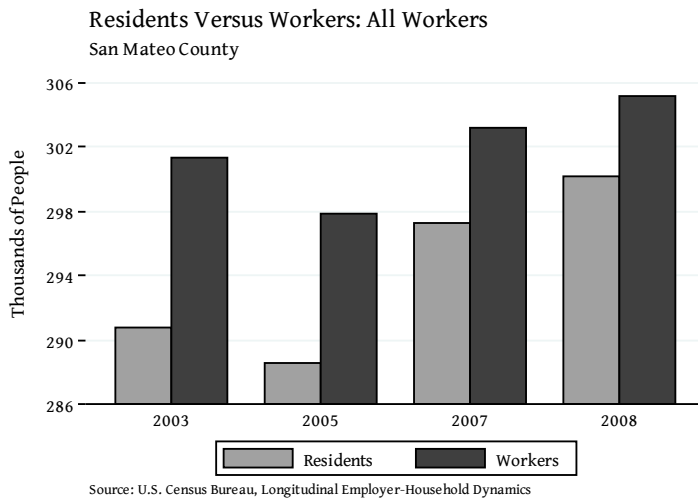
The characteristics of San Mateo County's employment base differ significantly from the characteristics of its employed residents when comparing skill-level, age, and industry. In particular, only 41% of those employed in the county also reside in the county. Of those living in the county, only 42% of those with a job also work within San Mateo County, making the area somewhat of a bedroom community. Highly-skilled laborers in San Mateo County frequently commute to nearby counties to work, while lower-skilled workers are brought into the county to fill lower-wage positions. Other important differences include:

- A gap of nearly 3,000 between the number of jobs in the county and the number of employed residents – even if all employed residents worked within the county, they would not be able to fill all the available jobs.
- A significant age discrepancy – employed residents are typically older than those employed in the county, as is the populace in general.
- Residents are more likely to be employed in nontransportation service sectors, that is to say in higher-skill, better-paid service sector jobs, than are nonresident employees.

Over time, employed residents in San Mateo County have been shifting into higher earnings brackets, and jobs in the county are becoming increasingly well-paid. This trend is a clear consequence of the increasing proportion of high-skilled service sector jobs in the county. Going forward, this long-term trend is expected to continue. As a result, the outlook for job growth in the county is solid, with a greater than 11% increase in local employment from the end of 2009 to the end of 2015. At the same time, however, these job gains do little more than erase the losses accumulated over the past two years: at the end of 2015, employment in the county will be a mere 1.5%



higher than its peak pre-recession levels. Even then, employment will remain well below the record peak attained in late 2000 – by almost 34,000 payroll positions.



The composition of employment growth, on the other hand, bodes well for the county. Solid increases in highly skilled occupations are anticipated. In particular, increases in legal, computer and mathematical, skilled health care, and life, physical, and social science occupations will significantly outpace general employment growth. With average annual wages in each of these categories in excess of \$80,000, living standards in the county will rise more quickly in San Mateo than in much of the rest of the state.

Over the last 20 years, the county has experienced significant change. In essence, San Mateo County is both a bedroom community, only 41% of residents are employed in the county, and a source of jobs to workers outside of the county - some 60% of jobs in San Mateo are filled by workers commuting from some other Bay Area county. This feature of the county has been increasing since the bursting of the dot-com bubble in 2001, suggesting an increasing mismatch between those employed in the county and the jobs available.

This observation is linked to a crucial question: How can San Mateo grow in the future to maximize the return to its current resources? The county is in an enviable position because its resources are considerable, but it is also limited. Its residents are very well educated, but at the same time older than residents in much of the rest of the state. Its real estate is valuable, suggesting that there is perhaps a shortage of housing; the extent of nonresident employees in the county is also suggestive of this need. There are myriad tradeoffs that need to be considered, including the needs of residents versus the needs of local businesses. The options for meeting the needs of both groups are clear, but the best solutions are not. These are complicated policy issues, but the county is fortunate in having many good options.

INTRODUCTION

The county of San Mateo is highly dynamic in terms of its employment and business patterns. Like neighboring San Francisco and Santa Clara counties, it has experienced significant ups and downs over the last 15 years with respect to employment levels, employment concentrations, and business activity. At the end of 2007, San Mateo was the 13th-largest county in terms of employment, with nearly 360,000 people employed in the county. By the third quarter of 2009, the county had moved up to become the 12th-largest employment center, despite suffering significant job losses during the recent recession.¹

Employment in the county is concentrated in a diverse set of industries. A county is considered to have a concentration in a particular sector if it has a significantly larger share of employment in that sector than is found across the state. The skill-intensive professional and technical services and information sectors account for a large share of employment in the county, as does the relatively lower-skilled transportation and warehousing sector. The latter is largely explained by the presence of San Francisco International Airport; however, as San Mateo County imports much of its low-skill labor, this ultimately has only a minor effect on local workforce characteristics.

CURRENT OVERVIEW

Employment in San Mateo County is concentrated in sectors requiring fairly highly skilled employees. As such, the county is home to a relatively large number of highly educated and well-paid workers. San Mateo County has one of the largest shares of well-educated residents in California, with almost 43% of the population having attained a bachelor's degree or higher. Drawing upon this base of skilled laborers, professional and technical services is the largest single category of employment in the county. This section of the report details the status of employment and the relative economic concentrations in the county at the end of 2007. This period is chosen as it is the last quarter before the official start of the very recent recession. Although, the recession officially started in December of 2007, as determined by the National Bureau of Economic Research, most of the fourth quarter of 2007 is pre-recession. Accordingly, it still paints a reasonably accurate picture of the employment situation in the county just prior to the genuine onset of the recession. This is particularly true for San Mateo County, as the recession had a very late start here, beginning in the second quarter of 2008.

Table 1 provides an indication of the distribution of county employment across 2-digit North American Industrial Classification System (NAICS) codes. The table shows the level of employment in each sector in San Mateo County in the fourth quarter of 2007, along with each sector's share of total employment in the county and the equivalent share of employment statewide. As mentioned above, professional and technical services is the largest sector in the county by number of employees. Retail trade is a close second, followed by total government (federal, state, and local) and manufacturing employment. San Mateo is by no means unique in having such a large retail sector, or such a high proportion of its employment in government. In fact, some 26 of California's 58 counties have a similar concentration of retail, while 44 have a similar concentration of government employment. In most counties, combined government employment is one of, if not the largest provider of payroll jobs; in many counties, local government alone accounts for the single largest share of employment.

¹More recent data were not available at the time of writing.

However, the county's employment patterns do demonstrate several standout characteristics, most notably with respect to its professional and technical employment. The predominance of professional and technical services in San Mateo County is unique; it is the only county in the state where this sector is ranked number one. Furthermore, San Mateo is host to a very high proportion of manufacturing employment. Manufacturing only ranks as the fourth-largest sector or higher in 17 counties across California (less than one-third of all California counties). Also worthy of note is employment in transportation and warehousing. This sector is ranked seventh in San Mateo, making it one of just four counties with such an emphasis on employment in this sector. It is entirely possible that these concentrations in manufacturing and transportation and warehousing go hand in hand. The manufacturing in the county is generally export oriented and is highly concentrated in small, light, but expensive technology components. As such, much of the county's manufacturing is likely shipped out through SFO, which accounts for the majority of employment in transportation and warehousing. Manufacturers locate in the area for ease of access to shipping routes, and businesses engaged in logistics emerge to fill the demand for transportation needs.

Table 1: Distribution of Employment by Industry, Q4 2007

Industry	Employment	Share	CA Share	Difference
Professional and Technical Services	39,575	11.5	6.8	4.6
Retail Trade	37,157	10.8	11.0	-0.3
Total Government	31,258	9.0	15.7	-6.6
Manufacturing	31,091	9.0	9.1	-0.1
Accommodation and Food Services	29,646	8.6	8.3	0.3
Health Care and Social Assistance.	27,014	7.8	8.8	-1.0
Transportation and Warehousing	26,400	7.6	2.8	4.9
Administrative Support	19,530	5.7	6.3	-0.7
Construction	18,874	5.5	5.5	-0.0
Information	17,431	5.0	3.0	2.1
Finance and Insurance	14,710	4.3	3.8	0.5
Other Services	14,283	4.1	4.6	-0.5
Wholesale Trade	12,120	3.5	4.6	-1.1
Public Administration	10,514	3.0	5.2	-2.2
Real Estate and Rental and Leasing	6,498	1.9	1.8	0.1
Arts, Entertainment, and Recreation	5,704	1.7	1.6	0.1
Educational Services	5,390	1.6	1.7	-0.2
Management	5,285	1.5	1.3	0.2
Agriculture, Forestry, Fishing, and Hunting	2,001	0.6	2.4	-1.8
Utilities	792	0.2	0.4	-0.1
Mining, Quarrying, and Oil and Gas Extraction	41	0.0	0.2	-0.1
Total	345,434	100.0	100.0	0.0

Source: Bureau of Labor Statistics, Calculations by Beacon Economics

The final column of Table 1 highlights the relative concentrations of economic sectors in San Mateo County compared to California. This column indicates the extent to which the share of employment in each industry differs from that in the state as a whole. For professional and technical services, San Mateo's 11.5% share is 4.6 percentage points higher than that of the state as a whole. Manufacturing is on par with the state, while transportation

and warehousing is significantly more concentrated in the county than in the rest of the state, by nearly 5 full percentage points. The only other sector that stands out as being significantly more concentrated in San Mateo is the information sector. This is another extremely highly skilled, high value added, and high wage industry. On the other hand, government employment is noticeably underrepresented in San Mateo County: although it is still one of the largest sectors in the county, its share of overall employment falls 6.6 percentage points below that of California. Unsurprisingly, agriculture, forestry, fishing, and hunting also contributes a much smaller share of jobs in the county than in the state.

RECENT EMPLOYMENT DYNAMICS

San Mateo County has experienced some fairly dramatic swings in employment over the course of the last 15 years, as has much of the Bay Area. Between 1995 and late 2000, employment grew very rapidly, driven by the exuberant investment of the dot-com bubble. Employment peaked in the final quarter of 2000; then the IT bubble burst, ushering in a significant local recession that eliminated the last three years of job growth. In the aftermath of the bursting bubble, employment declined slightly faster than it had been growing leading into the recession. Employment bottomed out in the third quarter of 2003, at just under 324,000 positions, around where it had been in the first quarter of 1997. San Mateo County never fully recovered from the 2001 recession. Employment levels remained far below peak levels observed during the IT bubble – at the most recent peak, there were roughly 50,000 fewer jobs in the county than there were in the fourth quarter of 2000. Most of the county's key sectors experienced significant declines that still have not fully turned around. Although professional, scientific, and technical services saw fairly healthy growth after bottoming out, employment in this sector still failed to surpass its 2001 peak. Employment in transportation and warehousing, as well as in information, has been in fairly consistent decline since the 2001 recession. Surprisingly, manufacturing had made a bit of a comeback, but the recent recession has brought employment at manufacturing firms well below the trough reached after the 2001 recession.



