

Benchmarking the Bay Area's Environment for Entrepreneur-Led Start-ups

A Bay Area Council Economic Institute Report

October 2011



Bay Area Council Economic Institute

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Based on a Survey by Monitor Group

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Acknowledgements

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Executive Summary

Entrepreneurs and entrepreneur-led start-ups are responsible for nearly all net new job creation. The status of entrepreneurs and their ability to create and grow companies is therefore critical to employment, and entrepreneurial success and innovation are keys to overall economic competitiveness.

This report, based on entrepreneurs' perceptions of their business climate, finds that the Bay Area continues to excel in key areas they find important: business support services, specialized suppliers and consultants, incubators, business networks, venture capital, and technology transfer from universities and research institutions. With its unique business ecosystem, the region remains by any standard a premier location for entrepreneurs to start companies and create value. On the downside, access to debt capital is one of the biggest challenges entrepreneurs face. Government regulations can also be a problem when young companies start to grow.

A comparison of the Bay Area with other global business centers gives added perspective. Entrepreneurship in Asia—particularly China and India—is flourishing, as those countries' economies continue to experience rapid growth. While it continues to stand out, the Bay Area is no longer alone as a high-impact entrepreneurship hotspot. In Europe, on the other hand, slower growth and more government constraints keeps entrepreneurship relatively muted.

Several policy measures can strengthen the region's environment for entrepreneur-led start-ups. Governments at all levels—local, state and national—need to think more about how to help entrepreneurs succeed and grow. This need to be a major focus in any economic development strategy. Other policy focal points include streamlined permitting, high-quality broadband infrastructure, and regulations that increase costs—particularly as companies expand. At the federal level, Congress needs to provide better access to green cards and visas for educated entrepreneurs from other countries who want to start or invest in businesses in the United States.

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Introduction

This report was developed by the Bay Area Council Economic Institute based on a survey by Monitor Group, a leading global business consultancy, in order to assess the quality of the environment in the San Francisco Bay Area for entrepreneur-led start-ups. The findings are based on an entrepreneurship policy benchmarking survey, developed by Monitor, that since 2003 has been deployed in 30 global locations including China, India, Korea, Singapore, Russia, New Zealand, Switzerland, the United Kingdom, Scandinavia, Chile, the U.S. (overall) and most recently in Texas. Those surveys enable the identification of the Bay Area's specific strengths and challenges through the comparison of Bay Area survey results with results in other global centers.

At the broadest level, entrepreneurship is the creation and operation of new enterprises, often through the recognition of new opportunities or gaps in the existing market. Part of the difficulty in coming to a more rigorous understanding of entrepreneurship is that this definition can cover a wide range of economic activities, from self-employment due to personal preference or lack of alternatives, to the creation of potentially high-revenue, high-growth companies. This report focuses on the latter type of entrepreneur. The survey and the analysis derived from it address the kind of entrepreneurship that radically transforms industries and economies, creating significant potential for profits, jobs and prosperity.

The survey process was supported by the collaborative effort of a number of the region's leading business and entrepreneurial organizations, venture capital firms, incubators, business advisers, universities and national laboratories. The partners worked with the Economic Institute in customizing the Monitor survey to elicit information of specific interest to the Bay Area, circulating the survey to members and clients, and reviewing the findings. This helped the Institute reach deep into the entrepreneurial community. The result, we believe, is a unique perspective on a community central to the economic future of the San Francisco Bay Area and on the issues that affect the ability of entrepreneur-led start-ups to grow and prosper in the region.

Why entrepreneurs matter

The Bay Area has long been recognized as one of the leading global centers for entrepreneurial activity. While not limited to technology, the Bay Area's entrepreneurial leadership is closely identified with technology. Many of the region's iconic and soon-to-be-iconic firms have been started by entrepreneurs within the last thirty years. Whether still in start-up mode or well-established, their contribution to the Bay Area's economic identity, employment, innovation and competitiveness has been central to the region's success. The Bay Area's competitiveness as a place to start and grow a business is therefore a core regional concern.

