

After the Bubble: Sustaining Economic Prosperity

Appendix A: Economic Performance and Quality of Life

January 2002

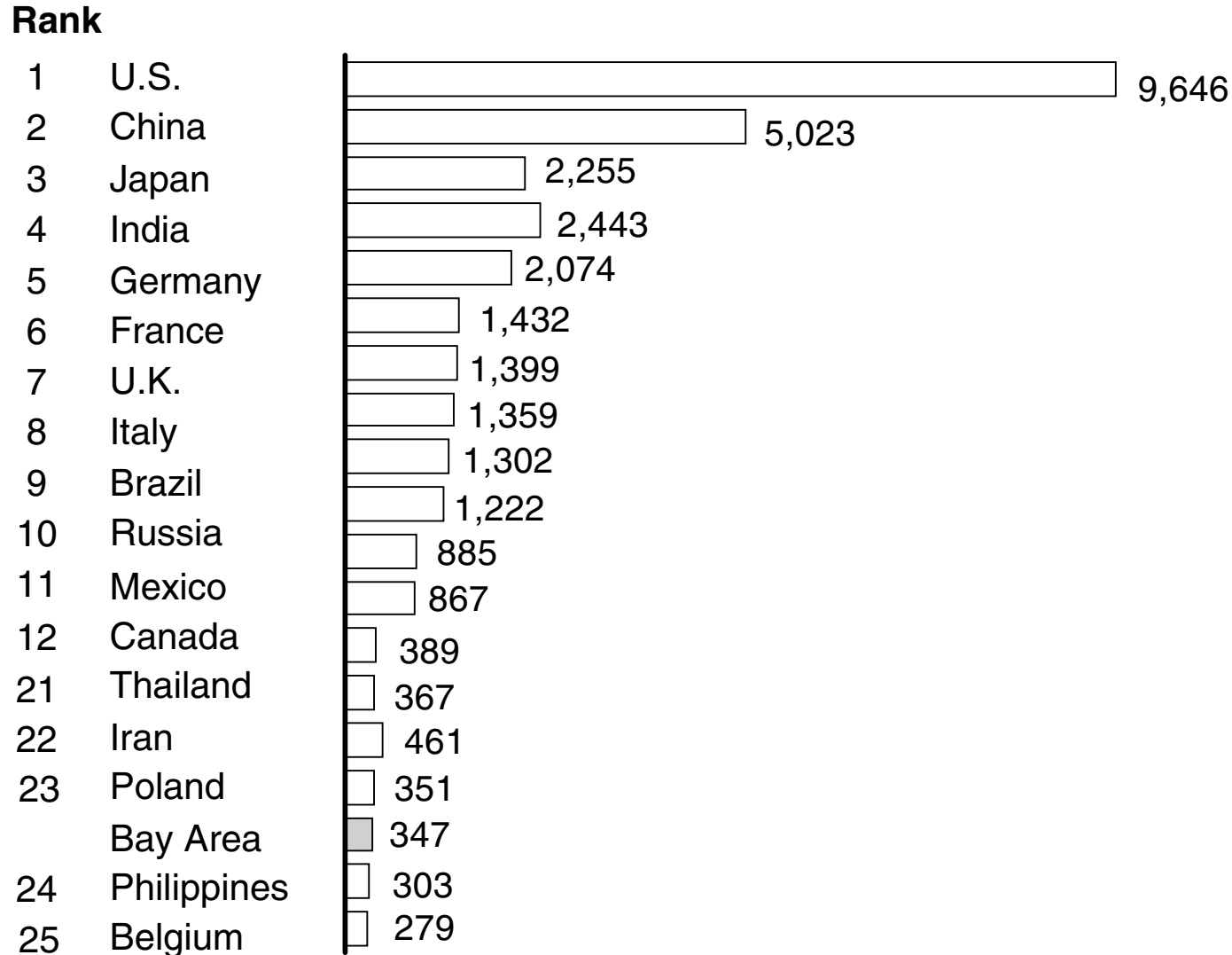
A-1: Economic Performance

For Web-based appendix

SIZE OF BAY AREA COMPARES FAVORABLY WITH TOP 25 NATIONAL ECONOMIES

GDP adjusted for purchasing power parity - 2000

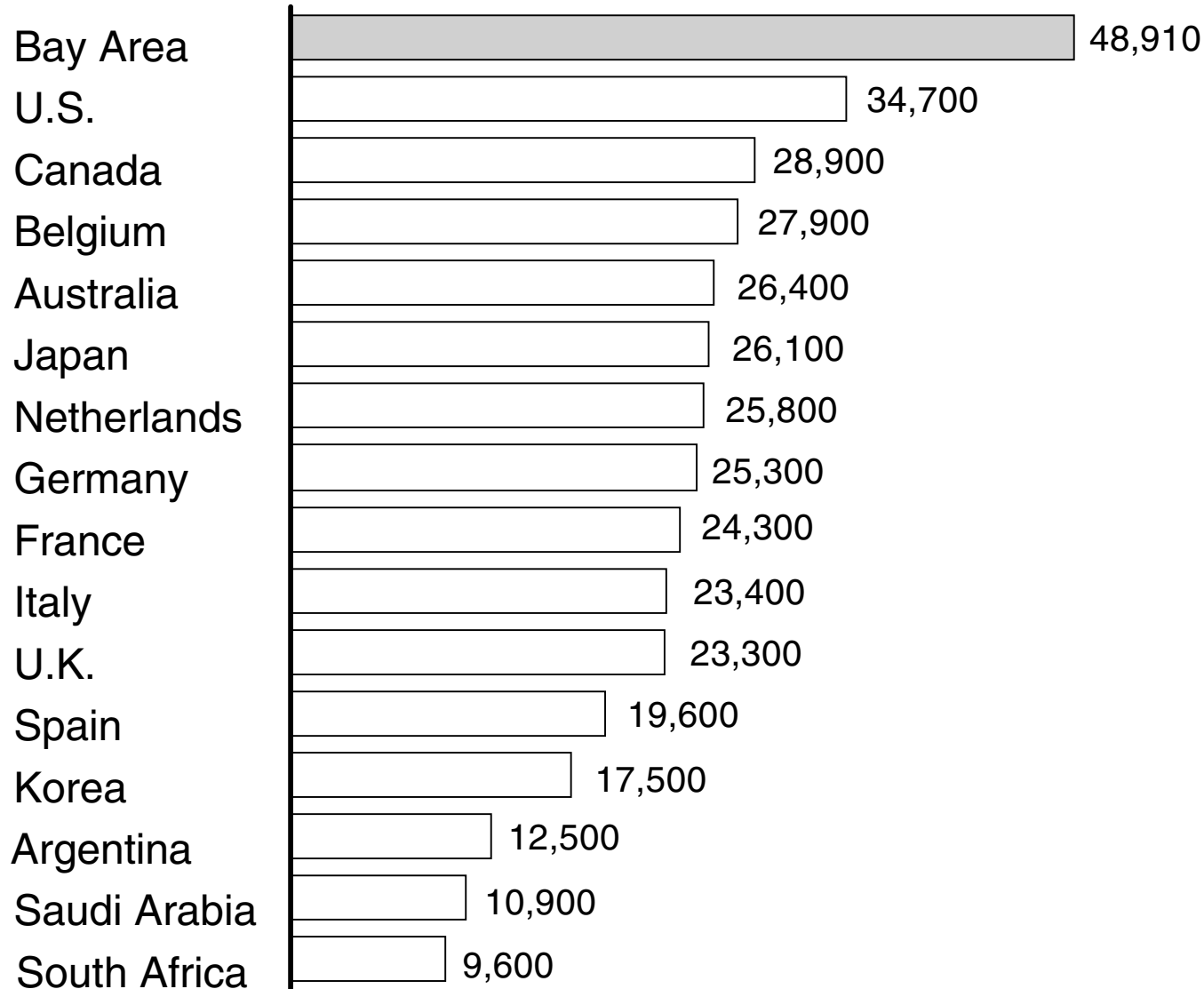
\$ Billions



ON PER CAPITA BASIS, BAY AREA ECONOMY IS AHEAD OF ALL NATIONAL ECONOMIES

PPP GDP per capita – 2000

International dollars



BAY AREA FORTUNE 500 HEADQUARTERS

1995

Hewlett-Packard
 Chevron
 McKesson HBOC
 Intel
 Safeway
 Wells Fargo
 PG&E Corp.
 Sun Microsystems
 Gap
 Oracle
 Applied Materials
 Apple Computer
 Quantum
 Advanced Micro Devices
 Longs Drug Stores
 Golden West Financial Corp.
 Seagate Technology
 American President
 BankAmerica Corporation
 Consolidated Freightways
 Levi Strauss Associates
 Pacific Telesis Group
 Southern Pacific Rail
 Transamerica

- 24 companies
- 12 exits since 1988
- 18 entrants since 1988

1998

Hewlett-Packard
 Chevron
 Intel
 Safeway
 Wells Fargo
 PG&E Corp.
 Cisco Systems
 Sun Microsystems
 Solectron
 Gap
 Oracle
 Applied Materials
 Apple Computer
 Charles Schwab
 CNF Transportation
 3Com
 Quantum
 Golden State Bancorp
 Longs Drug Stores
 Golden West Financial Corp.
 Knight-Ridder
 Seagate Technology
 Air Touch Communications
 Silicon Graphics
 Transamerica

- 25 companies
- 8 exits since 1995
- 9 entrants since 1995

2000

Hewlett-Packard
 Chevron
 McKesson HBOC
 Intel
 Safeway
 Wells Fargo
 PG&E Corp.
 Cisco Systems
 Sun Microsystems
 Solectron
 Gap
 Oracle
 Applied Materials
 Apple Computer
 Charles Schwab
 CNF Transportation
 Providian Financial
 3Com
 Quantum
 Advanced Micro Devices
 Golden State Bancorp
 Clorox
 Longs Drug Stores
 Golden West Financial
 Sanmina
 Knight-Ridder

- 26 companies
- 4 exits since 1998
- 5 entrants since 1998

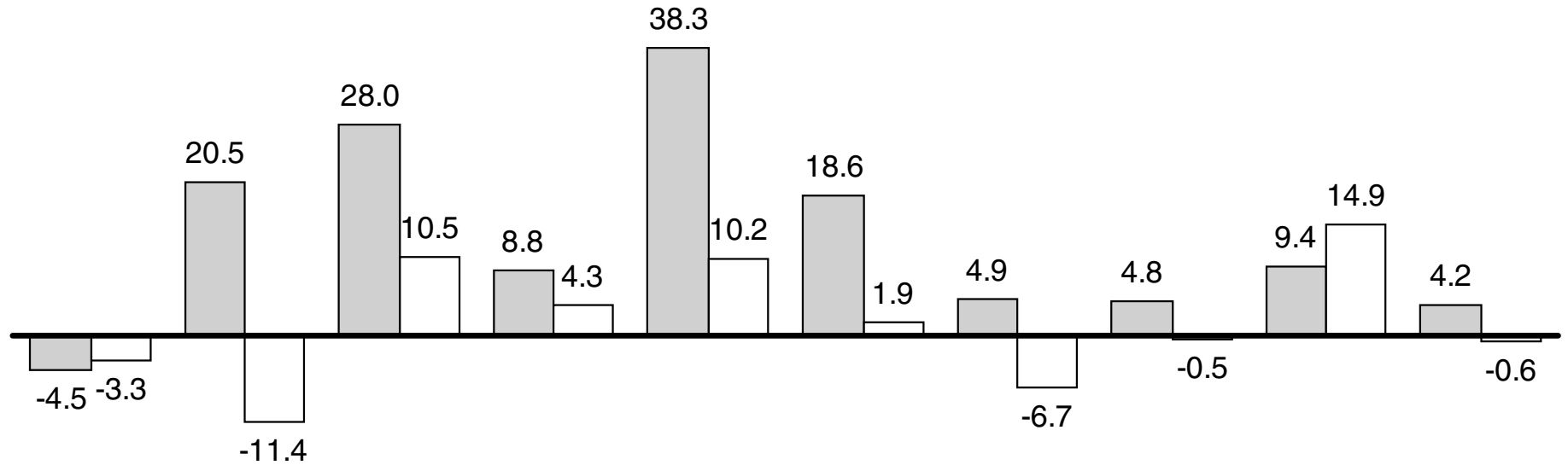
BAY AREA COMPANIES TYPICALLY OUTPERFORM INDUSTRY AVERAGE

Bay Area
 All U.S. companies

Average total shareholder returns*, 1995-2000

Percent

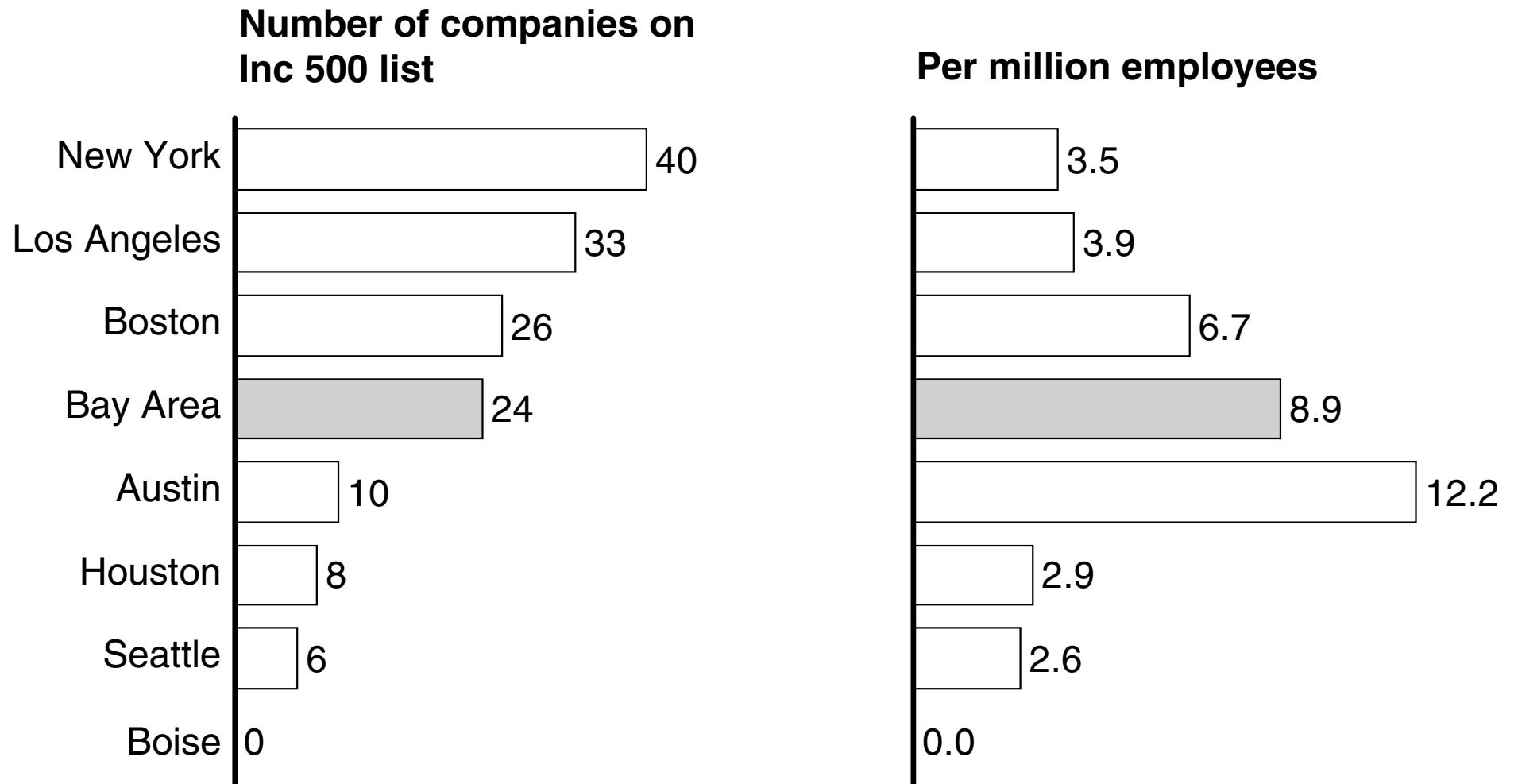
Bay Area companies outperform the U.S. average in nearly twice as many sectors as they underperform*