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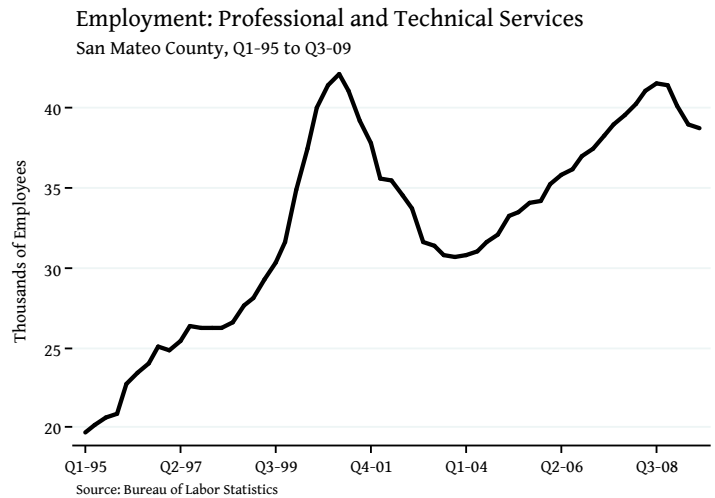
Professional and Technical Services

Professional and technical services generally employs some of the most skilled workers, as this sector includes companies engaged in the provision of legal services, accounting services, computer systems design, and scientific research and development services. At the end of the fourth quarter of 2007, employment was greatest in computer systems design and related services, at just under 12,150 employees. Note that the vast majority of employment in this subsector is in fact in custom computer programming services: only about 20% of workers in this

sector are engaged in physical computer systems design services, such as network and hardware development. A very close second was scientific research and development services, providing just 700 fewer jobs than computer systems design services. In San Mateo County this research is overwhelmingly in physical, engineering, and biological research, with nearly a quarter of employment in the subsector in biotechnology research.

This strength is likely to persist for some time, as an agglomeration of industry in a particular locale tends to attract broader interest in that local industry. In the first quarter of 2010, companies in the county received more than \$100 million in venture capital funding, with NGM Biopharmaceuticals, Inc. receiving some \$51 million in start-up and seed financing.

Having peaked at almost 3,600 employees in the second quarter of 2008, employment in biotechnology research and development has fallen to just under 3,000 positions in the latest data, the third quarter of 2009, which is still higher than in the fourth quarter of 2007. This represents a greater relative decline than for the sector overall (-18% compared to -6.9%), but it is likely that the recovery will also be faster than for the sector overall, as employment in biotechnology R&D peaked two quarters earlier.



Transportation and Warehousing

That a significant number of employees in San Mateo County should be involved in transportation and warehousing activities is hardly surprising, given the presence of San Francisco International Airport (SFO). In 2007, more than 14,000 individuals worked for establishments engaged in providing air passenger services, or well over half of the individuals employed in this sector. The vast bulk of these workers are employed in scheduled passenger air transportation, i.e., they work for airlines. The remaining employment in the transportation sector is largely concentrated in support activities for transportation, notably in arranging freight transportation (largely freight forwarders) and support services for air transportation, although a significant number of people are also employed as couriers and messengers. Warehousing and storage constitutes a minimal share of employment in the sector, as employment densities in this industry are very low.



Air transportation is responsible for the bulk of the decline in this industry, with downturns following the bursting of the dot-com bubble and 9/11. Because this industry provides such a large proportion of jobs in the transportation sector, trends occurring in air transportation are readily visible in the sector overall. Employment fell by nearly 8,000 workers between the end of 2000 and the end of 2003. The sector did recover briefly in early 2004, but it has been largely in decline since then. This ongoing decline is somewhat surprising as passenger volumes through SFO picked up noticeably through 2008, but employment did not grow with the increase in demand. However, the beleaguered airline industry has been aggressively cutting costs since about 2001, which to a large extent entails providing similar levels of service with far fewer employees.

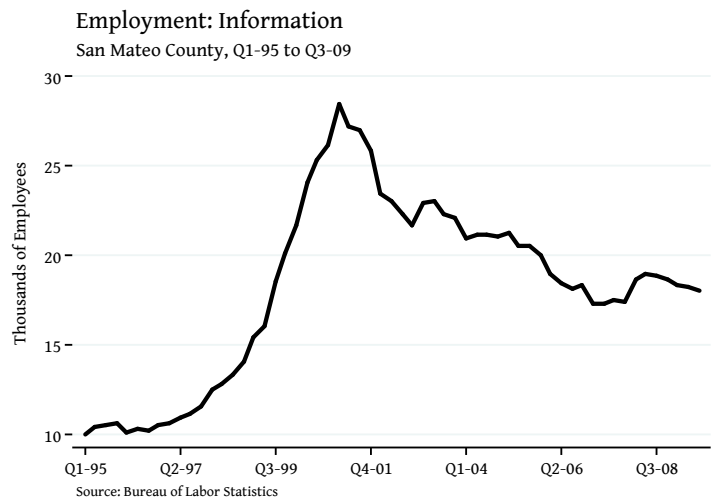
The decline in employment in the logistics sector observed over the course of the recent recession has come relatively evenly from its primary components. Only about 1,000 jobs have been shed from direct air transport services, nearly 2,000 from support activities for air transportation, and over 700 from freight forwarders.

Information

The information sector comprises establishments engaged in one of the following activities: producing and distributing information and cultural products, providing the means to transmit or distribute these products as well as data or communications, or processing data. This sector contains what is generally thought of as information technology services, including software publication, telecommunications carriers, data processing and hosting services, Internet publishing, and web search portals.

In San Mateo County, information technology plays a large role, primarily dominated by software publishers. More than half of employment in the information sector at the end of 2007 was accounted for by software publishing. Having surged during the latter part of the 1990s from some 3,500 employees to over 13,600 employees (an increase of almost 300%), employment at software publishing firms was astonishingly resilient. Employment in this industry did not peak until the third quarter of 2002, outliving the dot-com bubble by almost two full years. Thereafter, employment contraction was fairly severe: from peak to trough the number of jobs in software publishing fell by almost 4,500, a decline of 32.6%. However, as employment in this subsector did not bottom out until the second quarter of 2007, it was relatively immune to the ravages of the 2008-09 recession, hovering around 10,000 positions.

Video game developers play a big role in these employment trends. In particular, Electronic Arts, headquartered in Redwood City, is reported to have around 2,000 employees in San Mateo County. As such, this single company accounts for perhaps as much as 20% of employment in this category.



Manufacturing

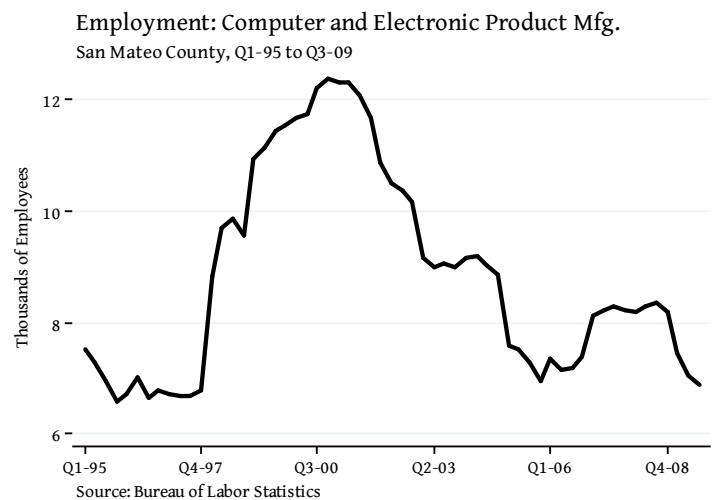
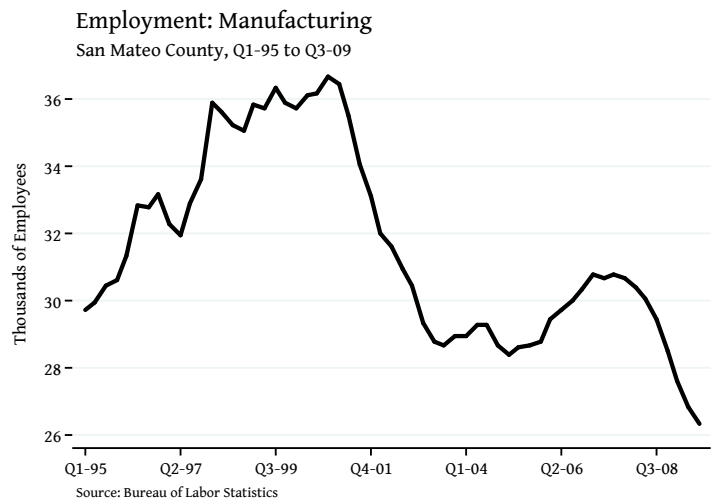
Manufacturing, though still a major sector in San Mateo County, has been far more affected by the recent recession than many others. The fourth-largest sector at the end of 2007, manufacturing is only the sixth-largest sector by share of employment as of the most recent data.

Roughly one-quarter of the employment in manufacturing in late 2007 was in computer and electronic product manufacturing. Most of this employment was engaged in either the manufacture of computer and peripheral equipment, electronic instruments, or semiconductor and electronic components.

Although computer and electronic products manufacturing is the predominant source of employment in San Mateo County's manufacturing sector, employment levels in the sector have been quite volatile. In the early 1990s, employment was in secular decline. The decline continued up until roughly 1997; at that point, the dot-com bubble began and production in the sector accelerated. This increase continued through 2000, with a substantial decline taking place during the recession of 2001–2003. After experiencing a brief resurgence in 2006, employment dropped to roughly a 14-year low during the recent recession, or to levels that are consistent with the plateau that was developing prior to the dot-com bubble.

Computer and peripheral equipment manufacturing is the dominant subsector in this manufacturing category. Through the early 1990s, employment in this subsector was relatively flat, at between 300 and 400 employees. In early 1996, employment began an upward trend that exploded in the first quarter of 1998, when employment increased from just under 600 at the end of 2007, to more than 2,500. Increases continued through 2000, reaching nearly 5,000 positions. The dot-com recession resulted in a significant contraction, and employment leveled off at the end of 2008, at roughly 3,350 employees.

Other subsectors that contribute significantly to employment in the computer and electronic products industry include communications equipment manufacturing and electronic instrument manufacturing. Both of these industries have been in a steady decline since the early part of the 1990s and were relatively immune to the dot-com bubble build-up and subsequent decline. Another important contributor, which saw a significant spike in employment during the dot-com bubble, was the



production of magnetic media products. Employment in that industry grew from almost nothing in 1990 to just over 1,700 positions in mid-2002; it has since nearly evaporated.

Other important sources of manufacturing employment in San Mateo County include food manufacturing; in particular, sugar and confectionary products and commercial bakeries. These industries have been relatively stable in the county, contributing routinely between 2,500 and 3,500 jobs. Jobs in this sector are extremely seasonal, explaining the significant fluctuations.

Employment Shares by Industry

As has overall employment by industry, the countywide shares of employment within industries has fluctuated significantly. Professional and technical services has risen from a 6.6% share in 1995 to more than a 12% share in the third quarter of 2009, while manufacturing has lost nearly 2 percentage points of share. Transportation and warehousing, financial services, and wholesale trade are similarly in decline. Finance and insurance has held relatively steady with a share of just over 4%, but this is down relative to its share of 5.6 percent in 1995. The significant increases in information, professional and technical services, and other skilled employment have reduced the relative importance of many other industries.