The important role of start-ups in the national economy has been extensively documented, most specifically by the Ewing Marion Kauffman Foundation. A 2010 Kauffman study, *The Importance of Start-Ups in Job Creation and Job Destruction*, found that start-ups are responsible for all net job creation. By definition, new firms create jobs—an average of 3 million annually in their first year of existence. After starting up, attrition can be high, particularly in a firm's second and third years, but the firms that survive continue to create jobs, often at a high rate. The implications for policymakers are that a firm's first year of life has a dramatic effect on job creation and that policies to promote job growth should include a major focus on start-ups. This confirms recent findings by the Bay Area Council Economic Institute that the support and encouragement of new business creation from within a city, county or region may ultimately be a more effective economic development strategy than competition between jurisdictions for company relocation.

This is an important topic for California. Another recent Kauffman study, the *Kauffman Index of Entrepreneurial Activity 1996–2010*, finds that California is one of the top three states for entrepreneurial activity with 470 entrepreneurs per 100,000 adults (the other two states being Nevada and Georgia, each with 510 entrepreneurs per 100,000 adults). This activity is broadly distributed, with immigrant entrepreneurs almost twice as likely as native-born to start companies. It may also reflect growing self-employment in the wake of the last recession, but overall the pattern is consistent with historical trends.

Entrepreneurship is also a global phenomenon, inviting comparison between entrepreneurial environments and processes in different countries. With a growing premium being placed on innovation and human capital, entrepreneurship is being assigned new value by national governments. By this measure, the U.S. fares well: a recent study by the Small Business Administration ranks the U.S. third in the world as the best spot to start a company, after Denmark and Canada and ahead of Sweden and New Zealand. Another recent study by the World Bank,[‡] *Doing Business 2010*, places the U.S. in the top five globally—behind Singapore,

[‡] Source: Jeff May. "The Best Country to Start a Business..." *Wall Street Journal*. November 15, 2010.

New Zealand and Hong Kong and ahead of the UK—measured by how easy it is to start a business based on procedures, time, costs and capital requirements imposed by governments. As global competition for talent, jobs and capital grows, and as other countries explore entrepreneurship and innovation as new sources of growth, these comparisons take on added significance.

More than anywhere else in the world, the Bay Area is known as a mecca for entrepreneurs and innovators. Google, Genentech, VM Ware, and more recently Facebook and Zynga have in only a few years grown from just a few dozen employees to 26,000, 11,000, 9,000, 2,000 and 1,200 respectively. In the process they have created new paradigms that are transforming global business. It is essential, therefore, that Bay Area government and other leaders understand the conditions that either nurture or discourage entrepreneurial activity and how Bay Area conditions compare to regions around the world.

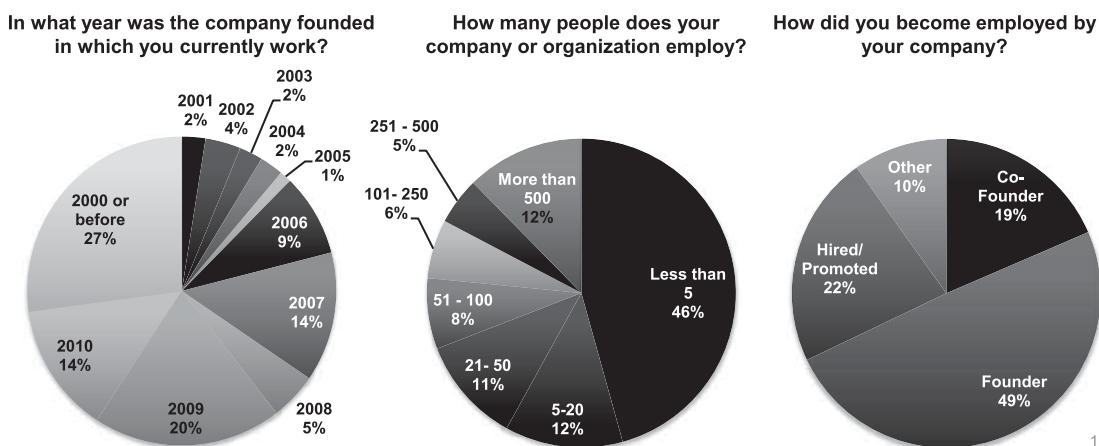
Governments frequently assess and respond to the needs of large companies, but the entrepreneurial community is more difficult to access and its perspective is easily missed. The findings in this analysis come directly from entrepreneurs and the organizations that support them. We believe they also provide insight into broader business climate issues in the region and the state, and serve as benchmarks for good public policy.