Industry	Networking equipment	Application software	Banks	Biotech	Diversified financial services	Computer hardware	Systems software	Semi-conductor equipment	Semi-conductors	All sectors
Examples of Bay Area Companies	<ul style="list-style-type: none"> • Cisco 	<ul style="list-style-type: none"> • PeopleSoft • Intuit 	<ul style="list-style-type: none"> • Golden West • Wells Fargo 	<ul style="list-style-type: none"> • Genentech 	<ul style="list-style-type: none"> • Schwab 	<ul style="list-style-type: none"> • Sun • Palm • HP 	<ul style="list-style-type: none"> • Veritas • Oracle 	<ul style="list-style-type: none"> • Applied Materials 	<ul style="list-style-type: none"> • Intel 	

* Average returns of Bay Area companies higher than industry average in 37 of 57 industries analyzed

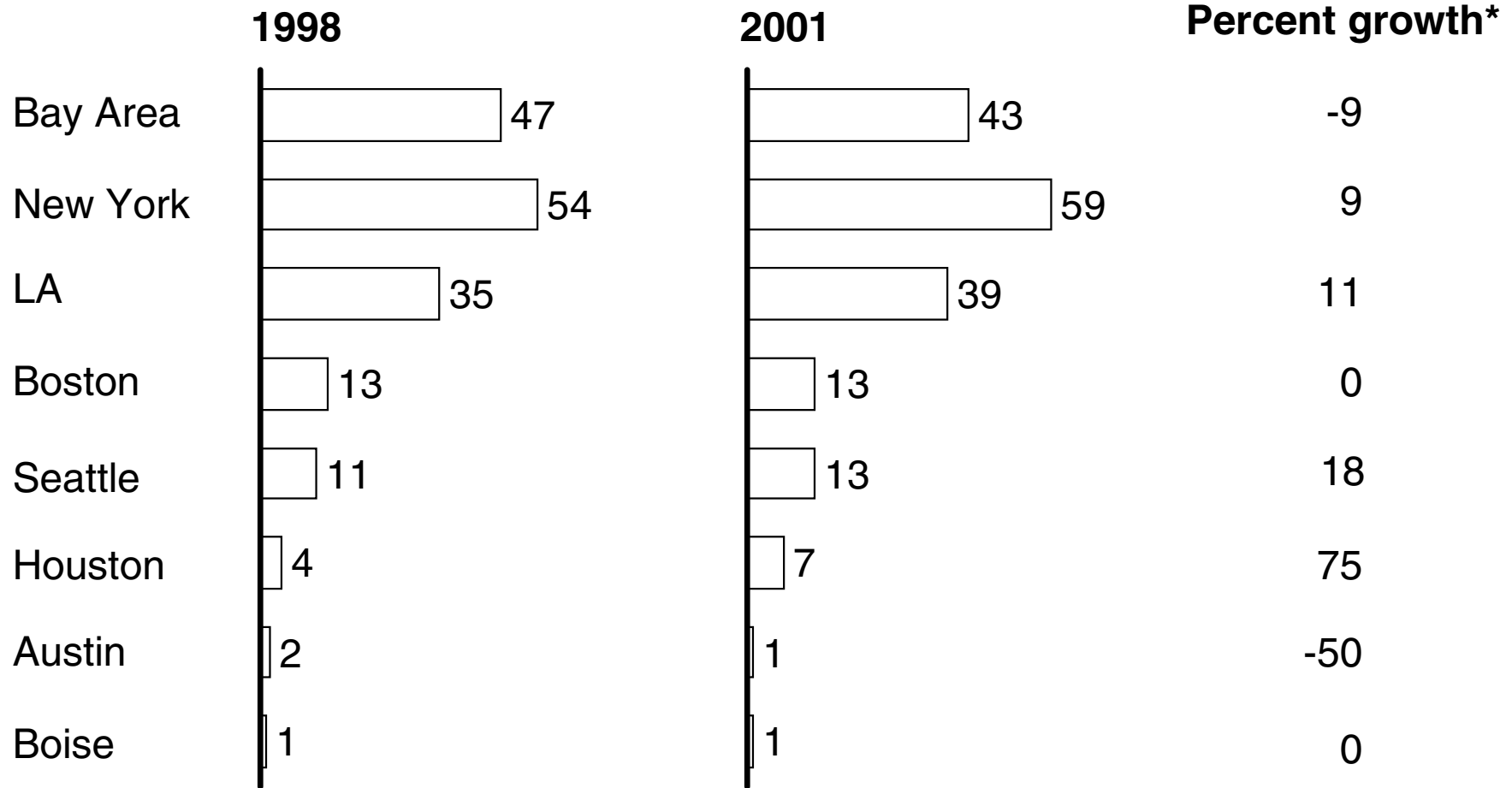
FASTEST GROWING PRIVATE COMPANIES – 2000



WEALTH CONCENTRATION

Forbes 400 wealthiest Americans

Number by comparative region



INCOME DISTRIBUTION IN BAY AREA 1990-2000

Percentage of households

Dollars

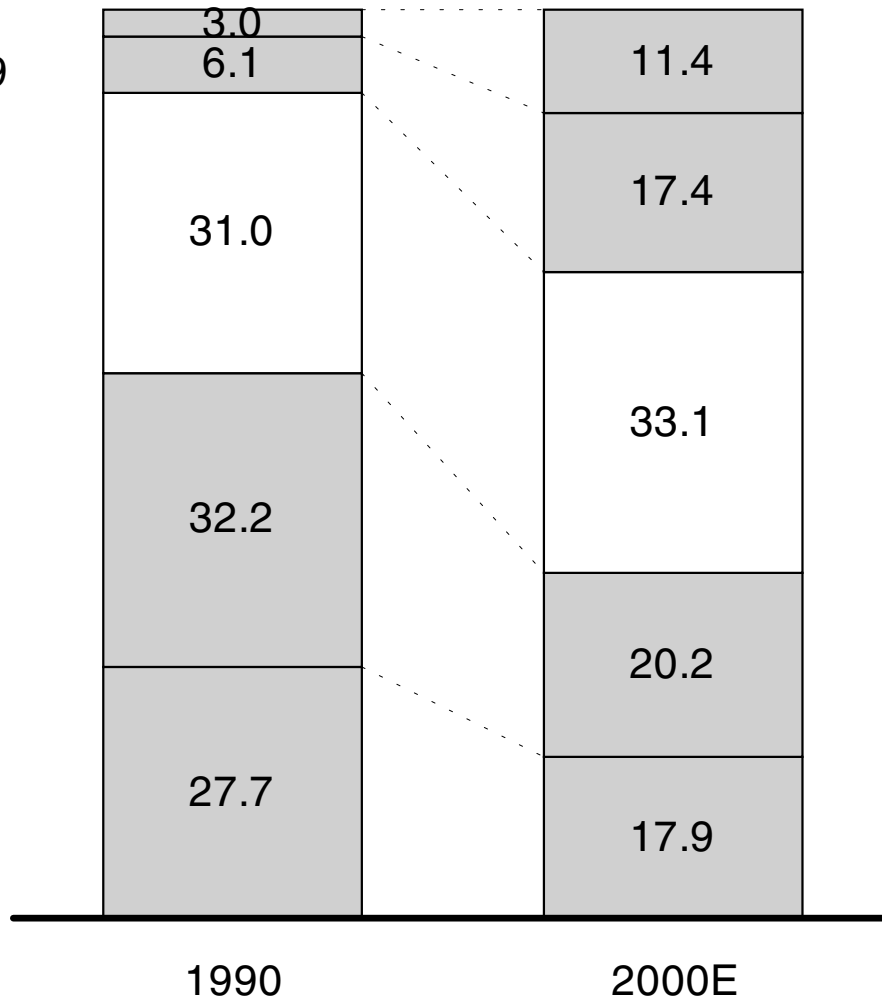
> 150,000

100,000 – 149,999

50,000 – 99,999

25,000 – 49,999

< 25,000



Change in households

Number

Percent

+228,100

+327%

+313,700

+221%

+138,500

+19%

-222,500

-29%

-180,400

-28%

Cost of living index*

1990

128.9

2000E

134.8

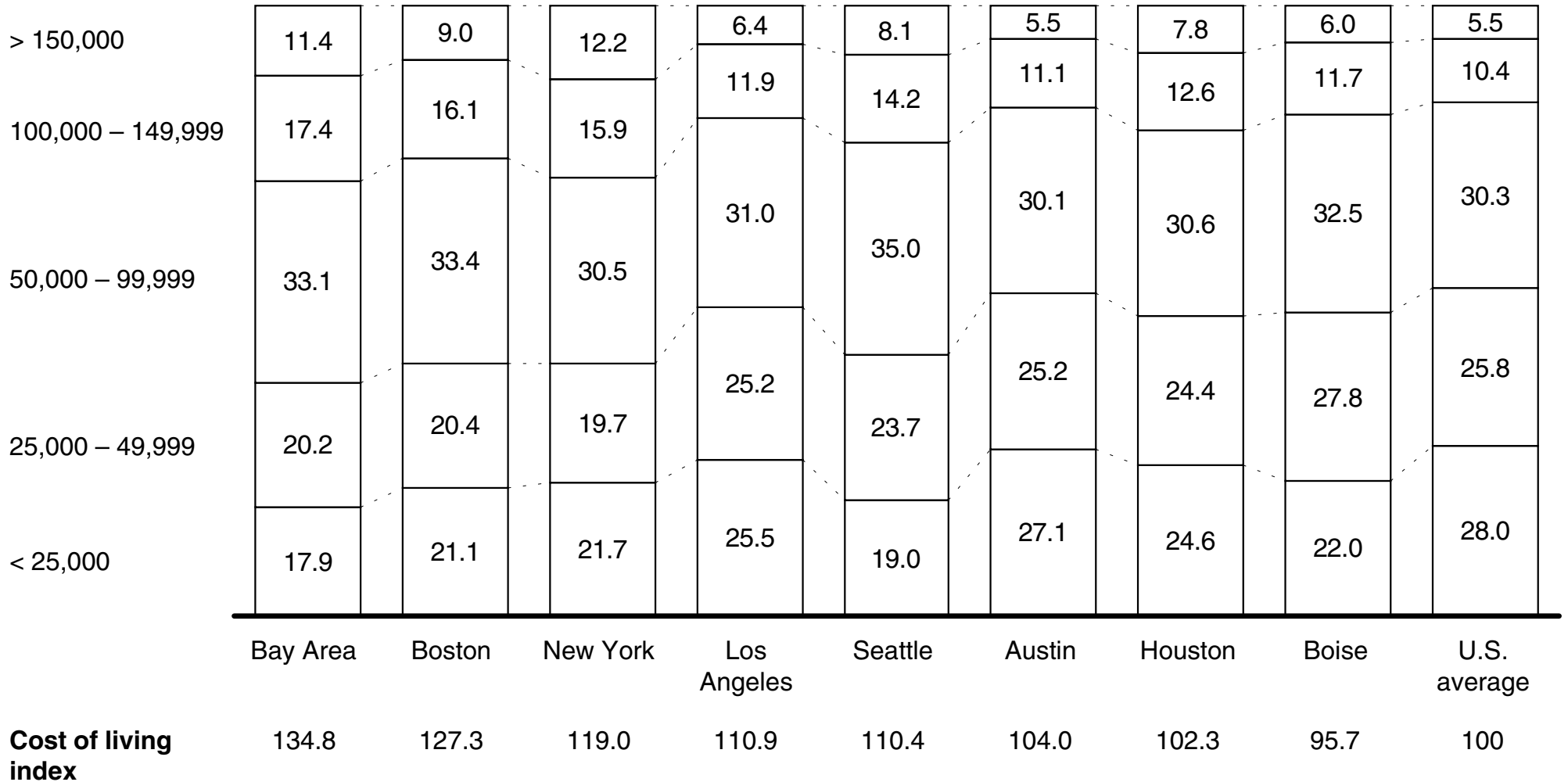
* Relative to U.S. average of 100 in each year

Source: Population Demographics

INCOME DISTRIBUTION IN COMPARATIVE REGIONS – 2000

Percentage of households*

Dollars



* Estimate

Source: Population Demographics

HOUSEHOLD INCOME INEQUALITY FOR BAY AREA COUNTIES

Dollars; percent

	1990		Income Gap Median as percent of mean	2000*		Income Gap Median as percent of mean
	Median	Mean		Median	Mean	
Solano	39,113	44,516	88	55,046	63,785	86
Santa Clara	48,115	58,796	82	80,649	97,787	82
Contra Costa	45,087	55,532	81	69,011	85,604	81
Alameda	37,544	46,809	80	56,677	71,851	79
Sonoma	36,299	44,914	81	53,750	67,765	79
San Mateo	46,437	60,233	77	74,044	96,117	77
Napa	36,773	47,295	78	54,951	72,423	76
Marin	48,544	68,737	71	77,755	109,267	71
San Francisco	33,414	46,659	72	54,298	77,557	70