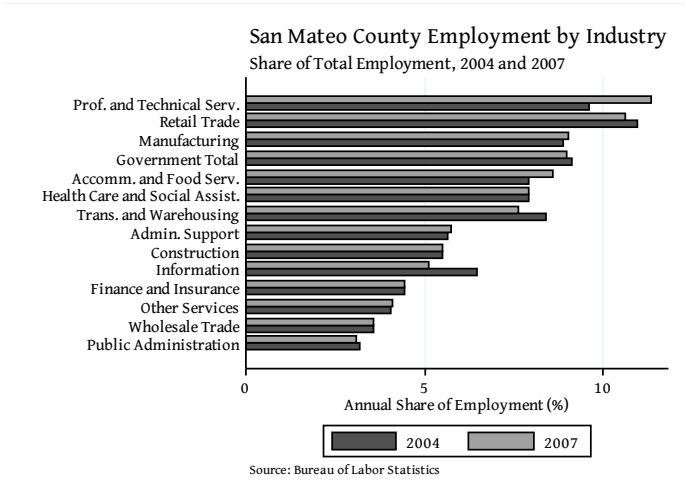
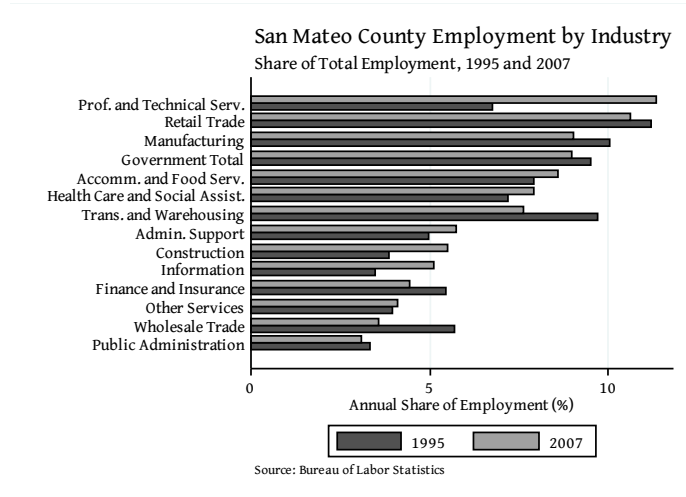
Table 2: Employment Shares by Industry, Q1-1995 to Q3-2009 (%)

Industry	Q1-95	Q1-01	Q1-04	Q4-07*	Q3-09
Total Employment	100.0	100.0	100.0	100.0	100.0
Professional and Technical Services	6.6	11.1	9.5	11.5	12.2
Retail Trade	11.2	10.5	10.9	10.8	10.3
Total Government	10.1	8.1	9.6	9.0	9.0
Manufacturing	10.0	9.6	8.8	9.0	8.3
Accommodation and Food Services	7.7	6.9	7.8	8.6	9.0
Health Care and Social Assistance	7.3	6.5	7.9	7.8	8.7
Transportation and Warehousing	9.8	9.1	8.5	7.6	7.5
Administrative Support	4.9	5.3	5.4	5.7	5.3
Construction	3.6	5.2	5.4	5.5	4.3
Information	3.4	7.6	6.5	5.0	5.7
Finance and Insurance	5.6	4.3	4.4	4.3	4.2
Other Services	3.9	3.6	4.1	4.1	4.4
Wholesale Trade	5.7	3.9	3.5	3.5	3.6
Public Administration	3.4	2.7	3.2	3.0	3.2
Real Estate and Rental and Leasing	2.7	2.0	2.0	1.9	1.8
Arts, Entertainment, and Recreation	1.3	1.1	1.3	1.7	1.6
Educational Services	1.0	1.0	1.5	1.6	1.5
Management	4.0	3.3	1.9	1.5	1.4
Agriculture, Forestry, Fishing, and Hunting	0.9	0.7	0.6	0.6	0.6
Utilities	0.2	0.2	0.2	0.2	0.3
Mining, Quarrying, and Oil and Gas Extraction	0.0	0.0	0.0	0.0	0.0

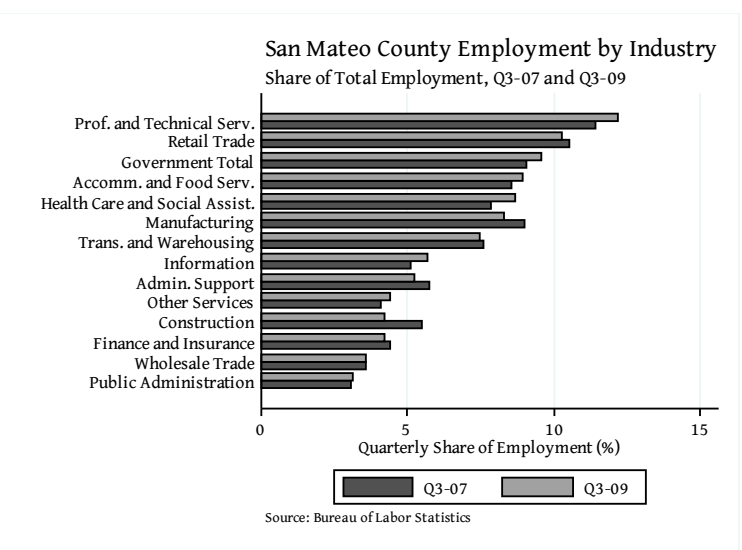
* The industries in the table are sorted by Q4-2007.

Calculations by Beacon Economics

The following two figures provide a more complete picture of the pattern of changes that have occurred in the county. Overall, between 1995 and 2007, the major employment growth drivers in the county were professional and technical services, construction, and information. Experiencing significant declines were retail (even before the onset of the recession in mid-2008), manufacturing, transportation and warehousing, and wholesale trade. This is the employment experience over the entire 13-year period. The figure on the right illustrates that changing employment shares between the trough of the dot-com recession and the recent pre-bubble peak. As discussed above, it is clear that professional and technical services continues to be an important growth area for the county, while information and transportation and warehousing are in decline.



Many of the overall trends from 1995 to 2007 were still developing in the recovery from the 2001 recession. However, some industries experienced significant changes in trajectory. In particular, manufacturing employment grew as a share of county employment between 2004 and 2007, suggesting that it had fallen further than fundamentals would indicate in the wake of the recession. Information is another such sector. Though elevated significantly from levels in the mid-1990s, employment in the information sector has not kept pace with overall countywide employment during the recovery. Wholesale trade is another sector that has been gaining ground recently, while trending towards a reduced role in the county over the long term.



The effects of the recession are quite predictable, as depicted in the figure comparing the third quarter of 2007 and 2009. With the recession beginning in the housing sector, share declines in construction, and transportation are not surprising. The subsequent decline in consumer activity and business investment has had a similar depressing effect on relative employment in manufacturing and retail, as employment in these sectors has fallen more than

in others. The continuing stalwart is professional and technical services, which has experienced declines that are smaller than those observed in other sectors and hence has increased its share of countywide employment.

Employment Concentrations in San Mateo County

The relative shares of industrial sectors in San Mateo County have changed considerably over time, and some sectors remain more heavily concentrated in San Mateo than in other parts of California. The table below indicates the difference in employment share between San Mateo County and the state as a whole. Positive numbers indicate a greater concentration in San Mateo while negative numbers indicate less representation of employment in the industry.

Between 1995 and 2007, several industries established or intensified a concentration while several others fell out of favor in the county. Among those falling out of favor are management, finance and insurance, real estate and rental and leasing, and wholesale trade. Professional and technical services and information have the most significant increases in concentration. This trend bodes well for the county, as both offer relatively highly skilled positions. At the same time, however, the overall share of information employment in the San Mateo economy has been in near continual decline.

Table 3: Industry Concentration Dynamics, Q1-1995 to Q3-2009

Industry	Q1-95	Q1-01	Q1-04	Q4-07	Q3-09
Transportation and Warehousing	6.8	6.1	5.8	4.9	4.7
Professional and Technical Services	1.1	4.5	3.4	4.6	5.3
Information	0.0	3.8	3.1	2.1	2.7
Finance and Insurance	1.5	0.6	0.2	0.5	0.5
Accommodation And Food Services	-0.0	-0.6	-0.1	0.3	0.4
Management	2.1	1.4	0.3	0.2	0.1
Real Estate and Rental and Leasing	0.8	0.3	0.1	0.1	0.0
Arts, Entertainment, and Recreation	-0.2	-0.3	-0.2	0.1	-0.2
Total Employment	0.0	0.0	0.0	0.0	0.0
Construction	-0.1	0.2	-0.1	-0.0	0.1
Manufacturing	-3.5	-2.8	-1.4	-0.1	-0.5
Utilities	-0.2	-0.2	-0.2	-0.1	-0.1
Mining, Quarrying, and Oil and Gas Extraction	-0.2	-0.1	-0.1	-0.1	-0.2
Educational Services	-0.2	-0.4	-0.1	-0.2	-0.3
Retail Trade	0.2	0.0	0.2	-0.3	-0.0
Other Services	0.3	-0.3	-0.4	-0.5	-0.7
Administrative Support	-0.6	-1.1	-0.7	-0.7	-0.4
Health Care and Social Assistance	-0.9	-1.4	-0.8	-1.0	-1.1
Wholesale Trade	1.3	-0.5	-0.8	-1.1	-0.9
Agriculture, Forestry, Fishing, and Hunting	-1.4	-1.3	-1.4	-1.8	-2.4
Public Administration	-2.4	-2.4	-2.1	-2.2	-2.7
Total Government	-6.6	-7.5	-6.6	-6.6	-6.7

Calculations by Beacon Economics

Comparable Counties

San Mateo County has a relatively high proportion of employees in the following sectors: information, professional and technical services, and transportation and warehousing. In the table below, we list other counties that have similar concentrations. For the purposes of this table, concentration is defined as having an industry employment share in the county that is 0.5 percentage points greater than the share statewide.

With respect to the very highly paid information sector, this puts San Mateo in some very rare company. Only Contra Costa, Los Angeles, and Santa Clara counties also have high employment in this sector relative to the state. With respect to professional and technical services, four other Bay Area counties have a significant concentration, as do San Diego and Orange counties, and somewhat surprisingly, El Dorado County.