Who responded

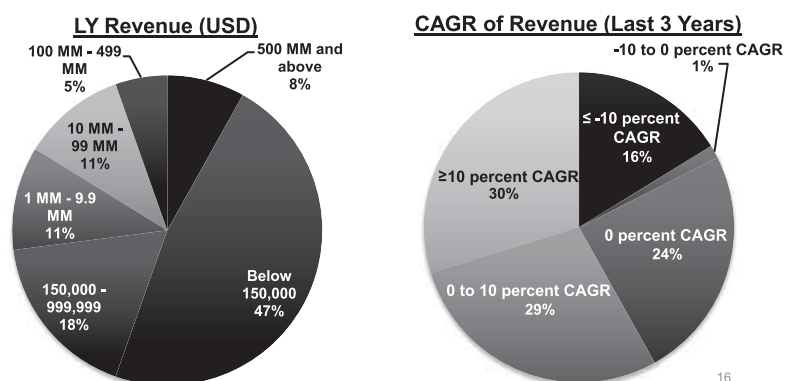
Seventy-three percent of the 121 respondents to the survey were entrepreneurs and 27% were advisors, investors or service providers. This distribution provided a balanced sampling of entrepreneur perspectives. More than 60% of respondents had a graduate degree and had been working in their field for at least five years. More than 70% held the position of chairman, CEO, president, chief financial officer, chief operating officer, deputy chief executive, senior vice president, senior manager, senior adviser or manager. The majority were either founders or co-founders of their companies, with many working in recently-formed start-ups or small firms. Most of these were fast-growing firms. Represented sectors ranged from information technology to power generation, financial services, health care and medical devices. Forty-six percent of the firms had five or fewer employees and 12% had more than 500, with the balance in between.

Entrepreneur Survey Demographics

The majority of respondents were founders or co-founders of their companies with many working at recently-formed start-ups or small firms.[‡]



Most work at high-growth start-ups or small firms.[‡]