* Estimate for 2000

Source: Economy.com; McKinsey analysis

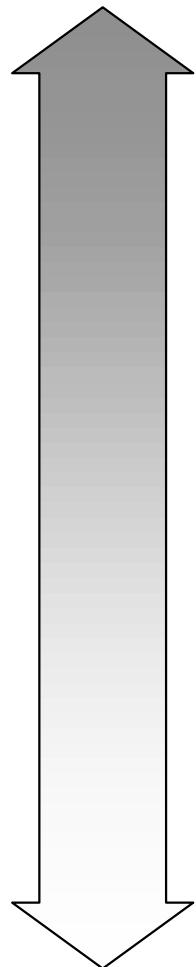
A-2: Productivity

For Web-based appendix

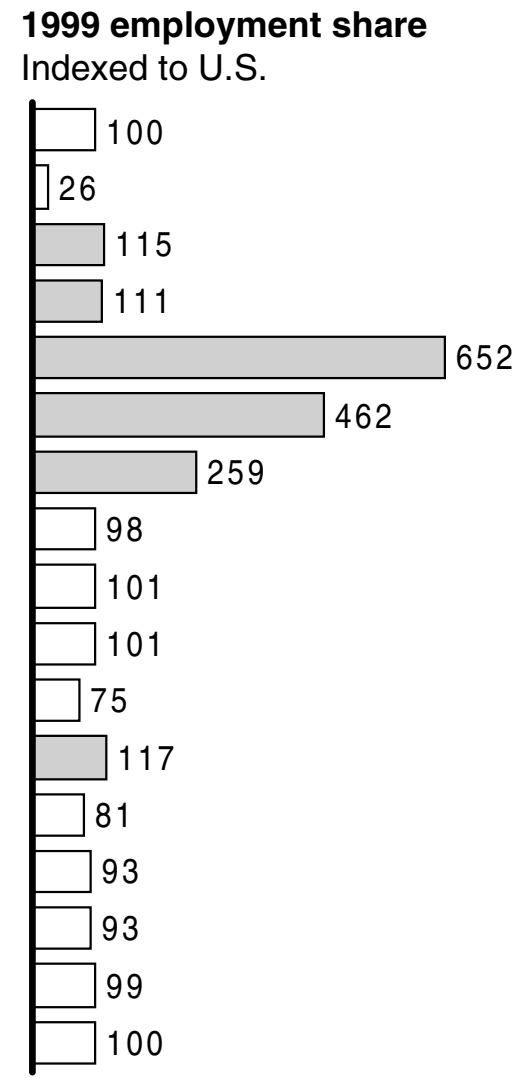
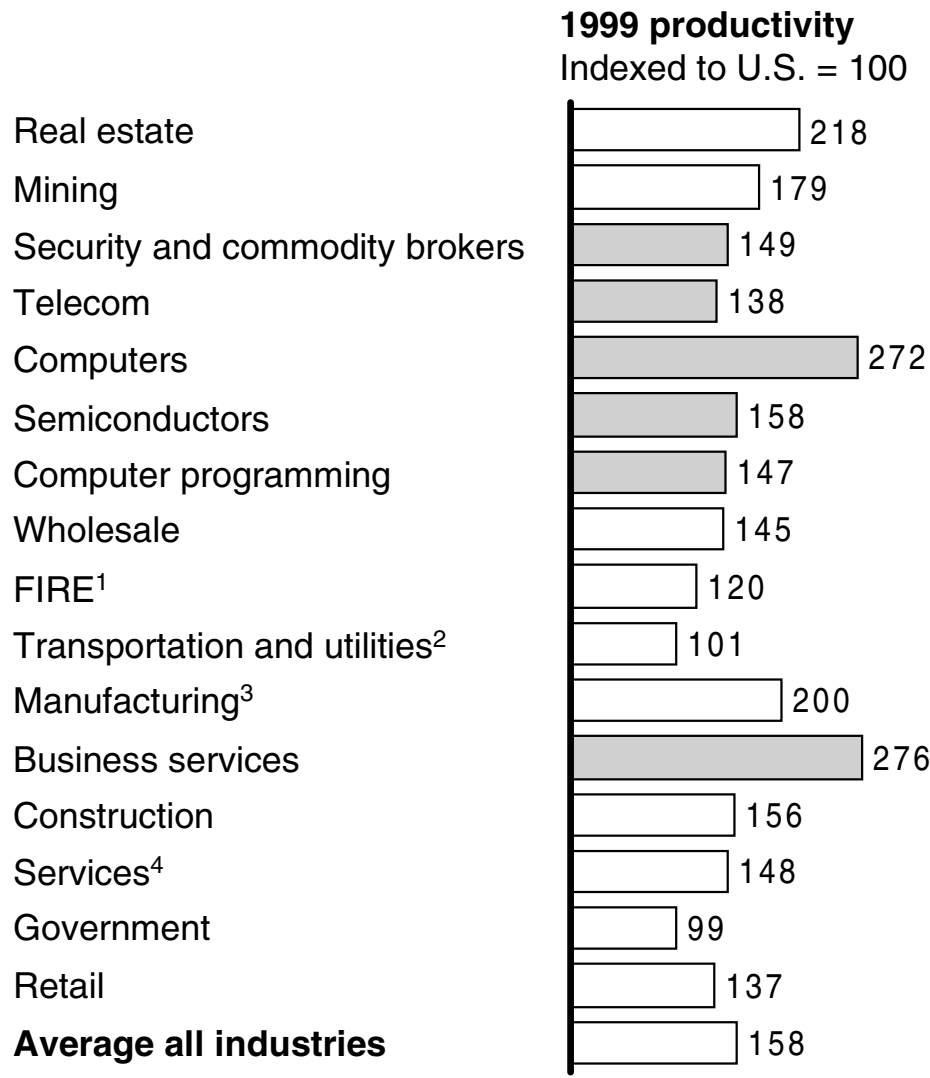
Drivers of advantage

BAY AREA IS MORE PRODUCTIVE THAN U.S. AVERAGE IN MOST INDUSTRIES

Highest productivity



Lowest productivity

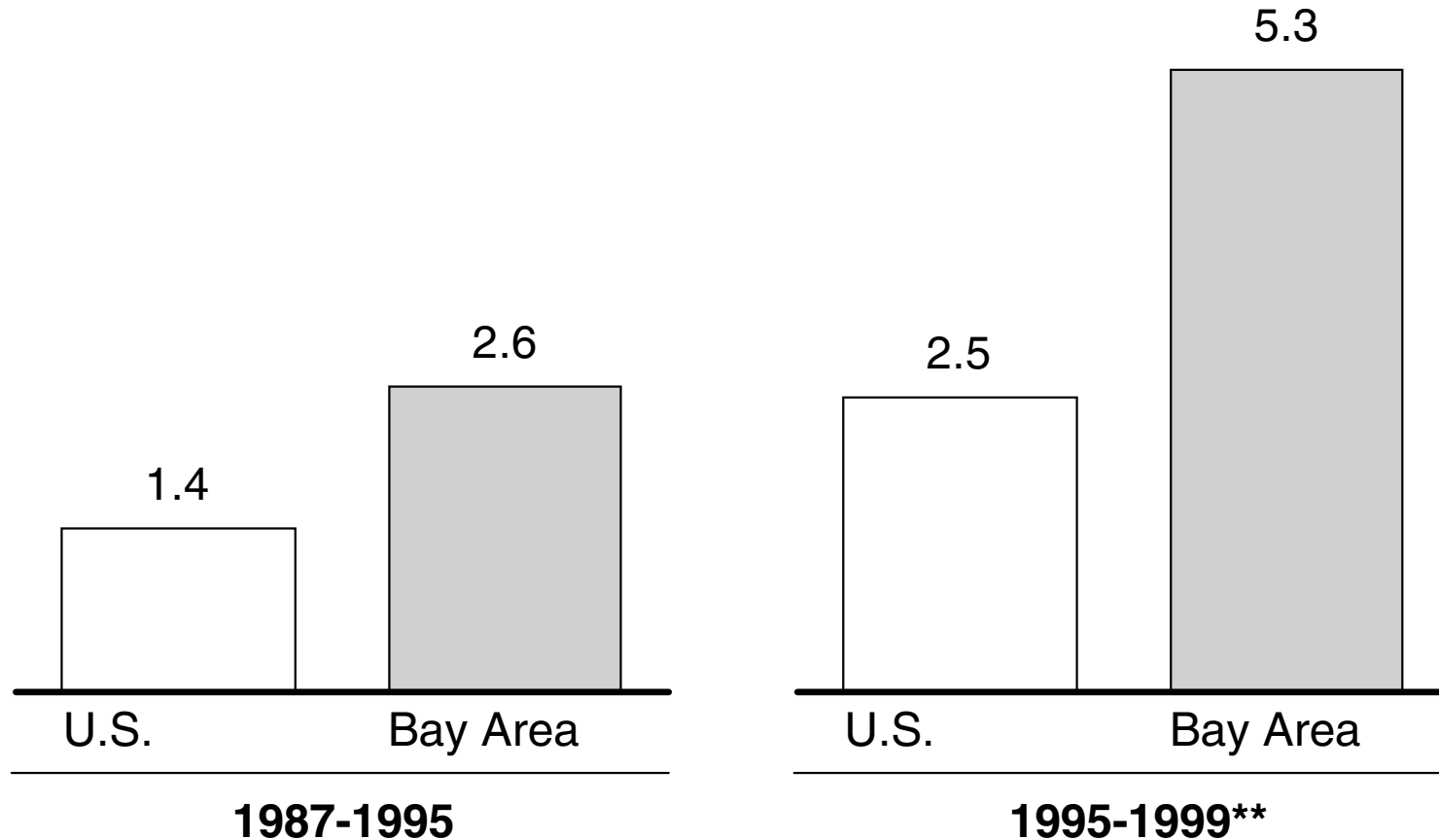


- 1 Does not include real estate and securities and commodity brokers
- 2 Does not include telecom
- 3 Does not include computers or semiconductors
- 4 Does not include business services or computer programming
- 5 Does not include computer programming

BAY AREA PRODUCTIVITY HAS ACCELERATED SIGNIFICANTLY IN LATE 1990s

Average annual growth rate in labor productivity*

Percent



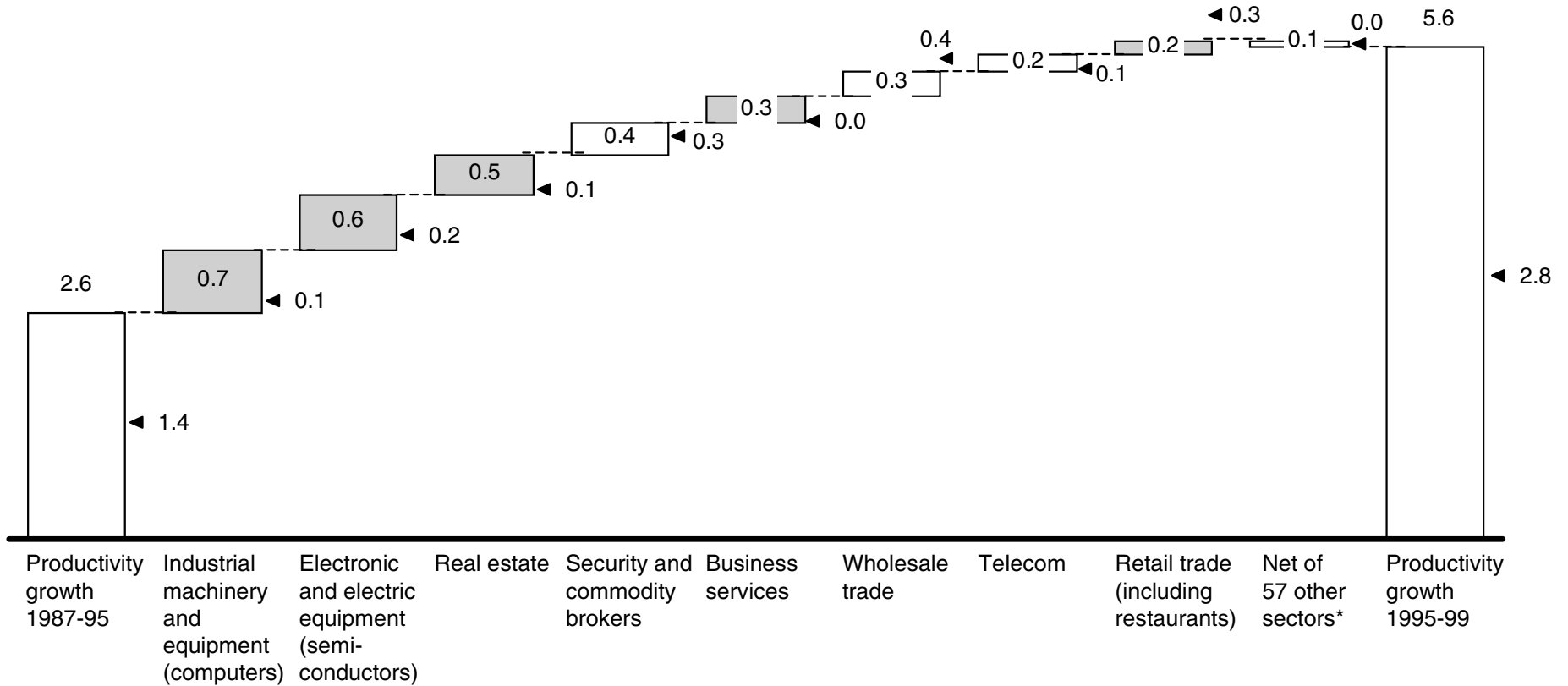
* Labor productivity over time measured using real output deflated to 1996 dollars divided by Persons Employed in Production (PEP). Regional output data estimates provided by Economy.com (see Appendix for methodology)

** Analysis has been done up to 1999, since data for 2000 exists as estimates only. Actual data for 2000 will not be available until Spring 2002

ACCELERATION OF PRODUCTIVITY GROWTH DRIVEN BY HIGH TECH SECTORS

◀ U.S. average
 ■ Area of focus

Percent



	Industrial machinery and equipment (computers)	Electronic and electric equipment (semi-conductors)	Real estate	Security and commodity brokers	Business services	Wholesale trade	Telecom	Retail trade (including restaurants)	Net of 57 other sectors*	Productivity growth 1995-99
Percent of 1999 Bay Area GDP	7.0	8.3	14.9	2.5	9.4	7.1	2.3	8.0	40.6	100.0
Percent of 1999 Bay Area employment share	2.7	3.4	1.3	0.7	10.5	5.2	0.9	15.7	59.6	100.0
Percent of 1999 U.S. GDP	2.4	3.1	10.8	2.3	5.1	7.8	2.4	9.4	56.8	100.0
Percent of 1999 U.S. employment share	1.6	1.3	1.3	0.6	7.2	5.3	0.8	15.8	66.1	100.0