Table 4: Comparably Clustered Counties

County	Industry	Q1-95	Q1-01	Q1-04	Q4-07	Q3-09	San Mateo Q4-07
Los Angeles County	Information	1.83	1.36	2.18	1.93	1.93	2.05
Santa Clara County	Information	-0.28	0.64	0.64	1.50	1.94	2.05
Contra Costa County	Information	1.39	1.71	0.94	0.64	0.25	2.05
San Francisco County	Prof. and Technical Serv.	4.65	6.02	4.82	6.52	6.12	4.61
Santa Clara County	Prof. and Technical Serv.	3.67	6.32	5.39	5.60	5.57	4.61
Marin County	Prof. and Technical Serv.	2.21	2.81	3.42	3.42	3.55	4.61
Alameda County	Prof. and Technical Serv.	-0.28	0.19	1.03	2.02	2.12	4.61
San Diego County	Prof. and Technical Serv.	1.33	1.55	1.76	1.62	1.82	4.61
Orange County	Prof. and Technical Serv.	0.73	0.08	0.49	0.73	1.04	4.61
El Dorado County	Prof. and Technical Serv.	-2.66	1.81	1.82	0.53	-0.15	4.61
Tehama County	Trans. and Warehousing	-0.50	6.82	6.38	5.36	3.98	4.88
Yolo County	Trans. and Warehousing	5.21	5.15	4.83	4.35	3.41	4.88
San Bernardino County	Trans. and Warehousing	1.69	2.04	3.05	3.51	3.78	4.88
San Joaquin County	Trans. and Warehousing	2.21	2.38	2.51	2.55	3.18	4.88
Shasta County	Trans. and Warehousing	0.90	0.97	0.41	1.68	1.20	4.88
Glenn County	Trans. and Warehousing		0.45	1.21	1.03	0.86	4.88
Los Angeles County	Trans. and Warehousing	0.61	0.94	0.77	0.67	0.65	4.88
Solano County	Trans. and Warehousing		-2.98	0.25	0.61	1.04	4.88

Calculations by Beacon Economics

Generally, San Mateo County is in predictable company. Where this company is not so predictable is with respect to transportation and warehousing. Nearly all of the counties that have a relative concentration in this sector have fairly low average annual wages. It is clearly the presence of SFO that generates this particular concentration.

Other Employment Dynamics

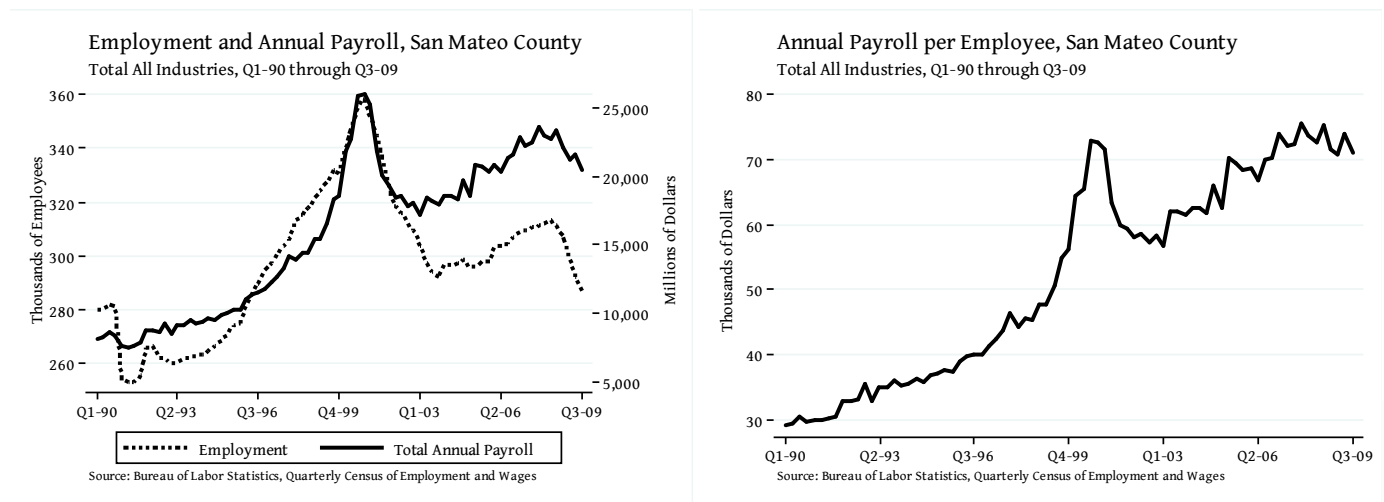
A quarterly data source produced by the Bureau of Labor Statistics is the Quarterly Census of Employment and Wages (QCEW). This data set includes information at the county level regarding business activity beyond employment. In particular, it includes information on the aggregate payroll in the county and the number of establish-

ments. It also provides an estimate of the nonfarm employment in the county. For a county such as San Mateo, which has very little farm activity, this data set is reasonably accurate. As dynamic as employment patterns in the county have been over the course of the last 20 years, so too have county payrolls and establishment sizes. This section will provide evidence of the changes in payroll, both in the aggregate and per employee, as well as establishments, both their number and their size, between 1990 and the third quarter of 2009.

County Payroll

In the years immediately following the recession of the early 1990s, San Mateo County was on a nice, fairly stable, upward trajectory in terms of both employment and overall annual payroll. In the late 1990s, however, the dot-com bubble set in, with dramatic increases in employment and in payroll per employee, driven by huge increases in investment and business spending. The figures below indicate the changes and extraordinary peaks that occurred at this time.

Employment began growing at an accelerated pace as early as 1996, followed by noticeable increases in total payroll shortly thereafter. Average annual pay did not really begin to grow above historical trends until 1998, but in just two years average salaries in San Mateo increased by almost 50%. Statewide, average annual wages only grew by 16.4% over the same period. With the bursting of the dot-com bubble, both employment and payroll took significant hits, but total payroll and average pay per employee remain above the trend path established in the early and mid-1990s. The IT bubble permanently elevated average compensation, which buoys total payroll. However, as employment growth was quite constrained in the years between the 2001 and 2008-09 recessions, total annual payroll remained significantly below its 2000 peak. Average pay per employee recovered fairly quickly, surpassing its previous peak in mid-2006.



The strong increase in payroll per employee seen during the dot-com bubble is due to dramatic increases in both employment and earnings in the following sectors: management, information, manufacturing, finance and insurance, and professional and technical services. All five of these sectors paid in excess of \$100,000 by 2000. Management of companies and enterprises saw the greatest increase: average annual wages skyrocketed 157%, reaching close to \$200,000. Pay in this sector was also hit the worst in the aftermath of the dot-com bubble. Of the five

sectors that saw tremendous increases in average wages, management is the only one where wages remain below their 2000 peak. In 2007 the sector paid 32% less on average than in 2000. In the information and manufacturing sectors, payroll per employee increased by around 83%; average pay in finance and insurance, and professional services grew by 49.2% and 46.4%, respectively. These increases were astronomical and as history now makes obvious, unsustainable.

Table 5: Average Annual Wages and Change, 1998 to 2007

Industry	1998 (\$)	2000 (\$)	Change 98-00 (%)	2007 (\$)	Change 00-07 (%)
Agriculture, Forestry, Fishing, & Hunting	22,360	25,584	14.4	32,136	25.6
Mining	53,976	64,376	19.3	56,108	-12.8
Utilities	63,700	62,140	-2.4	<i>N/D</i>	-
Construction	47,268	52,676	11.4	66,092	25.5
Manufacturing	57,668	105,404	82.8	116,272	10.3
Wholesale Trade	56,004	63,544	13.5	<i>N/D</i>	-
Retail Trade	28,288	35,464	25.4	36,244	2.2
Transportation and Warehousing	44,720	47,580	6.4	52,988	11.4
Information	67,444	123,396	83.0	142,480	15.5
Finance and Insurance	67,496	100,672	49.2	150,644	49.6
Real Estate and Rental and Leasing	35,308	43,888	24.3	53,456	21.8
Professional and Technical Services	71,968	105,352	46.4	114,400	8.6
Management of Companies and Enterprises	77,636	199,524	157.0	135,616	-32.0
Administrative and Waste Services	34,112	33,956	-0.5	46,696	37.5
Educational Services	25,428	32,916	29.4	40,040	21.6
Health Care and Social Assistance	34,840	38,376	10.1	56,784	48.0
Arts, Entertainment, and Recreation	23,764	23,244	-2.2	26,676	14.8
Accommodation and Food Services	16,224	18,304	12.8	22,308	21.9
Other Services	23,660	26,572	12.3	35,516	33.7
Government	40,872	45,032	10.2	59,678	32.5
Total All Industries	45,396	67,080	47.8	72,280	7.8

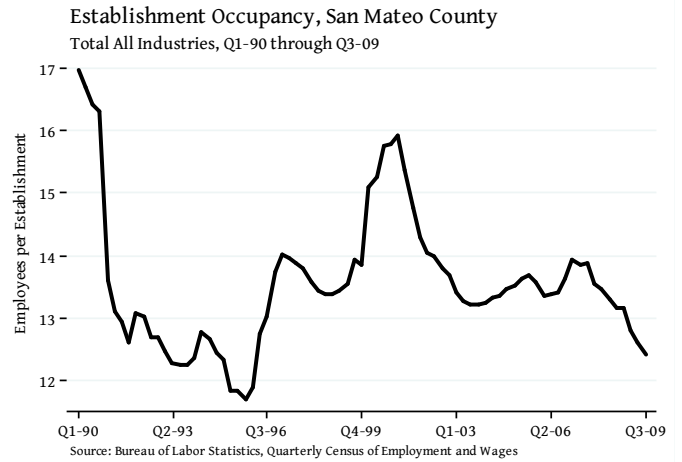
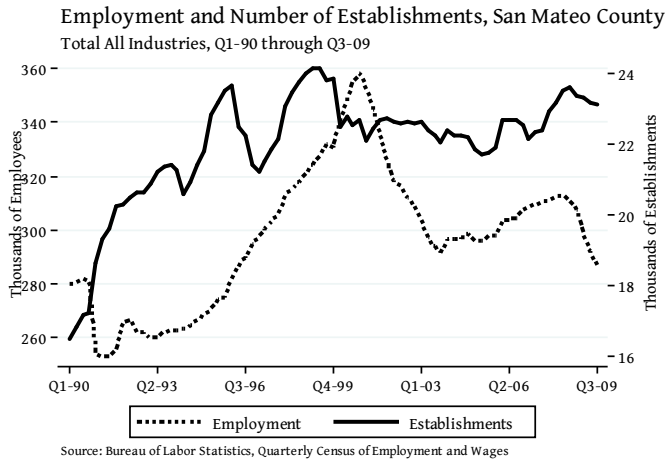
Source: Bureau of Labor Statistics, Calculations by Beacon Economics

In the years since the dot-com bubble burst, fewer sectors have seen large increases in wages. Notable exceptions are finance and insurance, and health care and social assistance. In both of these sectors, average compensation outgrew its 2000 peak by close to 50%. Several global financial firms have headquarters or major subsidiaries in San Mateo, including Visa in Foster City, which explains a significant amount of the strong growth seen in finance and insurance. In addition, wages in administrative and waste services, other services, and government have grown quite healthily, increasing by 32.5% to 37.5%. Wages in the two largest sectors – professional and technical services, and retail trade – have grown the slowest, surpassing their 2000 peak by a meager 8.6% and 2.2%, respectively. This has held down overall average wages, which are just 7.8% higher than they were in 2000.