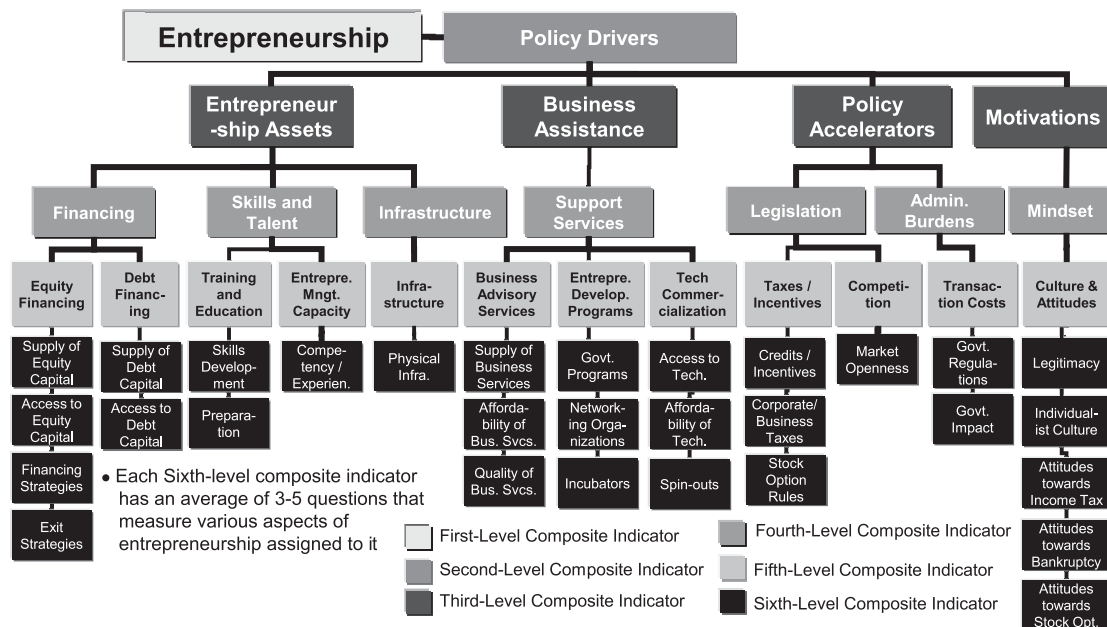


[‡] Source: Monitor Entrepreneur Benchmarking Survey, 2003–2011

The Bay Area provides a rich environment for entrepreneurs—but other regions are in the race

The survey asked a series of questions about the policy drivers that influence a region's entrepreneurial environment. These questions were substantially the same across all locations where the Monitor survey was deployed. Each question had an average of 62 responses.

A dynamic Entrepreneurship Model was developed to measure key aspects of entrepreneurship policy[†]



6

Comparisons between the regions covered by the survey should be made with caution, since each is a snapshot of entrepreneurs' perceptions of their environment at different locations and at different points in time. In particular, the Bay Area responses should be read in light of the fact that most earlier surveys were conducted at a time of strong economic growth (2003–2007), while the Bay Area survey was taken in late 2010 and early 2011 in the aftermath of a deep recession. It is likely that if the survey timeframes were comparable, the Bay Area results would be even stronger. The Texas survey, however, was also conducted in 2010 and its generally positive responses are indicative of Austin's strong entrepreneurial climate. The responses may also reflect the fact that the Bay Area is a relatively mature environment for start-ups, with seasoned entrepreneurs who have been through business cycles. This contrasts with parts of Asia where entrepreneur-led growth is a relatively recent phenomenon, experience with the adversities that entrepreneurs can face is lower, and expectations are higher. With these caveats, the survey responses point to some broad take-aways about the entrepreneurial climate in the Bay Area and in other regions.

[†] Source: Monitor Entrepreneur Benchmarking Survey, 2003–2011

Bay Area Indicators

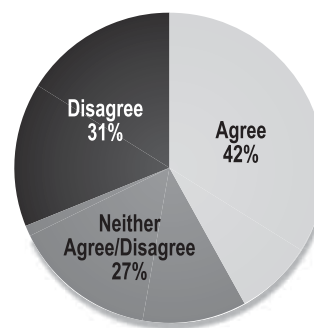
Entrepreneurial Culture

Entrepreneurship, risk-taking and innovation are critical ingredients in helping to explain why the Bay Area does well in creating high-impact entrepreneurs. As the questions below indicate, the Bay Area is a place that generally encourages risk-taking in one's career, values entrepreneurship as a career choice, and does not necessarily see failure as a disgrace. Asia is surprisingly strong in these categories, due to its sustained economic growth, while Europe is less so.