* Net of small positive and negative contributions in these sectors

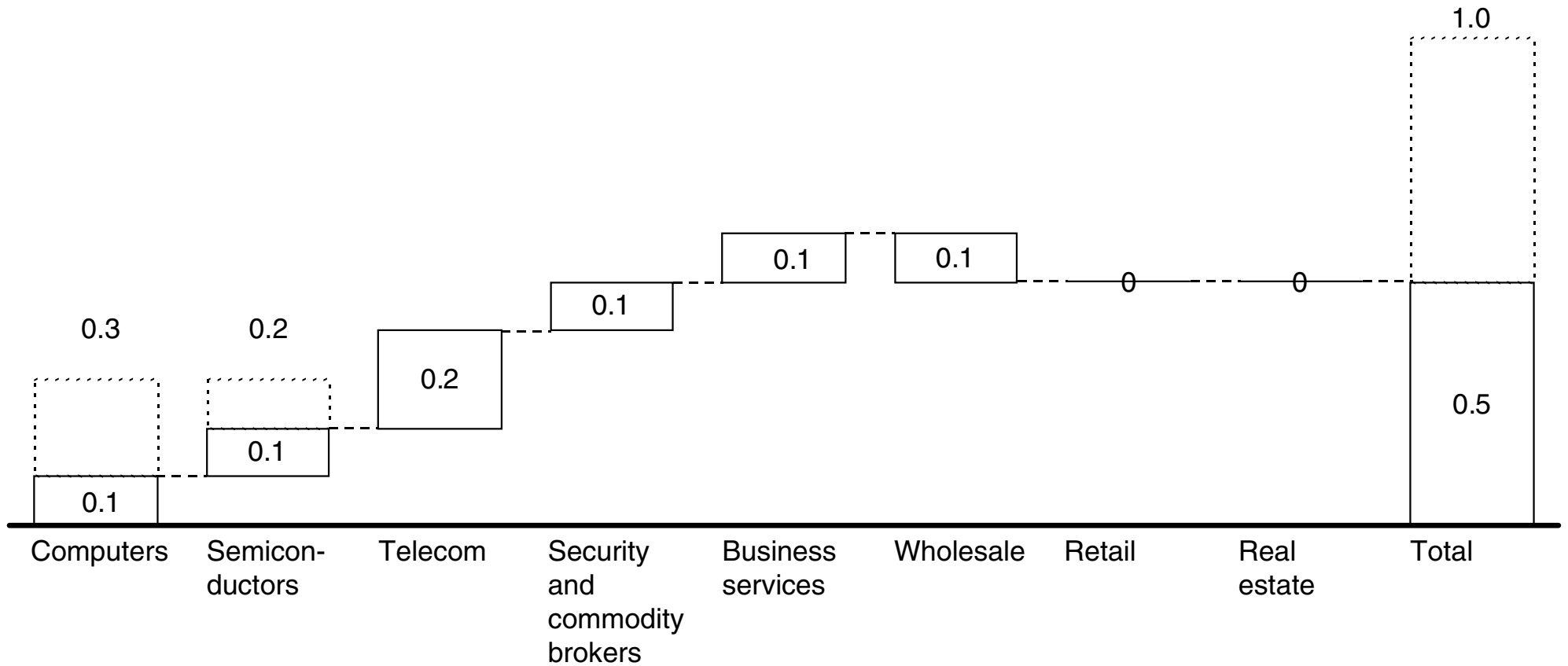
Note: All employment figures are payroll employment only; proprietors employment figures are not reported by the BLS

Source: BEA; Economy.com; McKinsey Global Institute; McKinsey analysis

Exhibit 3

SOURCES OF SUSTAINABLE PRODUCTIVITY ACCELERATION WITHIN THE 8 LEADING SECTORS

CAGR, contribution
Percent



Note: Details on pages 4 and 5
Source: McKinsey analysis

SUMMARY OF SUSTAINABILITY OF PRODUCTIVITY GROWTH ACCELERATION WITHIN THE 8 LEADING SECTORS

Percent

Sector	Contribution to productivity acceleration, 1987-1995, 1995-1999	Contribution to productivity acceleration adjusted for price bubble	Price-adjusted contribution through sector mix effect	Portion sustainable 2001-2005	Estimated contribution to productivity acceleration 2001-2005	Comments
Industrial machinery and equipment (computers)	0.71	0.71	0.1	20-40	0.1-0.3	<ul style="list-style-type: none"> Based on an expectation for continuation of the 1995-98 growth trend in the computer value-added deflator (driven by integration of computer hardware and reduction in the number of components), and a projected slump in demand for unit growth down from 17% (1995-98) to 3% (2001-05), we expect a minimum of 25-50% of the within-sector contribution by computer manufacturing is sustainable 25% of the total contribution by computer manufacturing is on account of shifts in employment; and deemed unsustainable Computer manufacturing is responsible for 20% of the total productivity acceleration witnessed in the Bay Area economy, and for 86% of total contribution to acceleration by industrial machinery and equipment manufacturing
Electronics and technical equipment (semiconductors)	0.62	0.62	0.1	20-40	0.1-0.2	<ul style="list-style-type: none"> 50% of net contribution to productivity acceleration is due to semiconductor manufacturing (0.32), and the other 50% due to communications equipment (0.3). All other subsectors contribute very small positives and negatives Of the semiconductor manufacturing piece, 15% is estimated to be due to shifts in employment; of the remaining 85% (0.27 contribution), we estimate 50% is sustainable, attributed to technological progress in manufacturing. The remaining is attributed to shortening of product life cycle, and increase in unit demand, and therefore deemed unsustainable In the communications equipment sector, all of the contribution is within-sector, with employment mix accounting for 0 contribution. Given the expectation of a slowdown in demand for equipment due to a large build up of investments over the last few years, we estimate the upper bound of sustainability to be 50% Semiconductor manufacturing contributed 11% of the overall productivity acceleration within the Bay Area, similar to the 15% contribution at the national level. Between 1995-99 its productivity grew at 23% CAGR vs. 14% nationally
Telecom	0.20	0.20	-0.03	80-100	0.2	<ul style="list-style-type: none"> Contribution of local services to aggregate productivity is deemed sustainable due to an acceleration in demand in local voice services, data services, and other new technologies (e.g., DSL) coupled with a stagnation or reduction employment base Contribution of mobile services will also be sustained due to growth in voice usage (due to increased penetration and lower rates), and wider usage (e.g., data) Contribution of long distance to aggregate productivity is also expected to be sustained due to high levels of investment in capacity and sales/marketing driven by higher levels of investment in capacity and sales/marketing, and the scalability of additional data volume
Security and commodity brokers	0.36	0.36	0.08	20-40	0.1	<ul style="list-style-type: none"> Sector is responsible for 12% of total acceleration to aggregate productivity – similar to that at the national level (10%), of which 25% is attributable to employment shift, and the remaining to within-sector productivity Half of the total contribution by securities brokers and dealers is attributed to trading process automation, and to an increase in trading volume due to reduction in trading costs driven by technology, competition and deregulation. We expect this portion to be sustainable. The other half – due to the exuberance of a bull market – is not sustainable


SUMMARY OF SUSTAINABILITY OF PRODUCTIVITY GROWTH ACCELERATION WITHIN THE 8 LEADING SECTORS (CONTINUED)

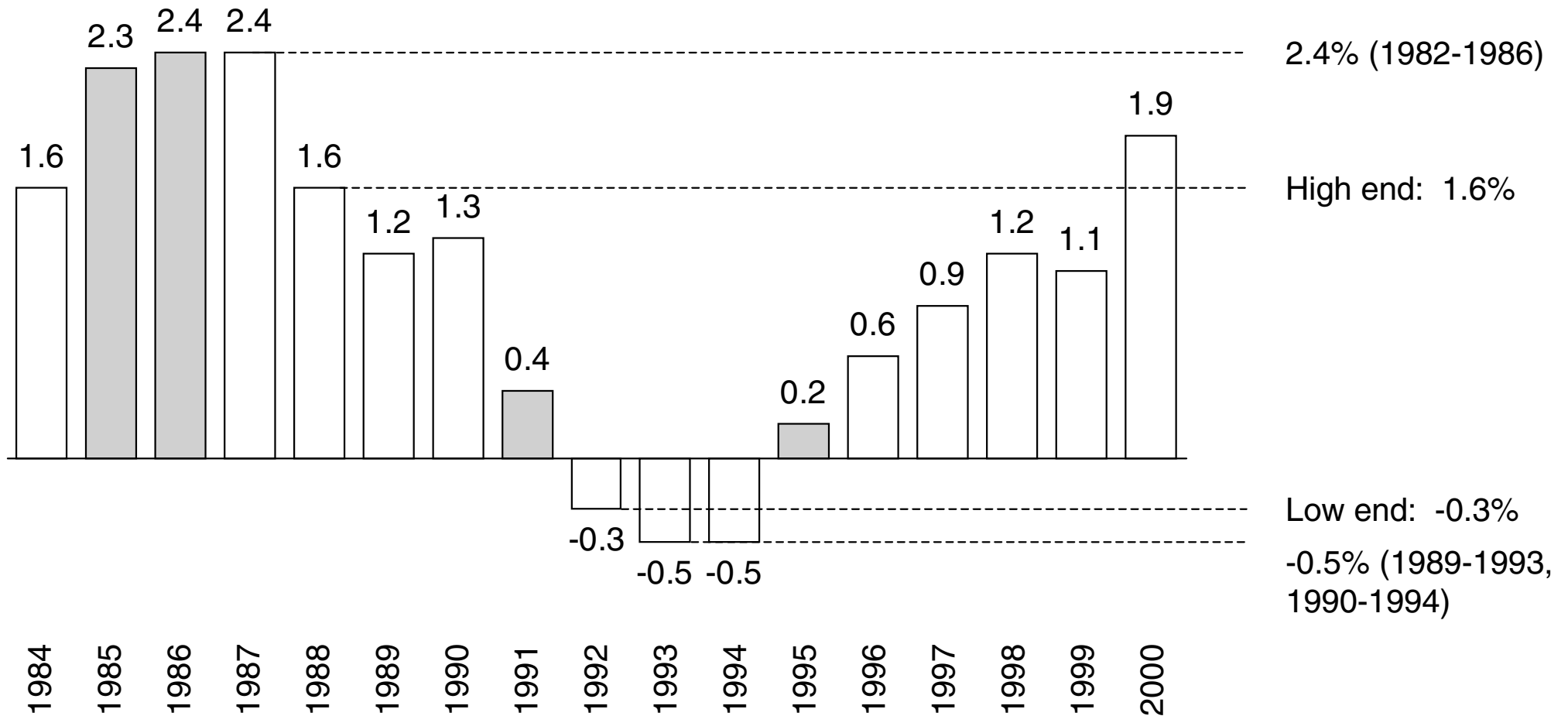
Percent

Sector	Contribution to productivity acceleration, 1987-1995, 1995-1999	Contribution to productivity acceleration adjusted for price bubble	Price-adjusted contribution through sector mix effect	Portion sustainable 2001-2005	Estimated contribution to productivity acceleration 2001-2005	Comments
Business services	0.30	0.18	0.04	20-40	0.0-0.1	<ul style="list-style-type: none"> 40% of the total contribution to acceleration can be attributed to a bubble in prices Computer programming accounts for 100% of the positive contribution to productivity acceleration provided by business services. 60% of that is due to shifts in employment and is unsustainable 60%-80% of the within-sector contribution, after adjusting for price bubble effect, is deemed sustainable
Wholesale	0.28	0.28	0.0	10-30	0.0-0.1	<ul style="list-style-type: none"> The wholesale sector was responsible for only 10% of the overall contribution to the Bay Area (compared with 30% nationally) We estimate a minimum range of 10-30% as sustainable due to warehouse automation, increase in prices, (e.g., drugs), consolidation of retailers, and OFT improvements. 15% of the total contribution to acceleration is deemed sustainable on account of warehouse automation alone
Retail	0.15	0.10	0.03	0-20	0.0	<ul style="list-style-type: none"> The retail sector was responsible for a much smaller portion of productivity acceleration in the Bay Area, than at the national level. This is in part because the retail sector was already 37% more productive in the the Bay Area in 1995 than nationally, and contributed 0.2% CAGR to productivity acceleration vs. (0.22%) nationally in the period 1987-95 Home furnishings and automotive contribute 70% of retail contribution to the acceleration, all from within-sector productivity growth. Unlike at the national level, GMS is responsible for an 8% deceleration to the overall contribution from retail Increase in the sale of home furnishings (primarily driven by computer equipment and peripherals) and automobiles was primarily driven by an increase in the number of units sold, coupled with an increase in the value of those units. No fundamental change in the consumption pattern was made, and we estimate only 50% of this is sustainable going forward
Real estate	0.45	-0.06	-0.15	–	0.0	<ul style="list-style-type: none"> When adjusted for price bubble impact, real estate has a very small negative contribution to total productivity acceleration
Total					0.5-1.0	

PRODUCTIVITY GROWTH IN THE REST OF THE BAY AREA ECONOMY

4-year CAGR, percent

 Periods including either a recession year or the first year of the following expansion, but not both