Local Establishments

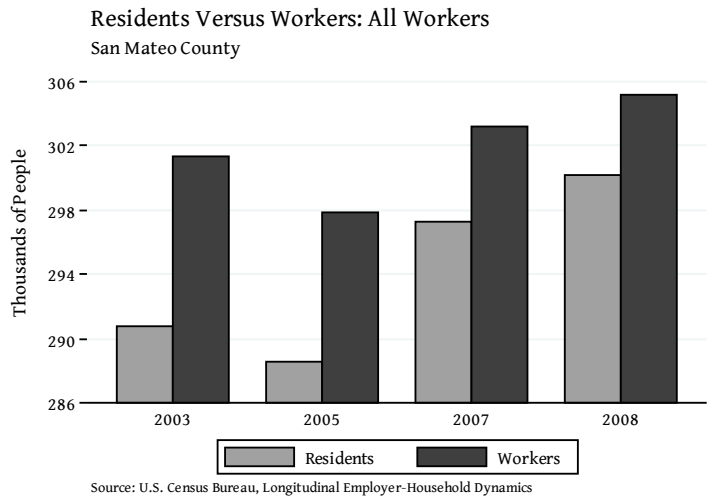
Equally dramatic swings were taking place with respect to establishment numbers and sizes in the county during this period. Beginning in about 1994, the number of business establishments in the county embarked on a remarkable increase that continued through 2000. The number of establishments in the county increased by roughly 20%

across this time period. Additionally, this run-up in the number of establishments coincided with an increase in the number of employees per establishment. Average employment per establishment increased from just 15.2 in 1994 to nearly 19 in 2000. During the boom years of the dot-com bubble, new firms were continually being established and many firms were expanding aggressively, driving the enormous increase in employment recorded during that time.



COUNTY LABOR SUPPLY VERSUS DEMAND

A relatively new data source that has become available permits the evaluation of the relative labor supply and demand in counties throughout the United States: the Longitudinal Employer-Household Dynamics (LEHD) database. These data provide information at the census block level regarding the age, earnings, and industry and census block of employment for those residing in a particular census block. The figure below provides estimates of the number of employed individuals who reside in San Mateo County versus the number of persons employed in San Mateo County, regardless of their county of residence.



As is reasonably clear, San Mateo County is a net importer of labor. Even if all employed individuals in the county were to remain in the county, they could not fill all of the jobs that are available. Simply put, there are more jobs available in San Mateo County than there are working residents. Some workers must necessarily commute into San Mateo to fill the demand for labor.

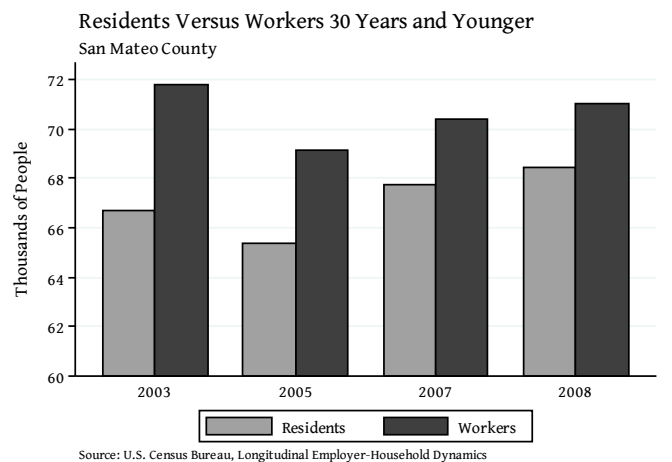
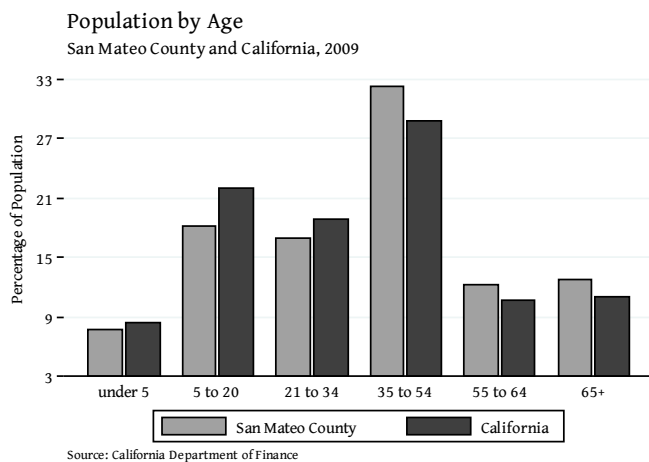
However, in 2007, only 41% of those employed in San Mateo County also lived within the county, so a much larger share of jobs in the county are filled by nonresidents. The next 40% was roughly evenly split between Santa Clara,

San Francisco, and Alameda counties, with each providing between 12% and 13.5% of employees to the county. Contra Costa rounds out the top five counties providing labor, filling just 5% of the jobs in San Mateo. By the same token, only 42% of those living in San Mateo also work in the county. With 58% of employed residents commuting out of the county for work, San Mateo is in the company of several counties typically regarded as bedroom communities, including Marin (58%), San Bernardino (53%), and Ventura (46%) counties. Of those workers commuting to other counties, 21% work in San Francisco, 17% work in Santa Clara, just over 8% are employed in Alameda, and slightly more than 2% travel to Contra Costa. So, the sources of employees in the county are more evenly distributed than the destinations to which employed residents travel.

The disconnect is even greater when you consider that not all workers have the same skills, are of the same age, or work in the same industry. In the rest of this section, we explore the discrepancies that exist by age, skills (proxied by earnings), and broad economic categories.

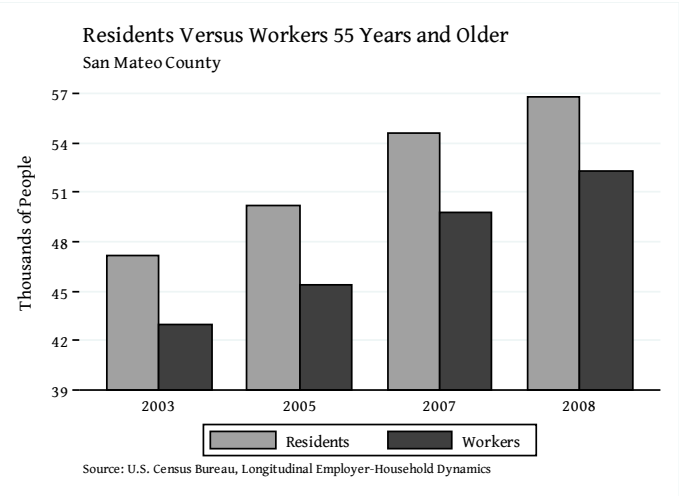
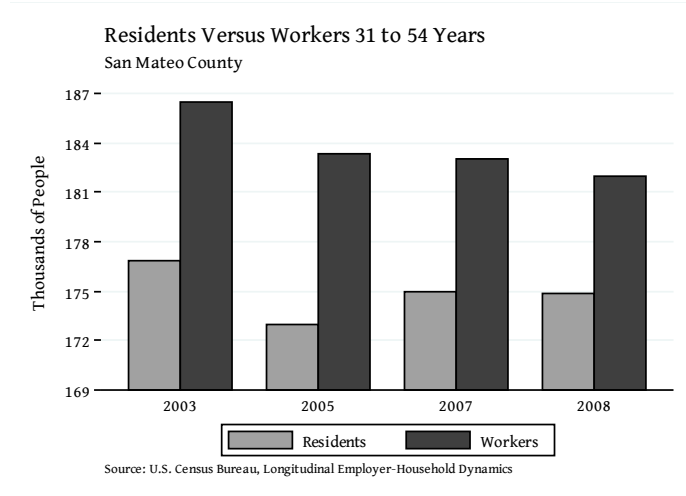
Supply Versus Demand: by Age

Generally speaking, employed residents of San Mateo County tend to be older than people who are employed in the county. In other words, the pool of people who live within San Mateo County and have jobs tends to be older than the pool of people who have jobs within the county. However, as shown in the following figure comparing the distribution of age groups in San Mateo and California, this is primarily owing to the age structure of the county and is not particularly tied to employment patterns. San Mateo County has a much higher proportion of residents over the age of 35, while there are significantly smaller shares of locals in the three youngest age groups. The three subsequent graphs show the number of employed residents within each age group compared to the number of people in that age group working in San Mateo County.



It is immediately clear that there are significantly more people working in the county under the age of 54 than there are working residents of San Mateo in this age bracket. On the other hand, there are far more San Mateo County residents with jobs over the age of 55 than there are people 55 years or older working in San Mateo County. In effect, San Mateo County exports older workers to other counties, while importing younger ones. The disconnect is greatest in the 31-to-54 years age group, which encompasses the largest share of the working-age

population. We must further consider that these effects are enhanced by the fact that 58% of San Mateo County residents commute to other counties for work. A substantial share of employed residents in each age bracket do not work in San Mateo County, so the county is importing more workers in the under 20 and 31-to-54 years categories than the difference between employed residents and workers in the county would initially indicate.



Supply Versus Demand: by Earnings

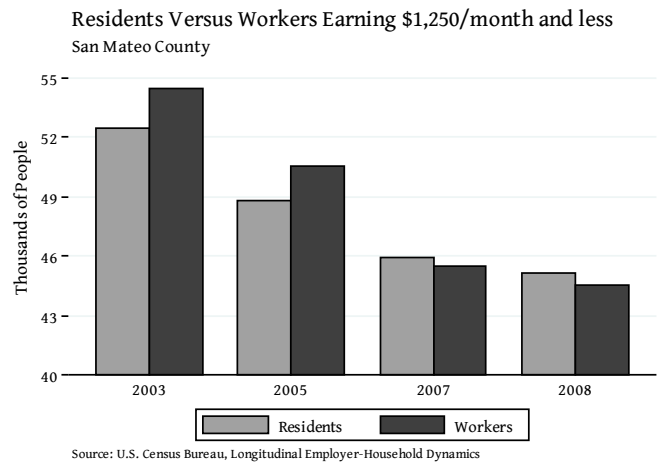
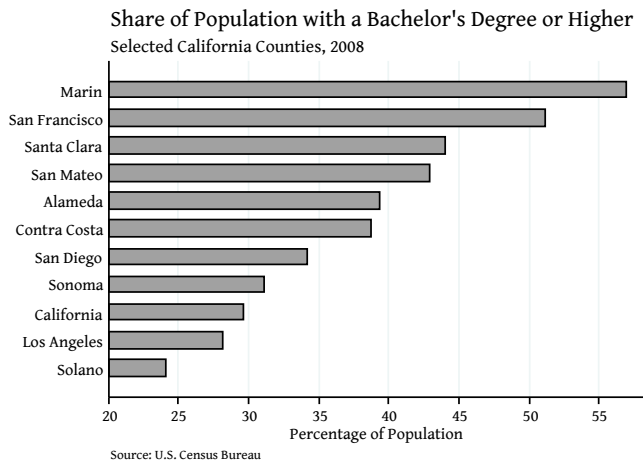
San Mateo County is home to an exceptionally highly skilled workforce. In terms of both average annual wages and educational attainment, two common measures of relative skill levels, the county is well above statewide averages. In fact, San Mateo County has the second-highest average annual compensation in the state and ranks fourth by the share of people with a bachelor's degree or higher. A highly impressive 43% of local residents finished college. In addition, the remaining top five counties that provide the majority of out-of-county labor for San Mateo and the majority of out-of-county jobs for San Mateo residents – Alameda, Contra Costa, San Francisco, and Santa Clara – also have relatively high wages and educational attainment levels.

The disparity between supply and demand by skill, as proxied by earnings, is much more even across earnings categories. Through 2005, San Mateo County imported labor across all earnings categories. This is not particularly surprising; because there are already insufficient local workers to fill all jobs in the county, and 58% of those workers commute to other counties for work, there is a considerable shortfall in the local labor supply. What is particularly interesting is that the demand for workers earning \$1,250 or less per month (\$15,000 per year) has been diminishing quite rapidly in recent years - so much so, that there is now an excess of employed residents in this earnings category. These people reside in San Mateo County but commute to low-wage jobs in other counties.

Table 6: Average Annual Wages, Q3-2009

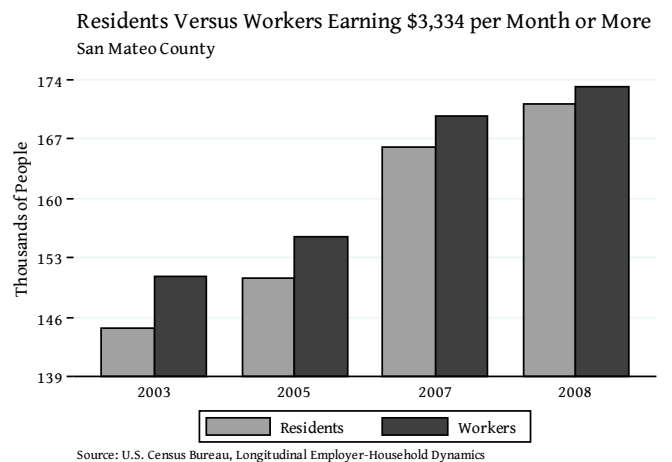
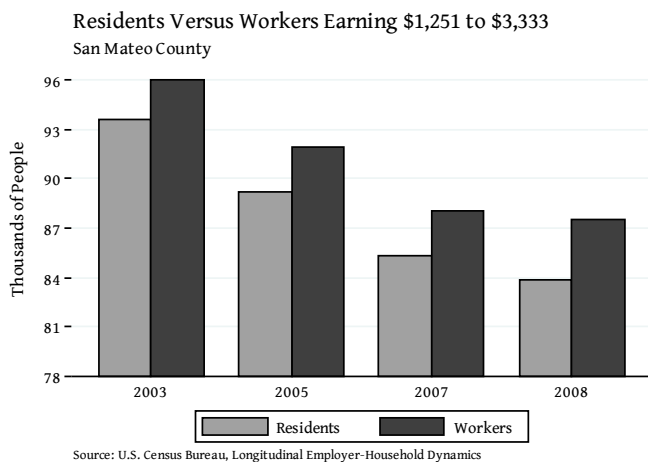
Area	Wages (\$)
Alameda County	55,744
Contra Costa County	52,676
Los Angeles County	47,528
Marin County	52,260
San Diego County	46,280
San Francisco County	65,416
San Mateo County	68,692
Santa Clara County	79,404
California	49,400

Source: BLS, QCEW



The demand for and supply of workers earning between \$1,251 and \$3,333 per month (up to \$40,000 per year) has also been diminishing, but less so than in the lowest income bracket. Note that in the two most recent years of data, which include the first year of the 2008-09 recession, the number of local residents in this income bracket has visibly declined, whereas the number of people employed in this category has remained fairly stable. This disparity points to the fact that San Mateo County was relatively sheltered from the root causes of this recession.

In contrast, both the demand for and the supply of workers in the highest earnings bracket have been increasing. Additionally, the supply of employed local residents earning over \$3,334 per month has been growing faster than the number of jobs that pay this much, so the disconnect has gotten smaller over time. Notably, there were no net employment losses from 2007 to 2008 in the highest earnings bracket. Keep in mind that average annual wages in San Mateo County were around \$6,010 per month (\$72,124 per year) in 2008, so the highest earnings category includes the majority of jobs in the county.

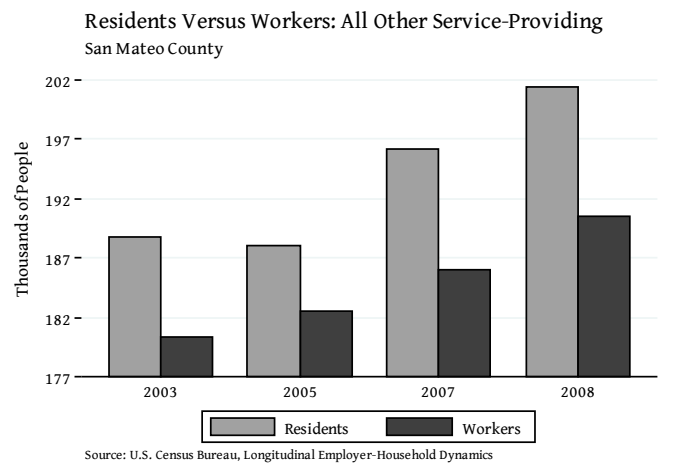
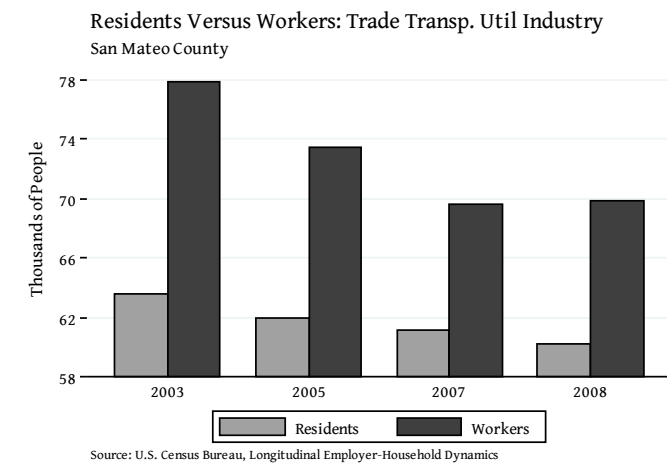
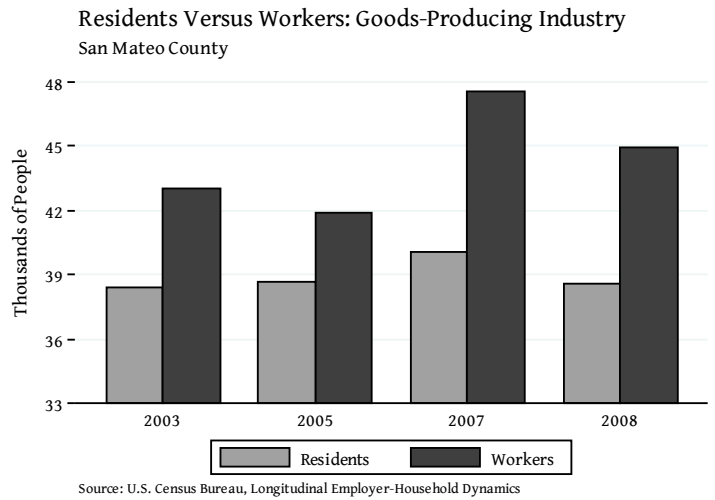


Another possible means of interpreting this data is that local residents have been shifting into higher earnings brackets and jobs in the county are becoming increasingly well-paid.

Supply Versus Demand: by Industry

Unfortunately, we are only able to illustrate the mismatch at the industry level using fairly broad economic sectors. Broadly speaking, there is far more demand for workers in lower-wage, lower-skill industries than there are local workers available to fill these jobs. The opposite is true for higher-skill, better-paid service sector jobs.

In the goods-producing industries, which include construction and manufacturing, there is a significant shortfall in the local labor supply. The influence of manufacturing is readily visible: through 2005, employment across goods-producing industries was in decline, but in 2006 and 2007 employment numbers climbed back up. Despite suffering significant declines, employment across goods-producing industries was still higher in 2008 than in 2005. The disconnect between the local labor supply and available jobs has been diminishing slightly. Although most of the jobs that were created in 2006 and 2007 appear to have been filled by nonresidents, there is also a greater decline in the number of jobs in goods-producing industries than there is a decline in the number of local residents working in these industries. Changes in the goods-producing industries seem to impact workers commuting into the county first.



Demand for workers in trade, transportation, and utilities, which includes wholesale and retail trade, and transportation and warehousing, has diminished steadily; however, from 2007 to 2008, the number of jobs in this sector actually increased. Nonetheless, the number of San Mateo County residents working in these industries still shrank, increasing the disparity between local labor supply and demand. As in the similarly lower-wage, lower-skill goods-producing industries (high-tech manufacturing being a notable exception), demand for workers in

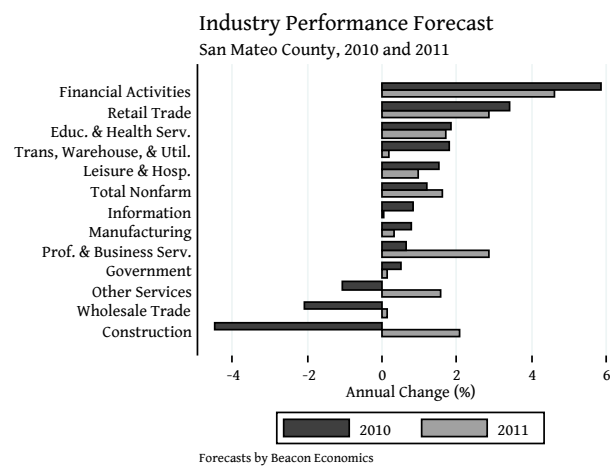
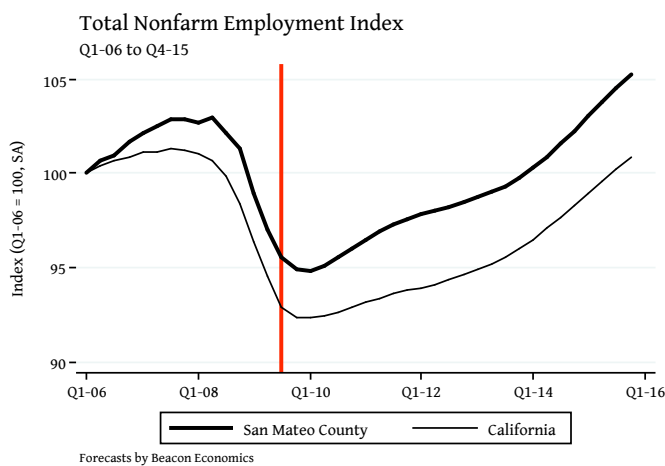
trade, transportation, and utilities consistently outstrips supply. Once again it appears that shifts in demand tend to be filled by people commuting into the county.

Finally, the supply of workers across all other service-providing industries is far greater than the number of available jobs in these industries. This broad sector includes very well-paid industries, such as professional, scientific, and technical services, information, and education and health services, but it also includes leisure and hospitality, which has the lowest average wages in the county. The bulk of jobs in San Mateo County fall into this broad grouping; however, most working local residents have jobs in these industries as well. As such, many local residents are forced to commute outside of the county for work. It is largely a result of this concentration of employment that such a sizable proportion of San Mateo County residents commute to work, in effect making the county a bedroom community. Employment across these industries grew from 2007 to 2008, as did the number of people working in them, further indicating that the recent recession had quite a late start in San Mateo County.