POTENTIAL SCENARIOS FOR 2001-05 PRODUCTIVITY GROWTH

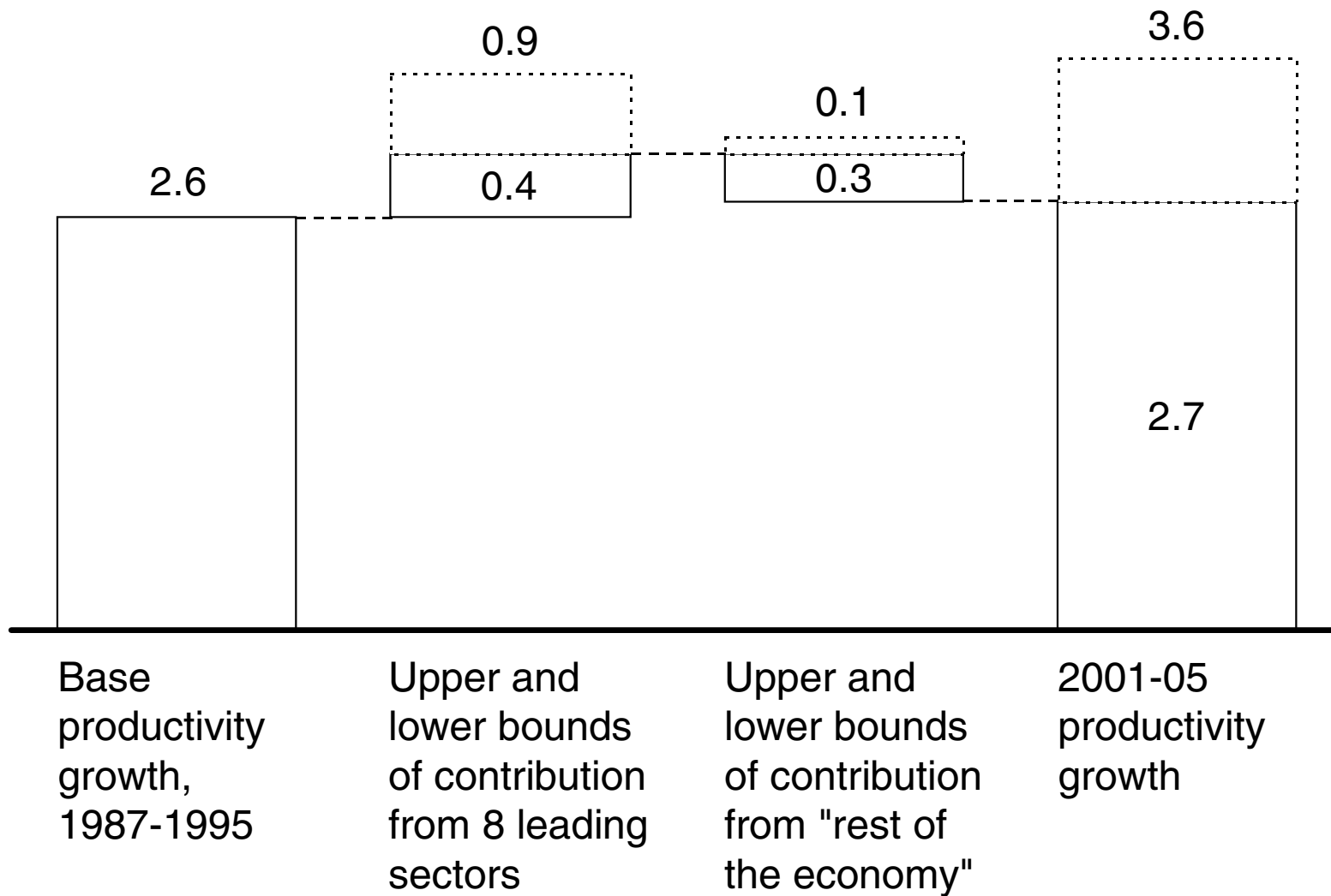
CAGR
Percent

Sectors driving productivity acceleration

	Low-bound for productivity performance in the 8 leading sectors	High-bound for productivity performance in the 8 leading sectors
Low bound for productivity performance in the rest of the economy	2.7	3.2
High bound for productivity performance in the rest of economy	3.1	3.6

COMPONENTS OF FUTURE PRODUCTIVITY GROWTH

CAGR
Percent



A-3: Quality of Life Data

For Web-based appendix

THE BAY AREA RANKS 10TH OF 352 LOCATIONS FOR ITS OUTSTANDING CLIMATE

		National rank out of 352 locations	Change from 1997 rank
Los Angeles	99	4	↓2
Bay Area	97	10	--
Boise	85	51	↑120
Houston	80	68	↓4
Seattle	78	78	↓63
Austin	72	99	↓31
New York	70	103	↑51
Boston	59	143	↑38

Note: 4 factors are used to determine a score for climate in 2000: 1) winter mildness 2) summer mildness 3)

hazardousness 4) seasonal effect. 1997 scores are computed on 3 factors: 1) mildness 2) brightness 3) stability

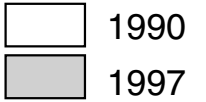
Source: *Places Rated Almanac*, 2000, 1997

THE BAY AREA RANKS 12TH OF 352 LOCATIONS IN ARTS AND CULTURE

		National rank out of 352 locations	Change from 1997 rank
New York	100	1	--
Los Angeles	99	3	--
Boston	99	6	--
Bay Area	96	12	↑2
Seattle	92	28	↓13
Houston	90	35	↓11
Boise	76	85	↑133
Austin	72	97	↑1

Note: 8 data elements were used to determine a score for the arts. These are grouped into 2 broad factors, possessions (number of art museums, etc.) and performances (annual ballet performances, etc.). 1997 scores were computed based on 14 data elements grouped broadly into 1) business 2) reading popularity 3) museum popularity

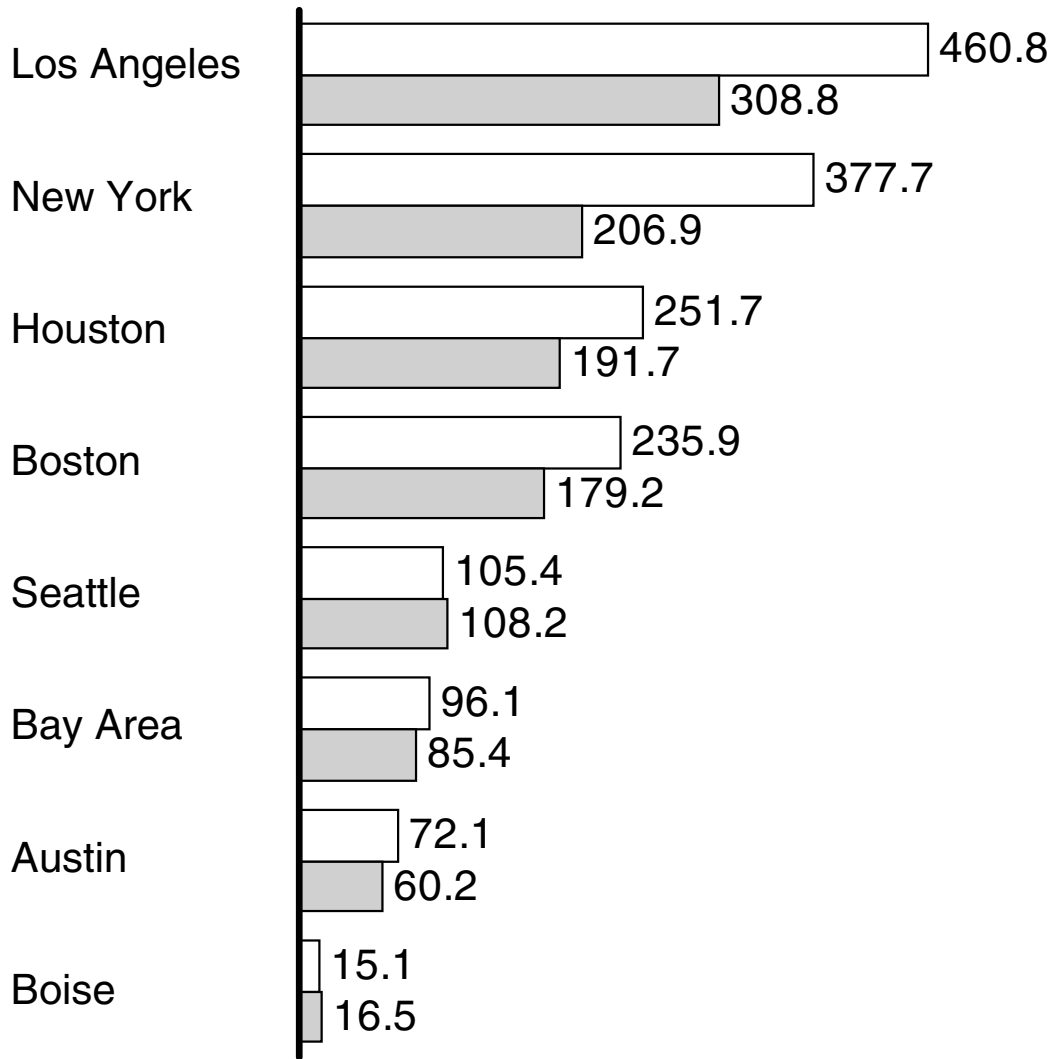
Source: *Places Rated Almanac*, 2000, 1997



CRIME RATE

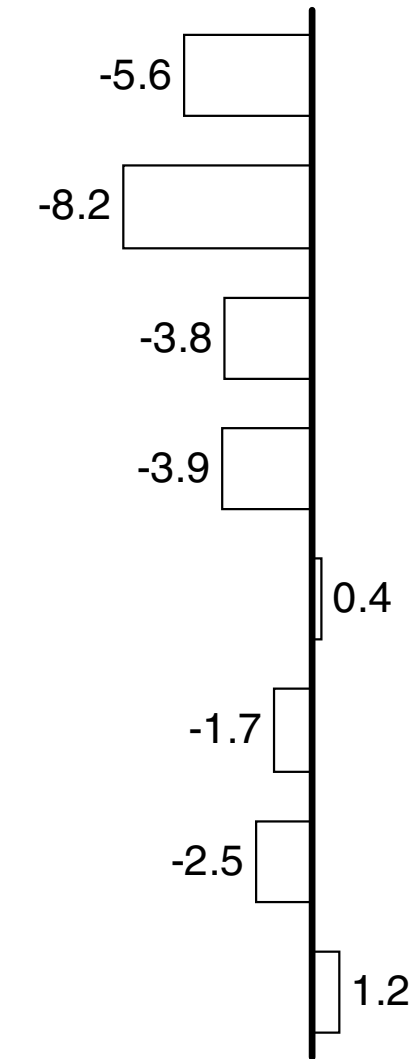
Crime rate index (number of crimes)

Thousands



CAGR (1990-97)