EMPLOYMENT FORECAST

Over the course of the last 20 years, employment in San Mateo County has ridden a bit of a roller coaster. Peaks, troughs, and recovery mark much of this recent history. In the past decade, employment peaked in the fourth quarter of 2000, at just over 380,000 jobs. In the following recession, these numbers fell to just under 324,000, having declined by nearly 15 percent. Growth resumed for the next four years, but employment has since declined by nearly 15,000. Given the ups and downs of the recent past, it is natural to wonder what the coming years might bring.

In this chapter we forecast employment and occupation growth over the course of the next five years. These forecasts are intended to provide guidance in these uncertain times. Overall, employment in the county is expected to grow by just over 9% from the levels experienced in the third quarter of 2009. We do expect that there when the data is available it will show small declines in the fourth quarter of 2009, so increases from current levels will be somewhat greater than 9%.



Industry Employment

Growth in employment in San Mateo County will be quite uneven across industries. As Table 7 indicates, we expect significant future growth in many industries, construction and information services in particular, but somewhat less growth in many others; notably, durables manufacturing and leisure and hospitality will see only small gains.

Table 7: Industry Growth, Q4-2009 to Q4-2015 (%)

Industry	Future Growth	Increase over Recent Maximum
Construction	25.17	-10.03
Durables Manufacturing	2.03	-16.60
Education and Health Services	11.42	9.02
Financial Activities	15.24	-1.41
Information	26.03	13.87
Leisure and Hospitality	5.27	-2.40
Manufacturing	5.73	-7.80
Nondurables Manufacturing	9.43	2.19
Other Services	8.74	5.92
Professional and Business Services	15.71	6.20
Trade, Transportation, and Utilities	7.69	-3.06
Total	11.33	1.52

Forecast by Beacon Economics

Although we are forecasting significant growth in several industries, the final column of Table 7 indicates that many industries in the county will not have reached their pre-recession peaks five years from now. For example, even though construction is one of the fastest-growing sectors going forward, at the end of 2010 construction will still be 10% below its peak. This speaks more to the glut in the industry going into the recession than to the overall health of the sector. Similarly, financial activities is expected to be one of the faster-growing sectors in the near future, but it will also fail to reach its recent maximum. Growth in this sector is largely driven by the record profits seen in the banking industry last year. Among the sectors that will match and exceed their pre-recession levels are those with the highest wages and significant demand for skilled labor. In particular, the information, education and health care, and professional and business services sectors will substantially surpass their pre-recession peaks going forward.

Occupation Employment

Just as there will be widespread increases in employment across industries, most occupations in San Mateo County will also see significant growth. Again, this growth is from very depressed positions and not all occupations will recover their pre-recession levels. As indicated in Table 8, overall growth will amount to roughly 11.5%. This growth results in an increase over the recent peak of just over 1.5%. The next five years will therefore be a period of recovery rather than growth in the overall economy.

The right hand column of the table indicates the extent of recovery for each of the occupations listed. In the table, there is a rough correlation between the skill requirements, and hence wages, of each occupation and its overall recovery or growth. Reading from the top of the table to the bottom, occupations go from having high-skill to relatively low-skill requirements. Most of the occupations in the upper half of the table will see growth relative to the recent peak, while most in the bottom half will not. Notable exceptions include construction and extraction, and architecture and engineering in the top half and health care support, and building and grounds cleaning and maintenance in the bottom half.

Table 8: Occupation Employment Growth, Q4-2009 to Q4-2015 (%)

Occupation	Wages (\$)	Future Growth	Increase over Recent Peak
Management	127,510	11.66	1.08
Legal	121,990	13.73	4.07
Computer and Mathematical	93,000	16.15	5.24
Health Care Practitioners and Technical	91,010	11.65	7.87
Business and Financial Operations	89,360	13.33	2.84
Architecture and Engineering	84,710	10.28	-2.07
Life, Physical, and Social Science	82,100	16.03	6.57
Arts, Design, Entertainment, Sports, and Media	69,860	16.01	6.54
Education, Training, and Library	61,650	11.45	8.88
Construction and Extraction	61,360	24.05	-8.65
Protective Service	52,850	13.65	4.87
Community and Social Services	52,070	11.04	8.60
Installation, Maintenance, and Repair	51,130	11.23	1.04
Sales and Related	50,740	10.10	-0.31
Office and Administrative Support	42,130	11.66	1.77
Transportation and Material Moving	39,810	9.06	-0.80
Health Care Support	37,370	11.25	8.14
Production	35,690	7.39	-4.07
Personal Care and Service	31,330	7.55	-0.32
Building and Grounds Cleaning and Maintenance	29,970	12.35	4.38
Food Preparation and Serving-Related	24,190	5.76	-1.89
Total	60,430	11.33	1.52

Source: California Employment Development Department, Forecast by Beacon Economics

SUMMARY

Over the past 15 years, San Mateo County's economy has seen periods of enormous growth and substantial contraction. Beginning in the late 1990s, the local economy embarked on a path of unprecedented growth. From the beginning of 1998 to the end of 2000, the county saw the introduction of over 44,000 new jobs, a relative increase of over 13%. Total payroll and average wages skyrocketed at this time, as did the number and size of establishments. New economic concentrations developed in these years as well, most notably in information technology. San Mateo County carved a unique niche for itself with its emphasis on professional and technical services, infor-

mation, and high-tech manufacturing. However, once the dot-com bubble burst, many of the extraordinary gains from the previous three years were eliminated. The county's economy had grown to unsustainable levels, driven by the exuberance of the dot-com bubble. The years since then have been marked by recovery.

By the time employment bottomed out in the third quarter of 2003 all of the new jobs added plus an additional 10,000 jobs had been eliminated. When employment peaked again at the onset of the recent recession, the county had still only recovered approximately 15,000 jobs. At the most recent employment peak in the second quarter of 2008, almost 41,000 fewer people were employed in the area than at the height of the dot-com bubble. Employment across most major sectors never fully recovered; some sectors, including information, have been in near continual decline since the bursting of the IT bubble. On the other hand, the increases in wages that occurred from 1998 to 2000 appear to have been more lasting, as wages in the county continue to be very high relative to statewide averages. The number of establishments also remains elevated. Many firms were able to weather the 2001 recession by "trimming the fat"; average per firm employment fell sharply.

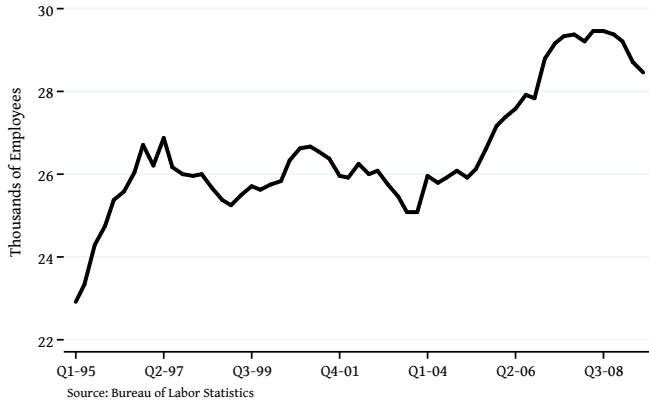
The recent recession once again undid years of employment growth, further impeding San Mateo County's long, arduous recovery. Arguably, San Mateo's economy was so overinflated in 2000 that employment levels reached then will not be attained for many, many years to come. As of the most recent data, there were 10,000 fewer jobs in San Mateo County than in the post dot-com *trough*. Over the life of our forecast, which extends through the end of 2015, the region will easily surpass its 2008 employment peak; however, employment will still be close to 35,000 jobs less than in 2000. On a positive note, the predominance of high-skill, high-wage industries in San Mateo County will provide a solid foundation and a powerful engine for future growth.

In essence, San Mateo County is both a bedroom community – only 41% of residents are employed in the county – and a source of jobs to workers outside of the county. Some 60% of jobs in San Mateo are filled by workers commuting from another Bay Area county. This feature of the county has been increasing since the bursting of the dot-com bubble in 2001, suggesting an increasing mismatch between those employed in the county and the jobs available.

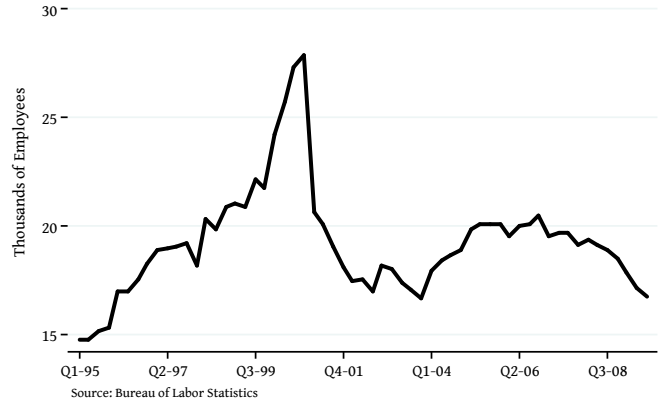
This observation is linked to a crucial question: How can San Mateo grow in the future to maximize the return to its current resources? The county is in an enviable position because its resources are considerable, but it is also limited. Its residents are very well educated, but at the same time older than residents in much of the rest of the state. Its real estate is valuable, suggesting that there is perhaps a shortage of housing; the extent of nonresident employees in the county is also suggestive of this need. There are myriad tradeoffs that need to be considered, including the needs of residents versus the needs of local businesses. The options for meeting the needs of both groups are clear, but the best solutions are not. These are complicated policy issues, but the county is fortunate in having many good options.