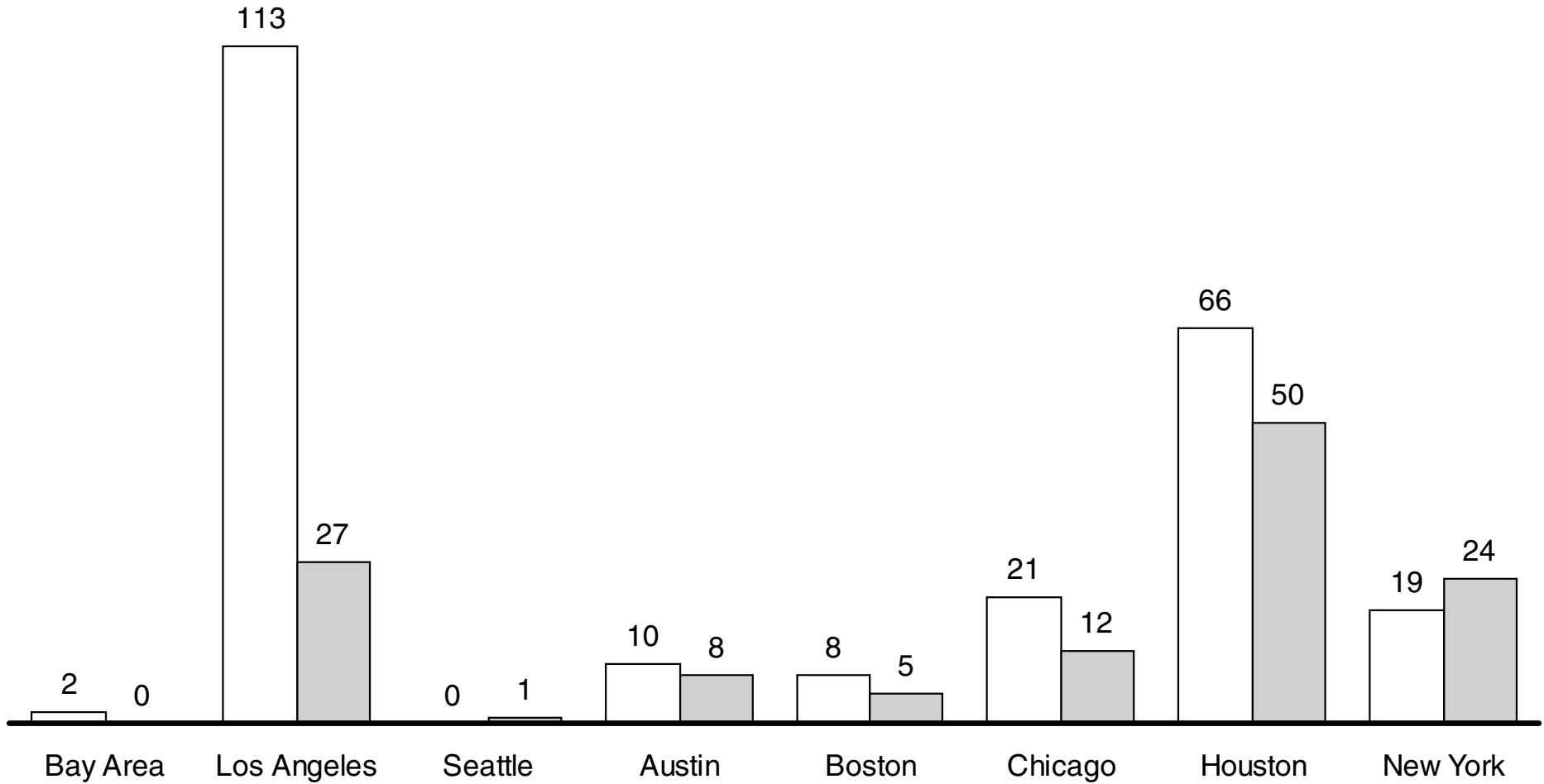
Percent



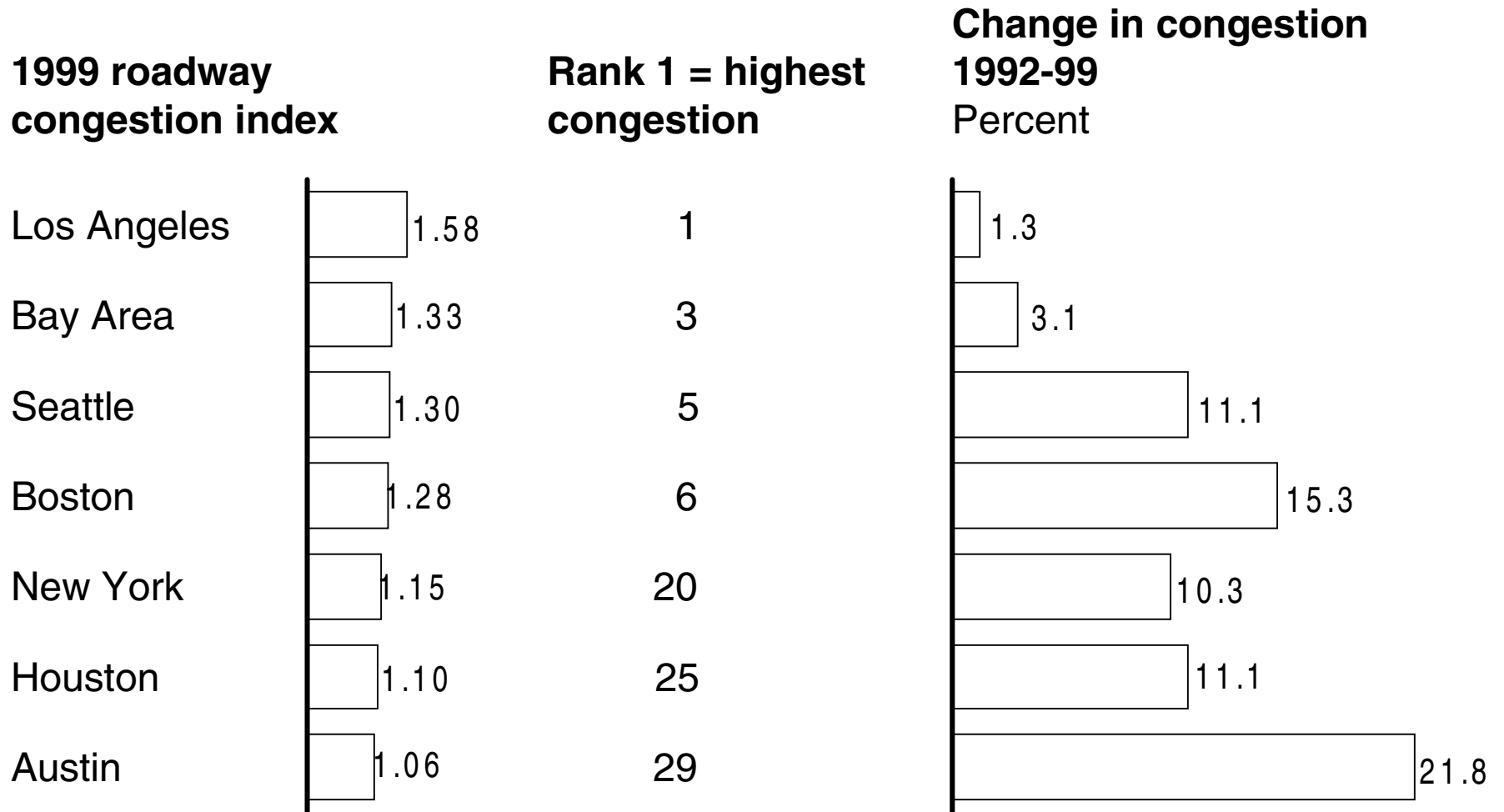
1995
1999

HEALTH CONCERNS: AIR QUALITY

Number of unhealthy days per year



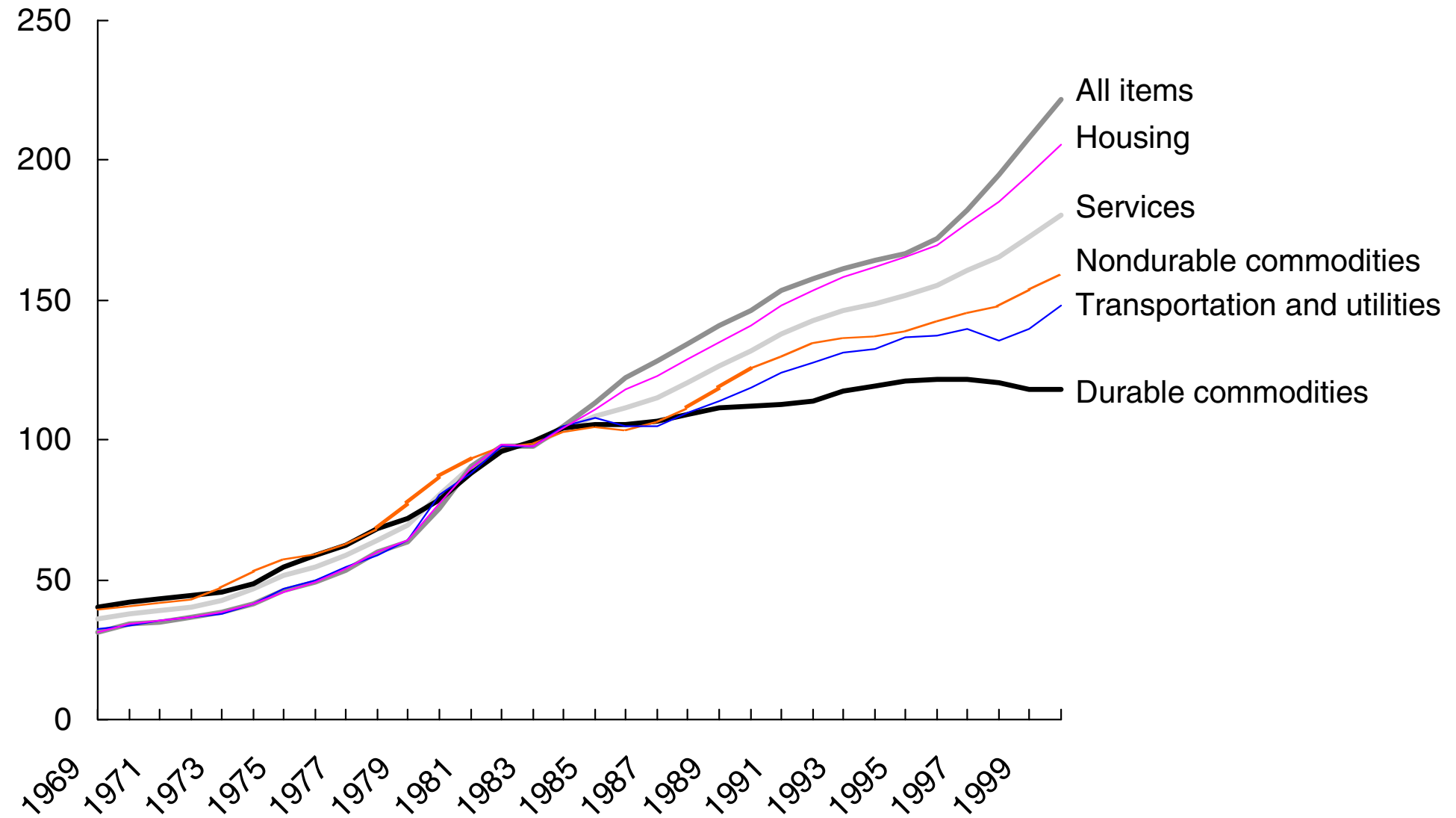
THE BAY AREA'S TRAFFIC CONGESTION HAS WORSENERED, AND IS SECOND ONLY TO LOS ANGELES AMONG COMPARISON REGIONS



* Roadway congestion index compares growth of traffic to new roadways. Traffic congestion is a weighted measure of daily vehicle miles of travel per lane mile

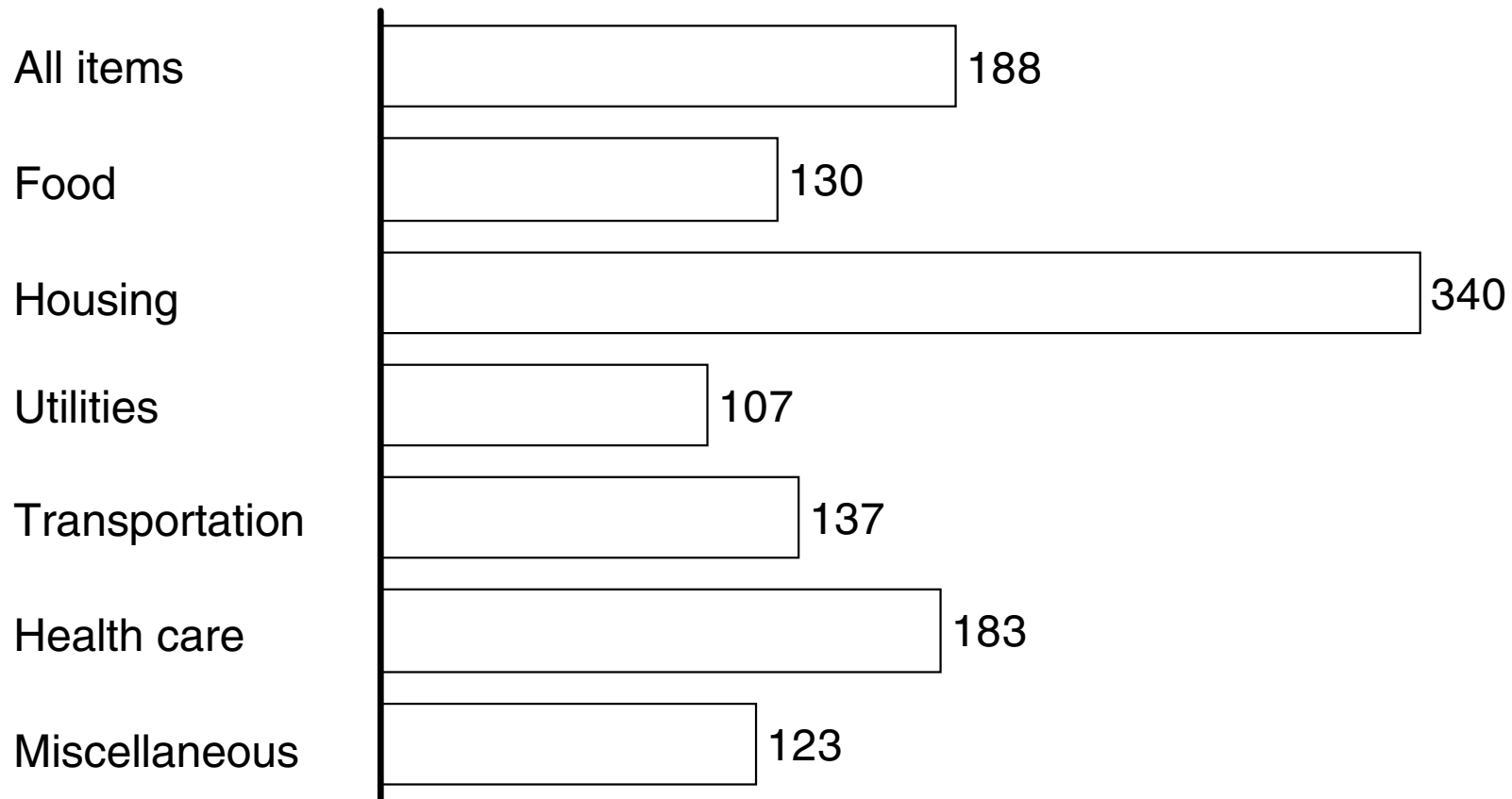
BAY AREA CONSUMER PRICES

Indexed, 1982-84 = 100

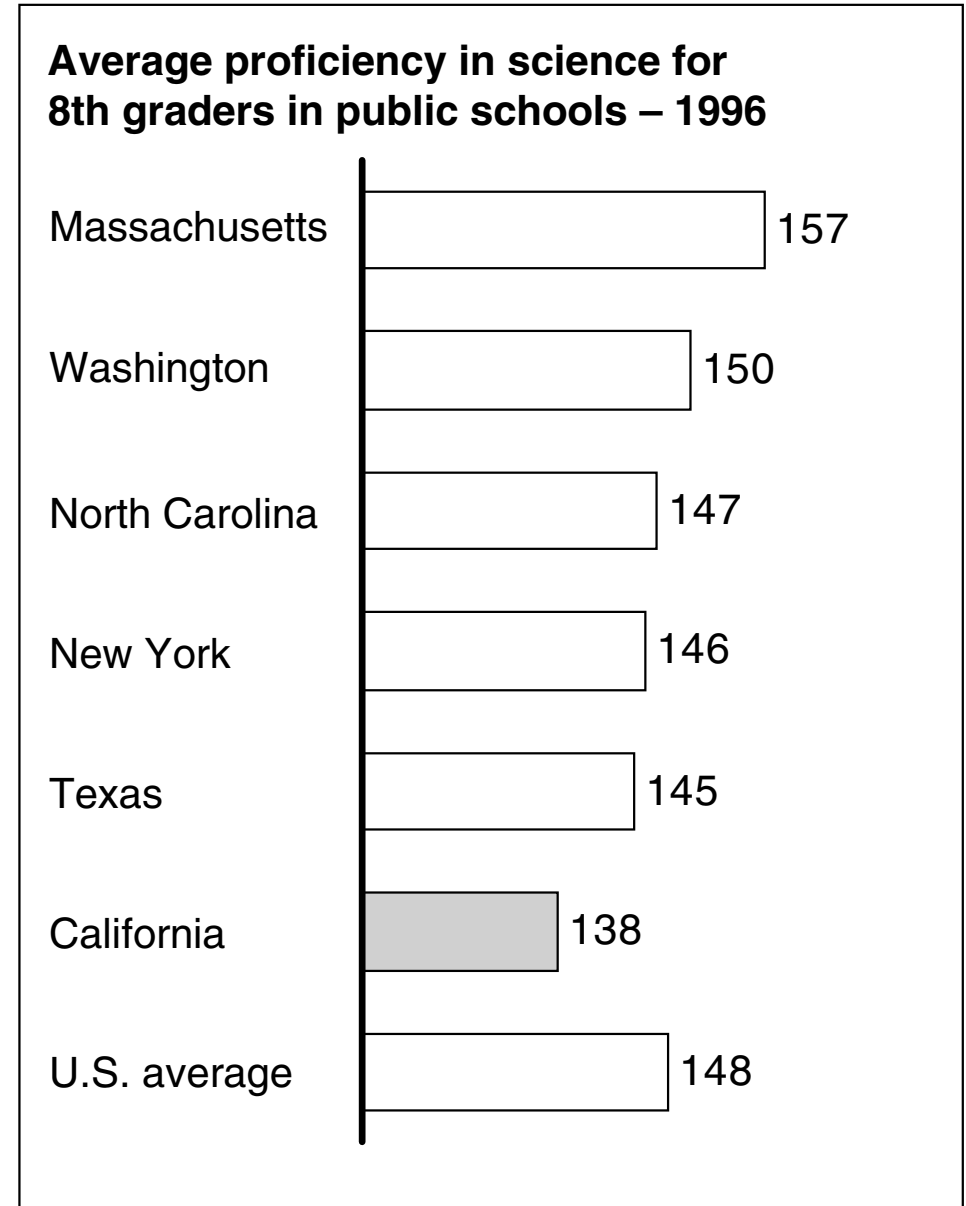
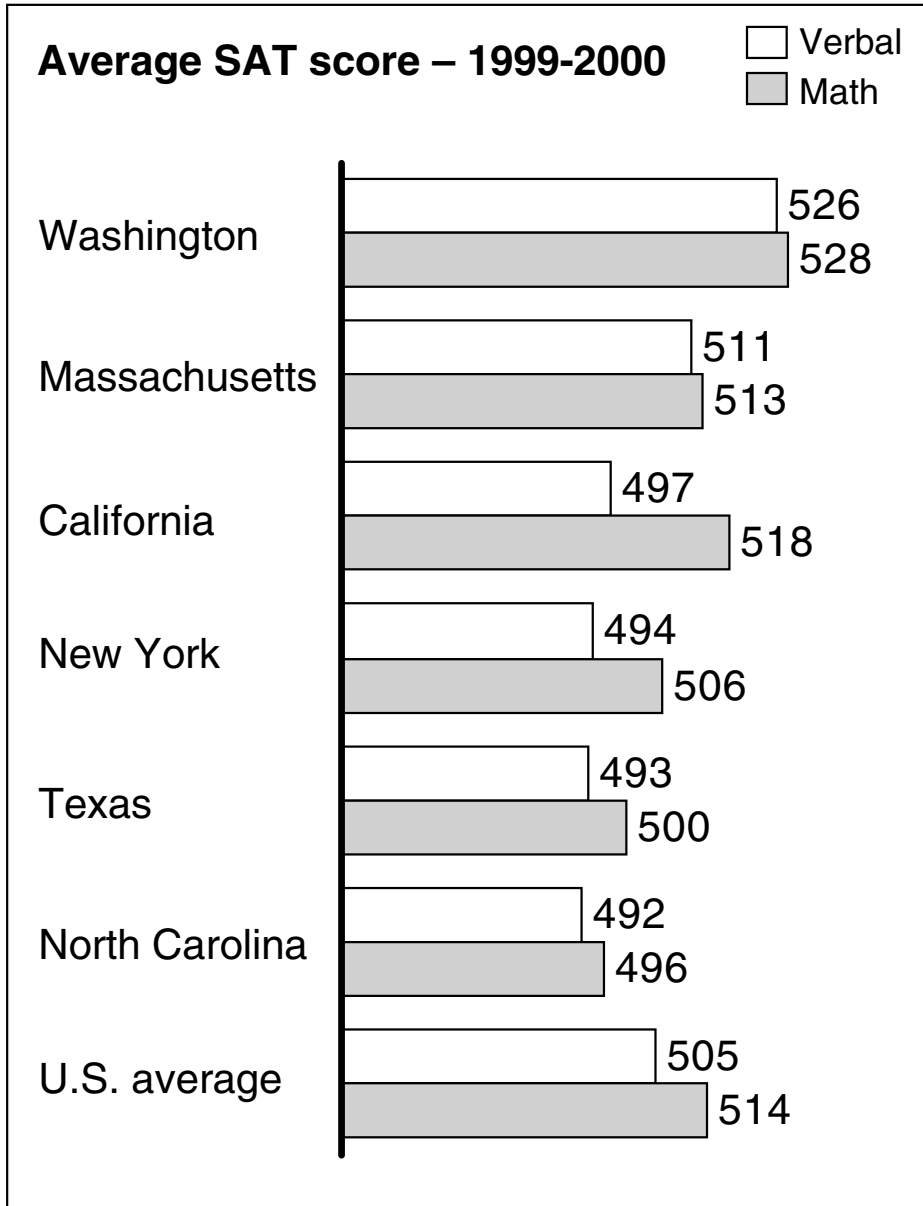


BAY AREA PURCHASING POWER PARITY

1998; Indexed to U.S. average = 100

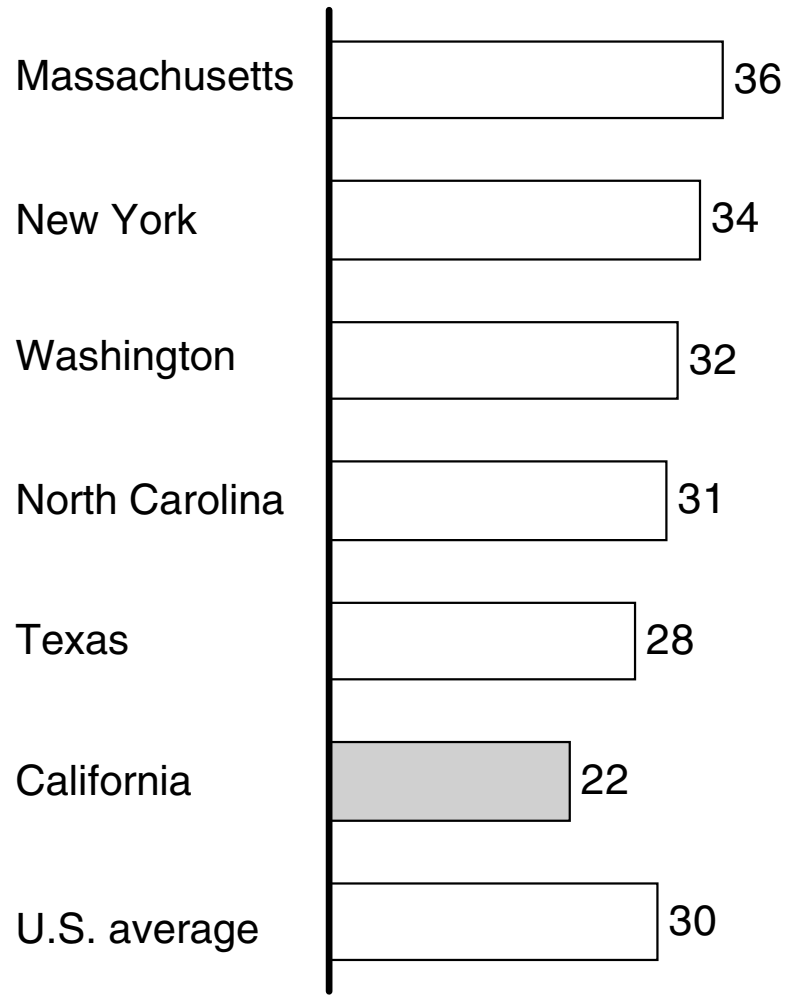


CALIFORNIA LAGS COMPARATIVE REGIONS IN EDUCATION PROFICIENCY

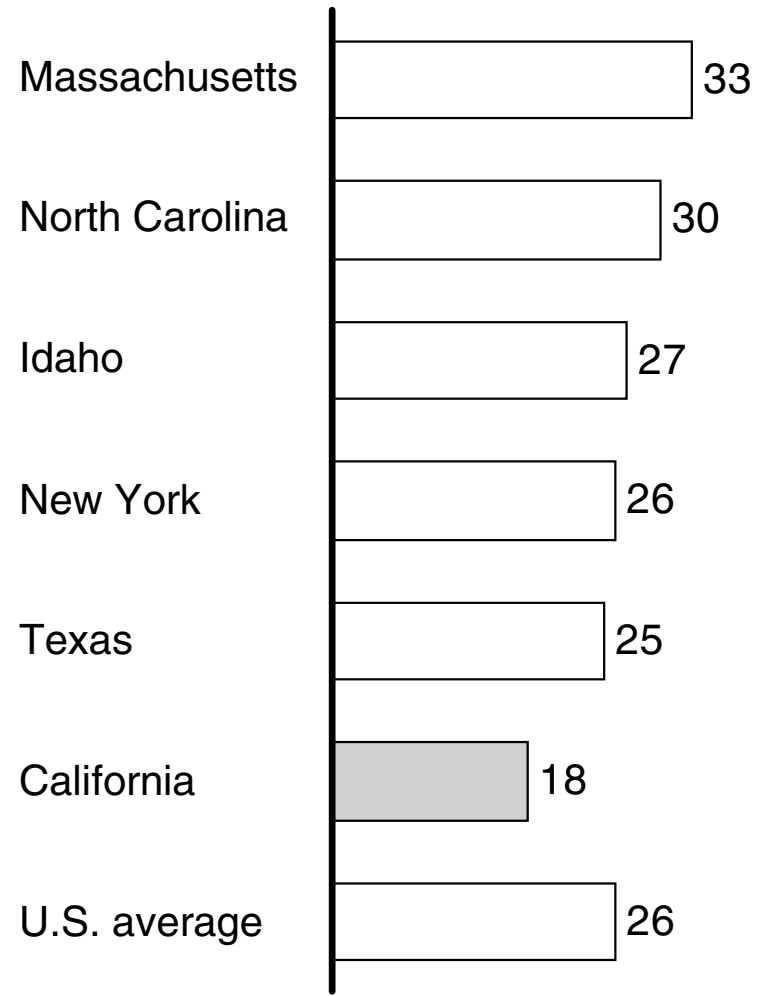


CALIFORNIA LAGS COMPARATIVE REGIONS IN EDUCATION PROFICIENCY

Percent of 8th grade students reading at or above the proficient level for public schools – 1998



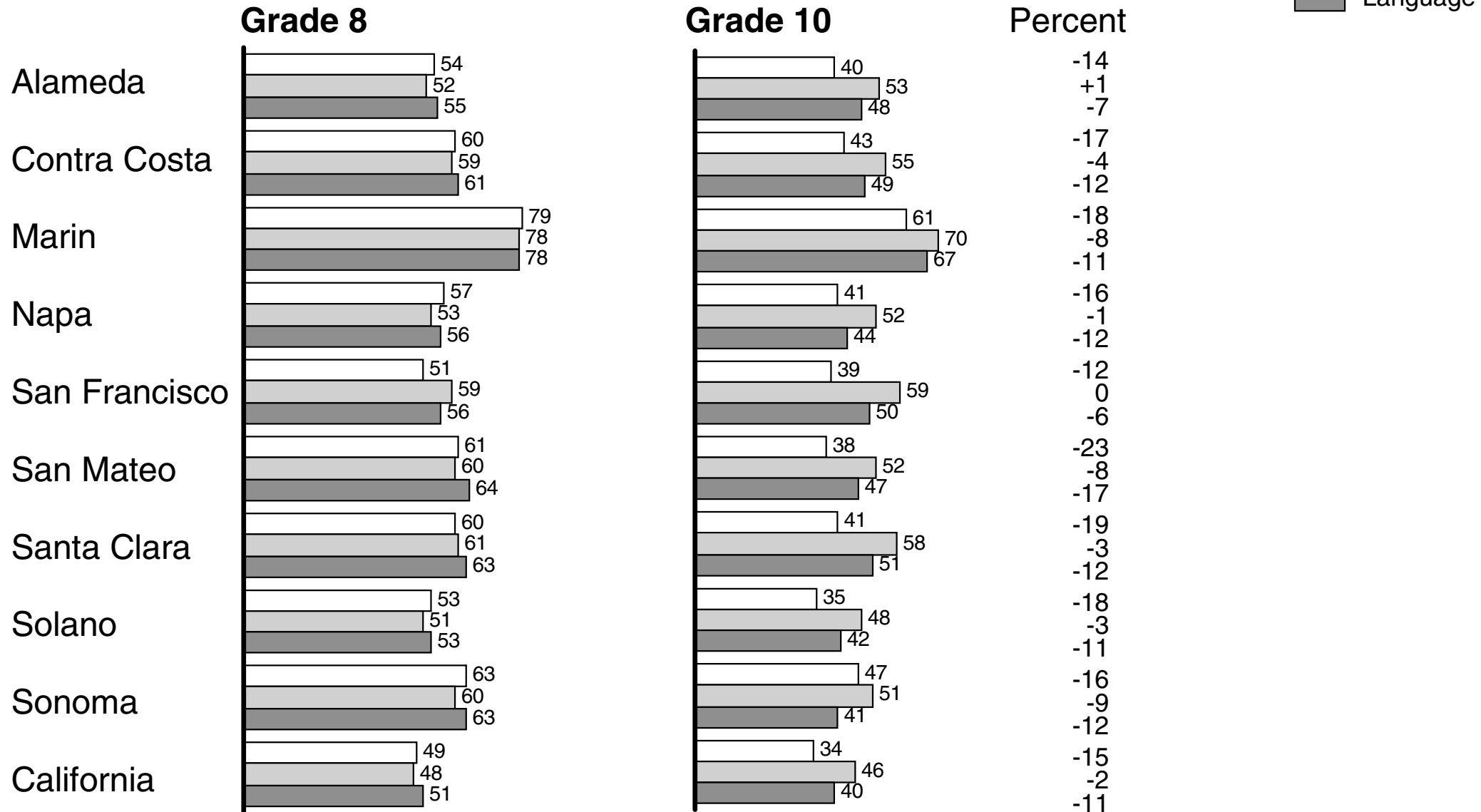
Percent of 8th grade students with math performance at or above proficient level for public schools – 2000