Appendix 1: San Mateo Employment Dynamics by Detailed Industry

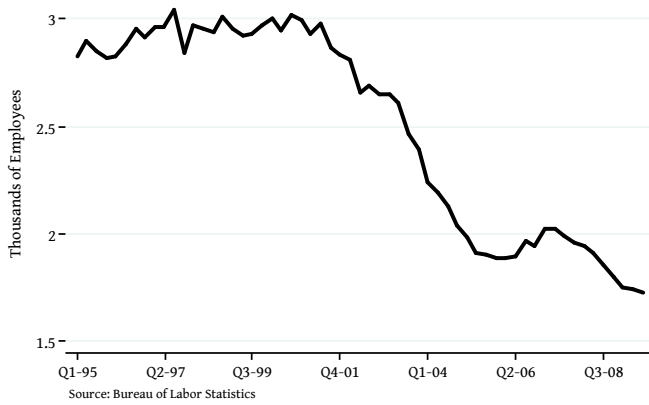
Employment: Accommodation and Food Services
San Mateo County, Q1-95 to Q3-09



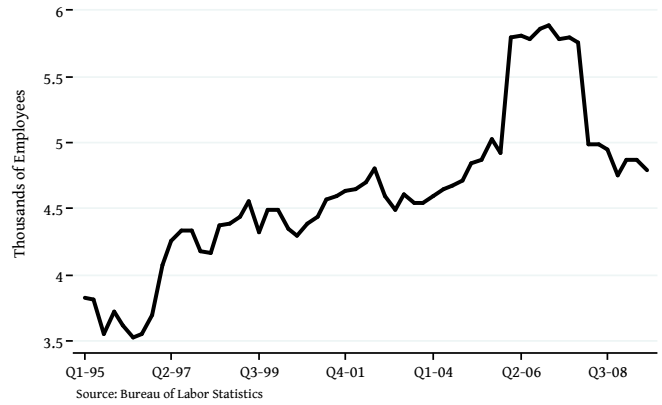
Employment: Administrative Support
San Mateo County, Q1-95 to Q3-09



Employment: Agriculture, Forestry, Fishing, and Hunting
San Mateo County, Q1-95 to Q3-09



Employment: Arts, Entertainment, and Recreation
San Mateo County, Q1-95 to Q3-09



Employment: Construction
San Mateo County, Q1-95 to Q3-09



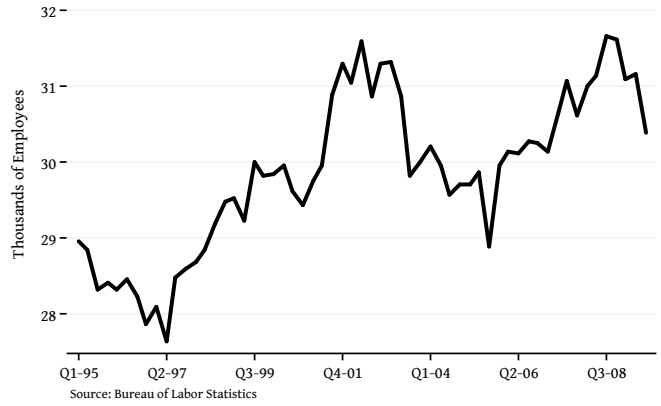
Employment: Educational Services
San Mateo County, Q1-95 to Q3-09



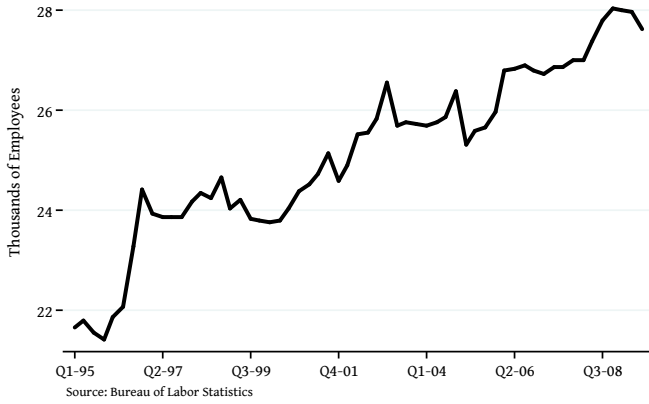
Employment: Finance and Insurance
San Mateo County, Q1-95 to Q3-09



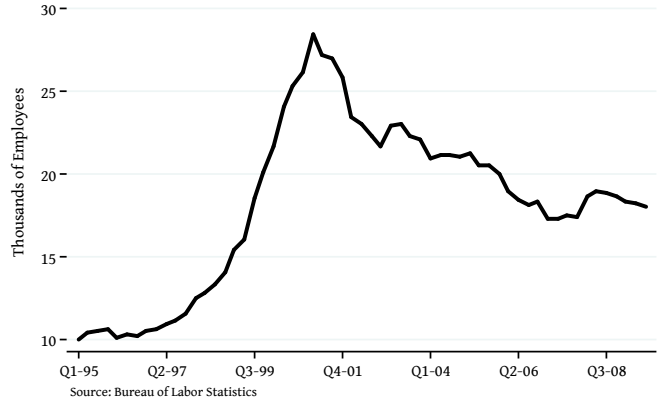
Employment: Government Total
San Mateo County, Q1-95 to Q3-09



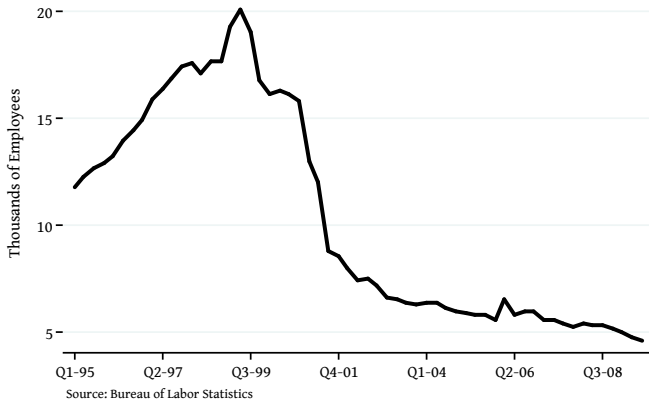
Employment: Health Care and Social Assist.
San Mateo County, Q1-95 to Q3-09



Employment: Information
San Mateo County, Q1-95 to Q3-09



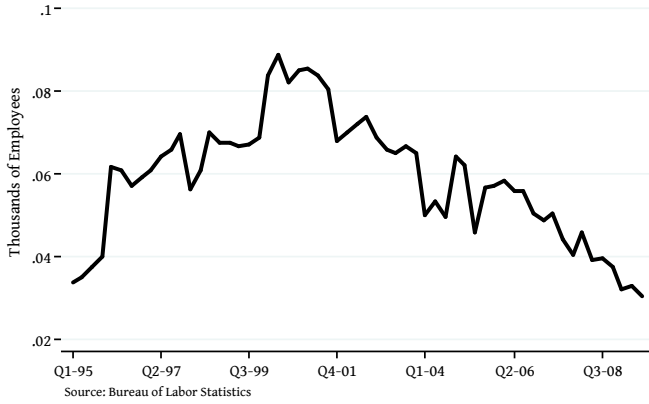
Employment: Management
San Mateo County, Q1-95 to Q3-09



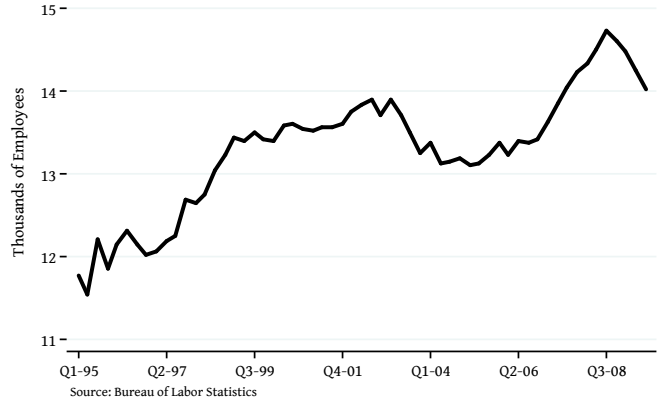
Employment: Manufacturing
San Mateo County, Q1-95 to Q3-09



Employment: Mining, Quarrying, and Oil and Gas Extraction
San Mateo County, Q1-95 to Q3-09



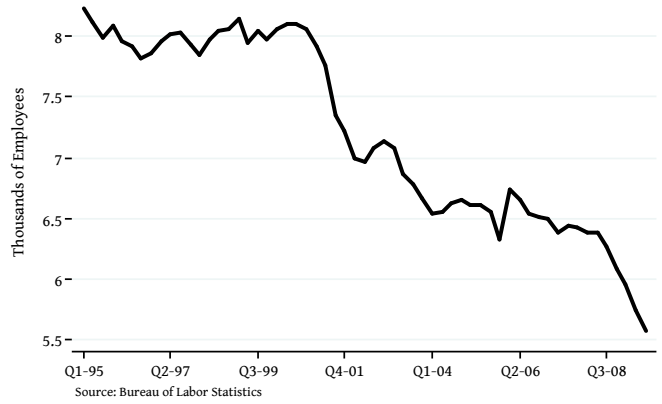
Employment: Other Services
San Mateo County, Q1-95 to Q3-09



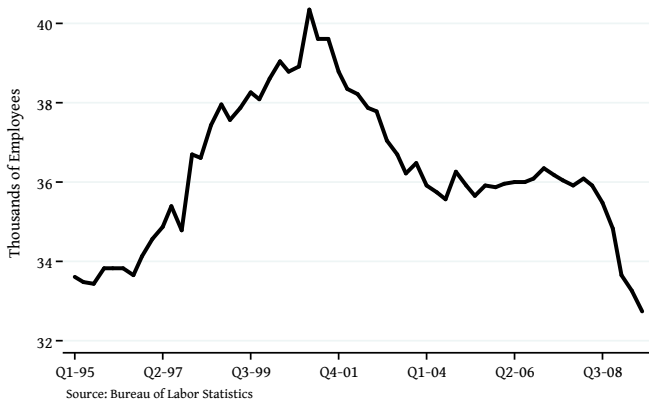
Employment: Professional and Technical Services
San Mateo County, Q1-95 to Q3-09



Employment: Real Estate and Rental and Leasing
San Mateo County, Q1-95 to Q3-09



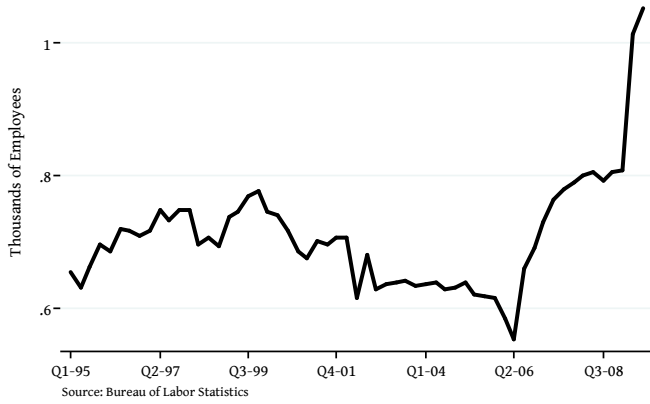
Employment: Retail Trade
San Mateo County, Q1-95 to Q3-09



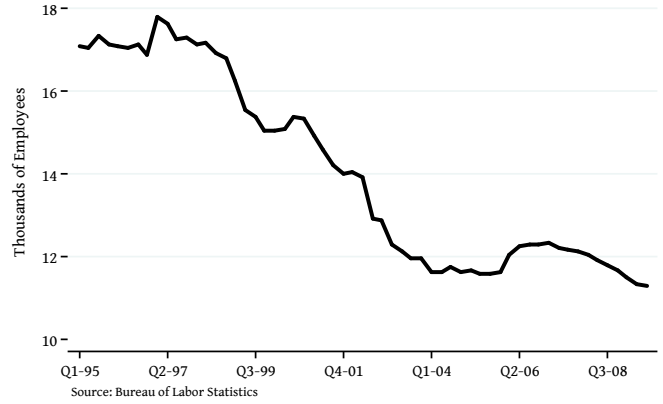
Employment: Transportation and Warehousing
San Mateo County, Q1-95 to Q3-09



Employment: Utilities
San Mateo County, Q1-95 to Q3-09



Employment: Wholesale Trade
San Mateo County, Q1-95 to Q3-09



Appendix 2: Labor Mismatch by Detailed Industry

The figures in this appendix indicate the extent to which there is a surplus of workers in the particular industry in San Mateo, or a deficit. If the bars indicate a negative number, there is a deficit of workers for this industry currently residing in the county. In other words, there are more people working in this industry in San Mateo than there are residents employed in this industry.