BAY AREA LEADS CALIFORNIA IN K-12 EDUCATIONAL PERFORMANCE

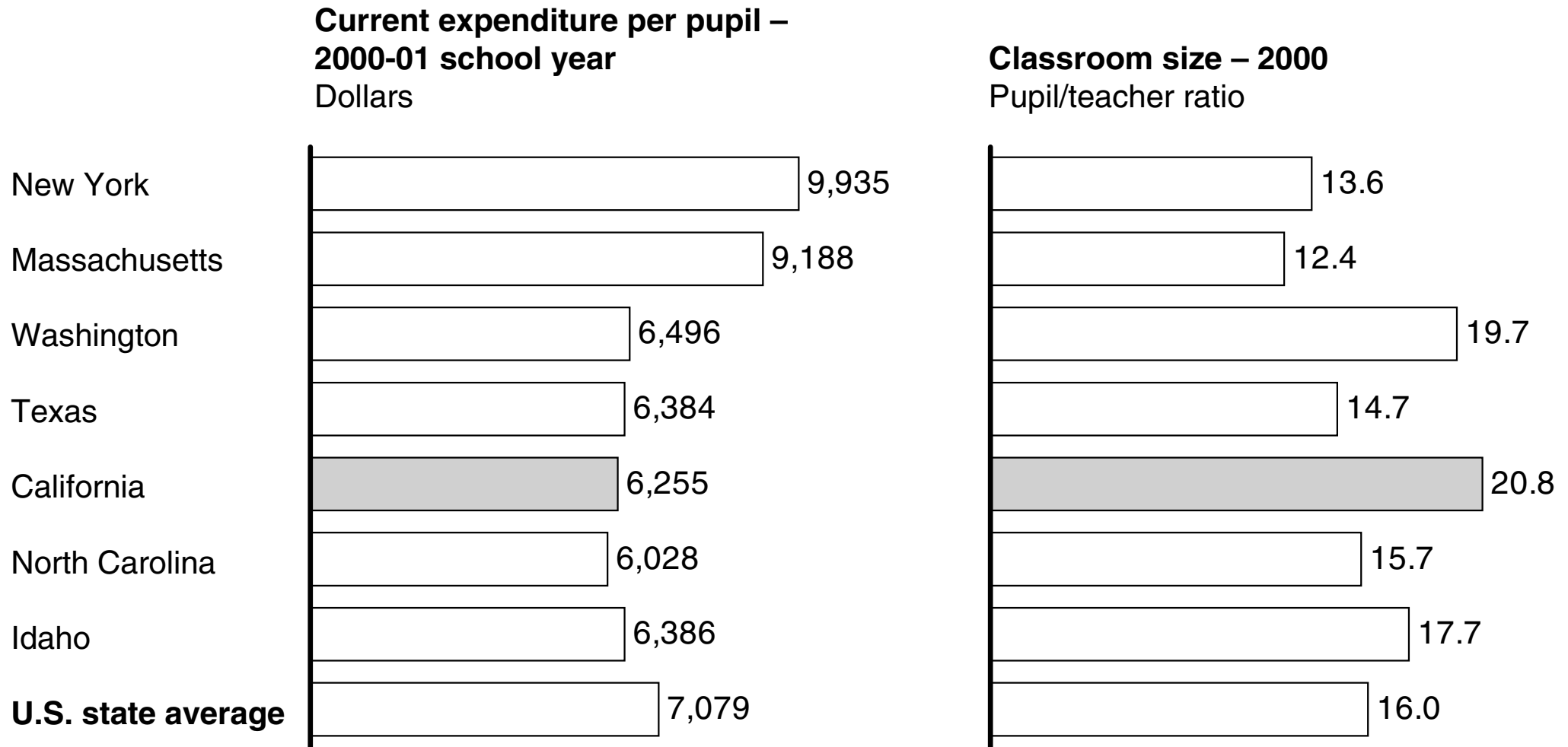
STAR Achievement, 2000

Percent of students scoring above 50th national percentile rank



Source: California Department of Education; Project team analysis

CALIFORNIA EDUCATION SYSTEM LAGS OTHER STATES IN SPENDING AND CLASS SIZE

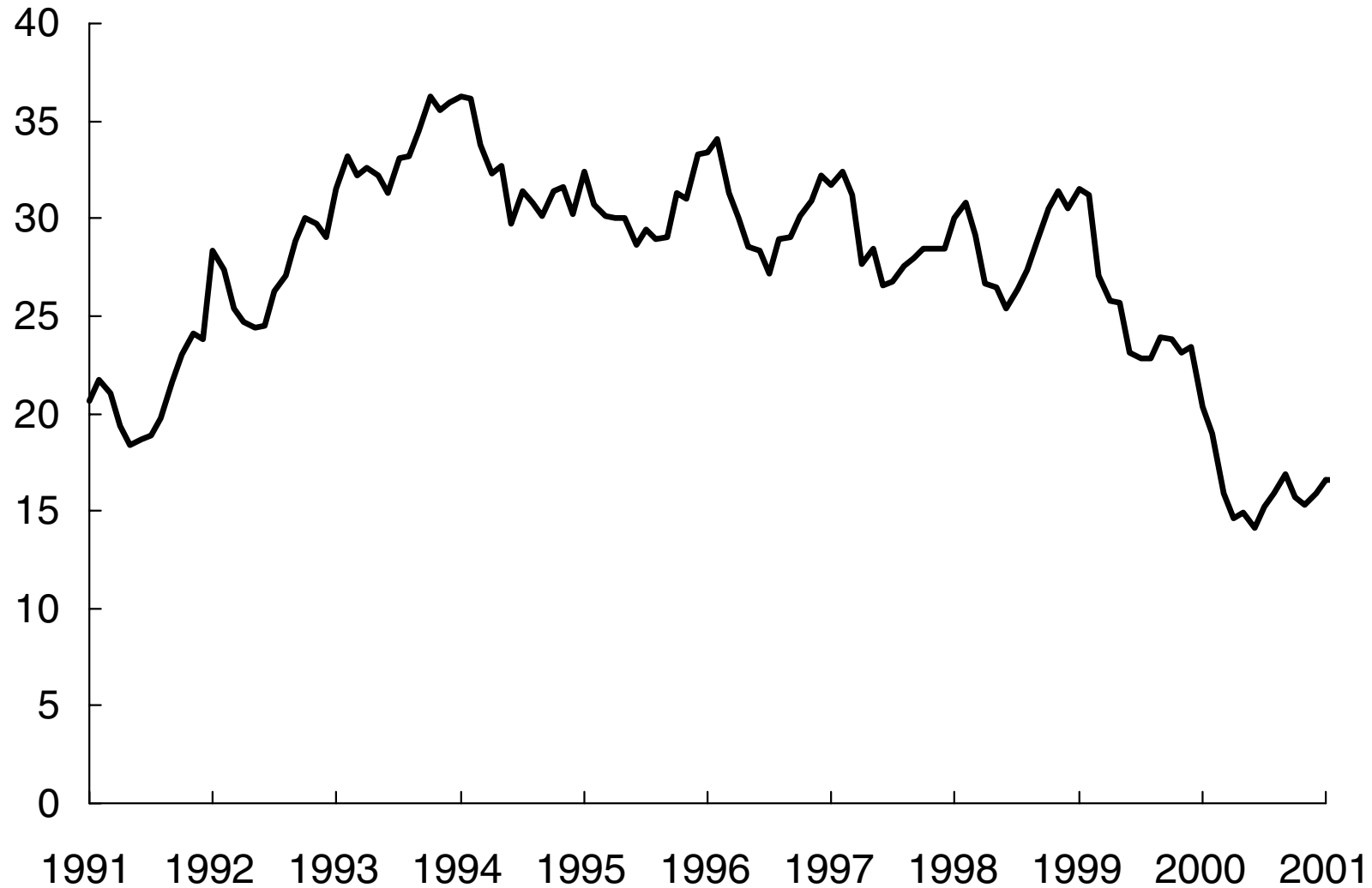


A-4: Housing Data

For Web-based appendix

HOUSING AFFORDABILITY DECREASED SIGNIFICANTLY DURING BUBBLE PERIOD

Bay Area* households able to afford median-priced home
Percent

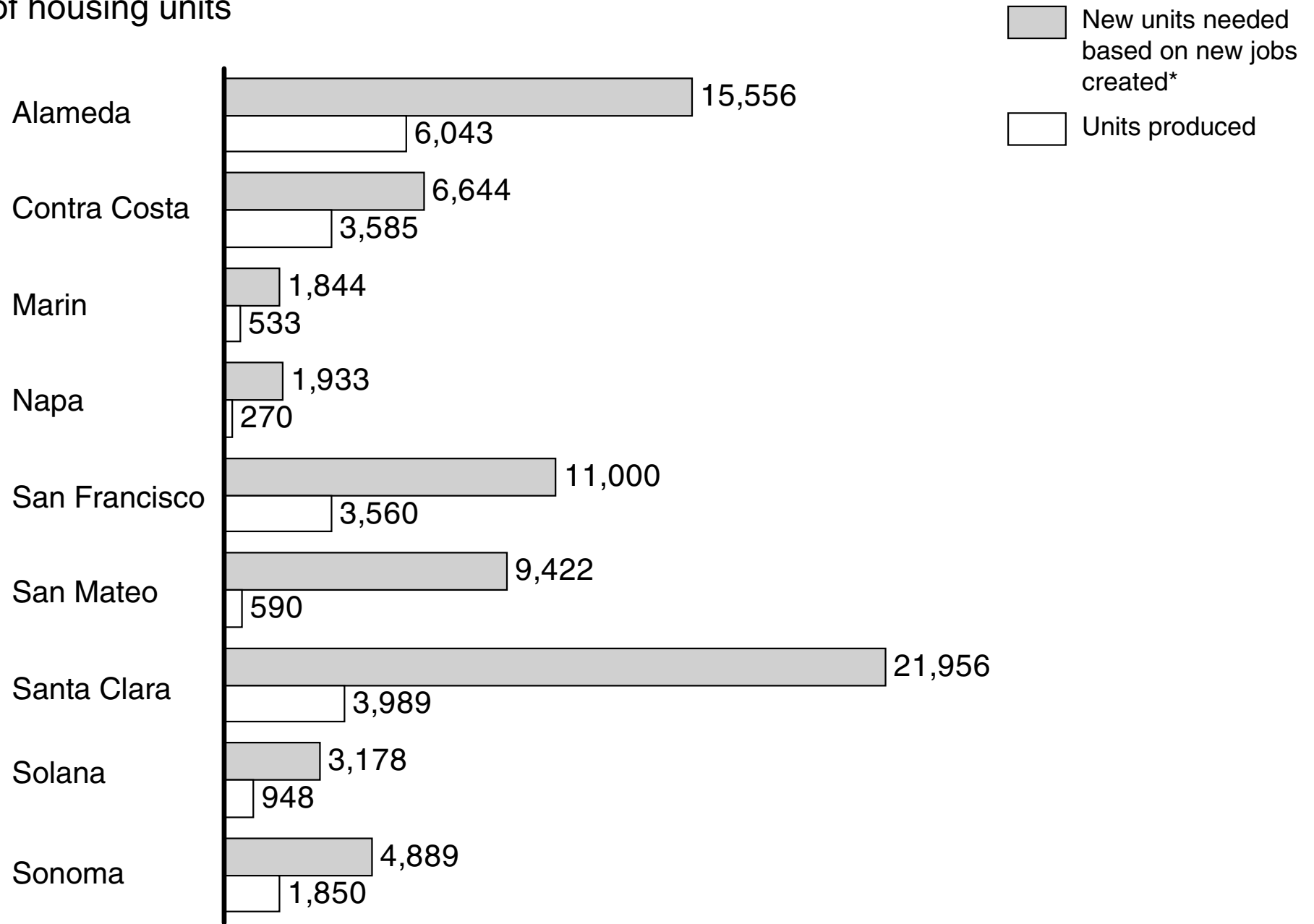


* Data not available for Solano and Napa counties

Source: California Association of Realtors; project team analysis

HOUSING PRODUCTION VS. NEED BY COUNTY – AVERAGE 1998-2000

Number of housing units

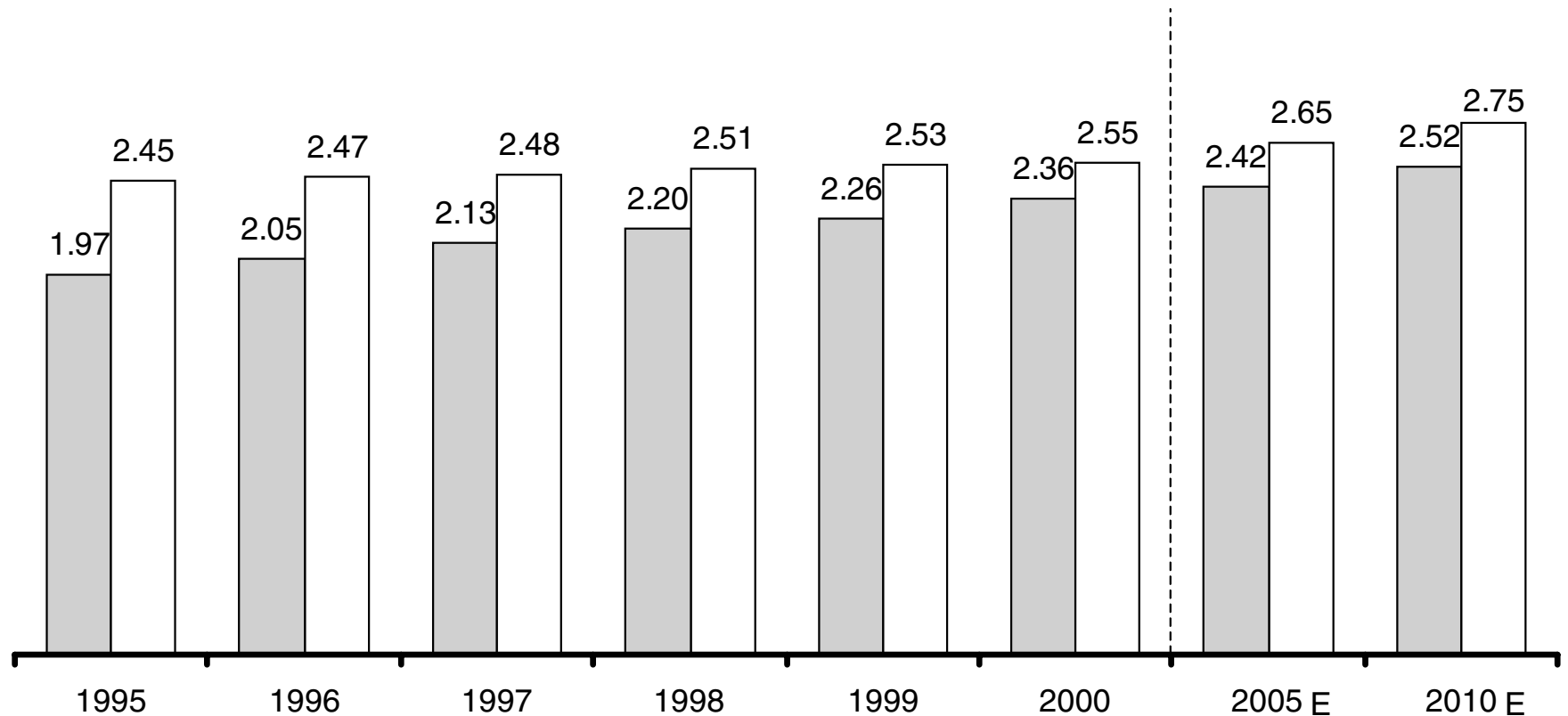


* Assumes 1.5 jobs/housing unit

STOCK OF HOUSING SUPPLY HAS NOT KEPT PACE WITH JOB CREATION IN THE BAY AREA

Housing needed, based on jobs
 Housing units available

Millions of housing units



Jobs per available housing unit

1995	1.21	2.14	1.29	1.32	1.34	1.39	1.39	1.39
------	------	------	------	------	------	------	------	------

Note: Assumes 1.5 jobs per housing unit. Excludes self-employment. 2005 job forecast based on preliminary ABAG projections

Source: California Employment Development Department; California Department of Finance; Association of Bay Area Governments