Culture and Attitudes – Individualist Culture

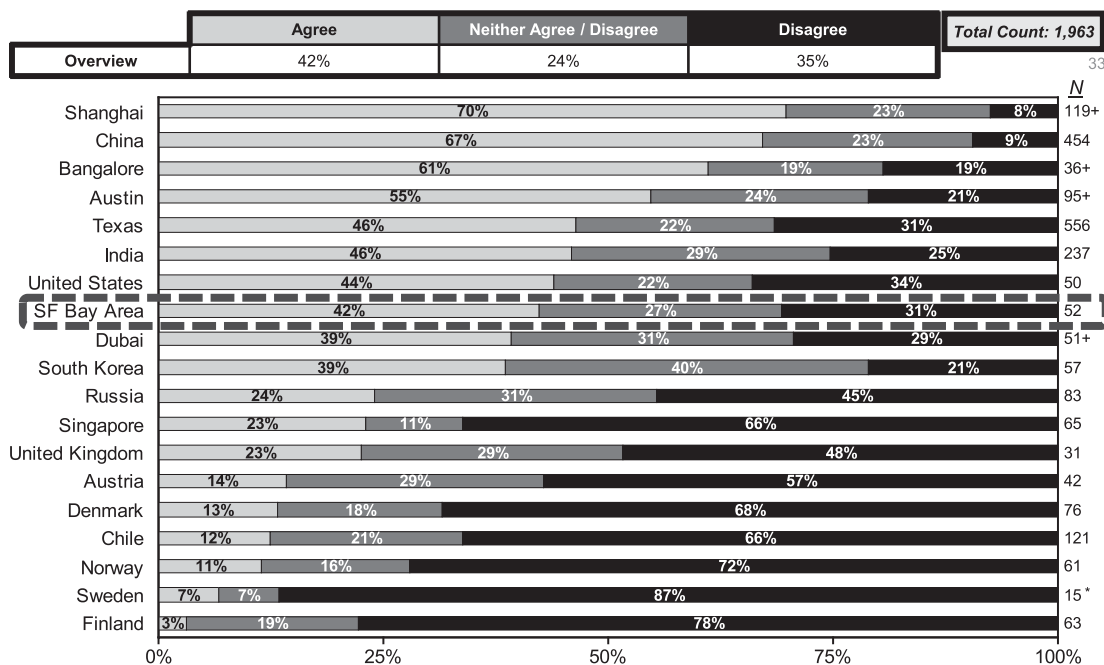
People encourage risk-taking in one's career:

Bay Area Results



Respondents Total Count: 52

Global Comparison



*Respondent counts below 30 are too low to be statistically significant and are considered indicative results.

+Results represent a regional or city-level subset of a larger survey and are thus excluded from totals.

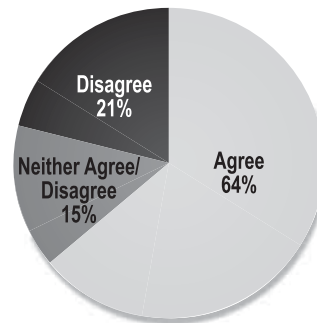
Due to rounding, percentages in some answer groups may not add up to exactly 100%.

Source: Monitor Entrepreneur Benchmarking Survey, 2003–2011

Culture and Attitudes – Legitimacy

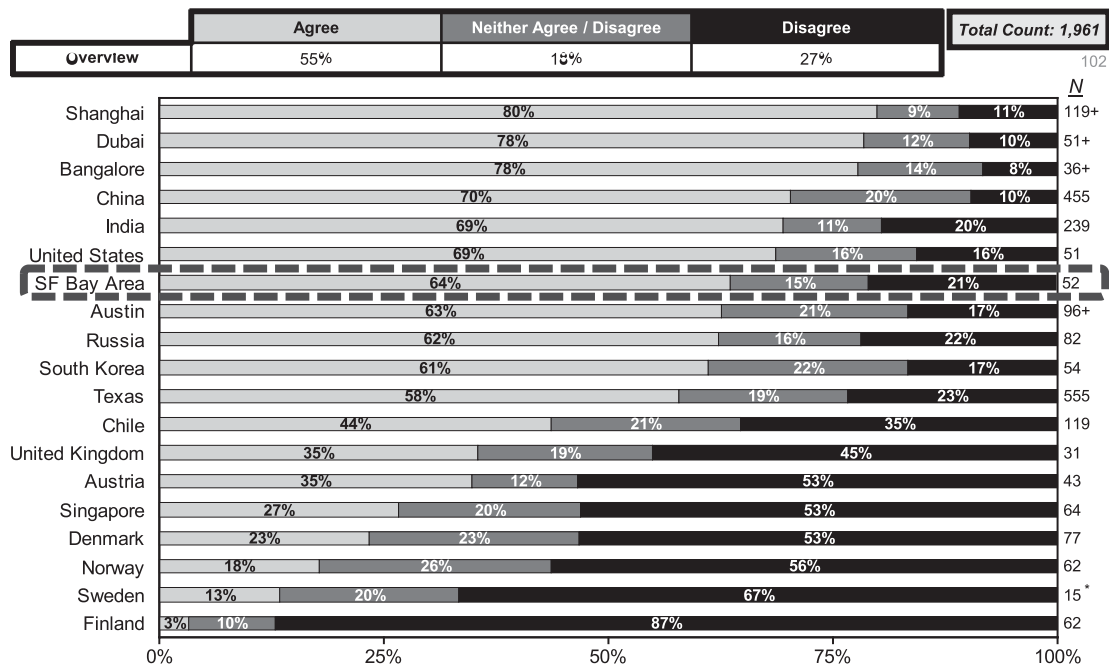
Most people consider becoming an entrepreneur a desirable career choice:

Bay Area Results



Respondents Total Count: 52

Global Comparison



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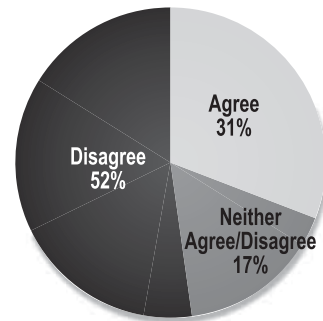
Due to rounding, percentages in some answer groups may not add up to exactly 100%.

Source: Monitor Entrepreneur Benchmarking Survey, 2003–2011

Culture and Attitudes – Attitudes Toward Bankruptcy

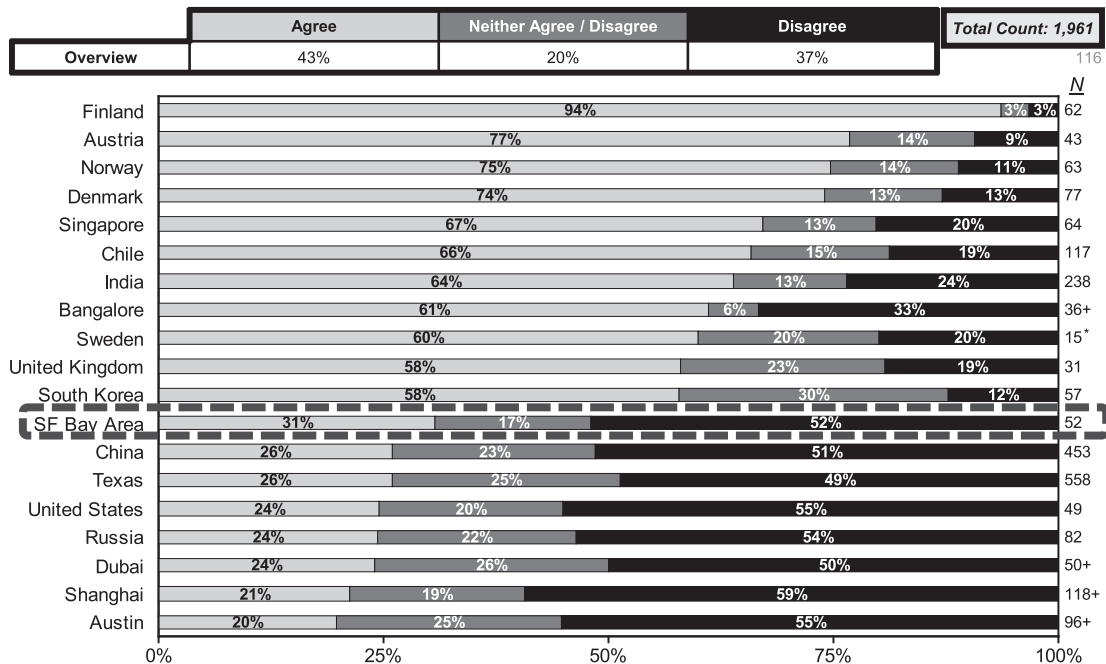
To start a business and fail is considered a disgrace:

Bay Area Results



Respondents Total Count: 52

Global Comparison



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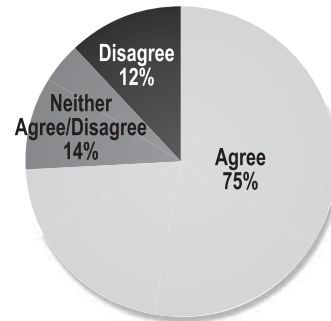
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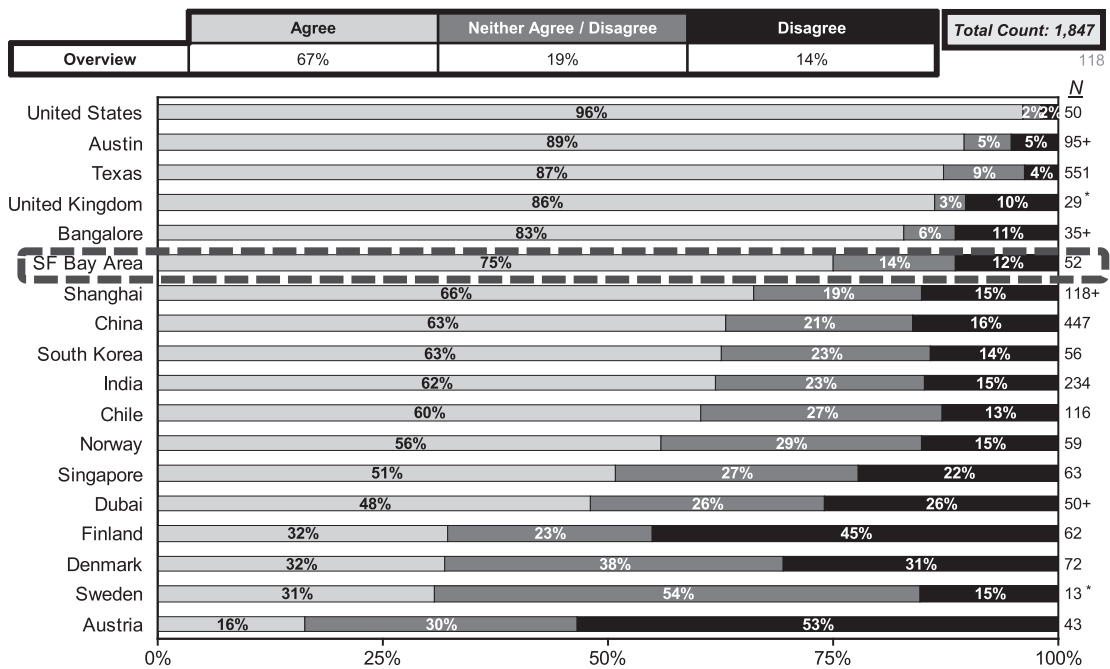
It is common for people who have failed in business to try again:

Bay Area Results



Respondents Total Count: 52

Global Comparison



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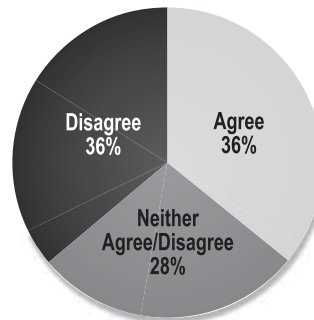
Incentives

Specific tax incentives to support R&D or commercialization of R&D play a much smaller role in the Bay Area than elsewhere, especially compared with key Asian regions.

Taxes / Incentives – Credits / Incentives

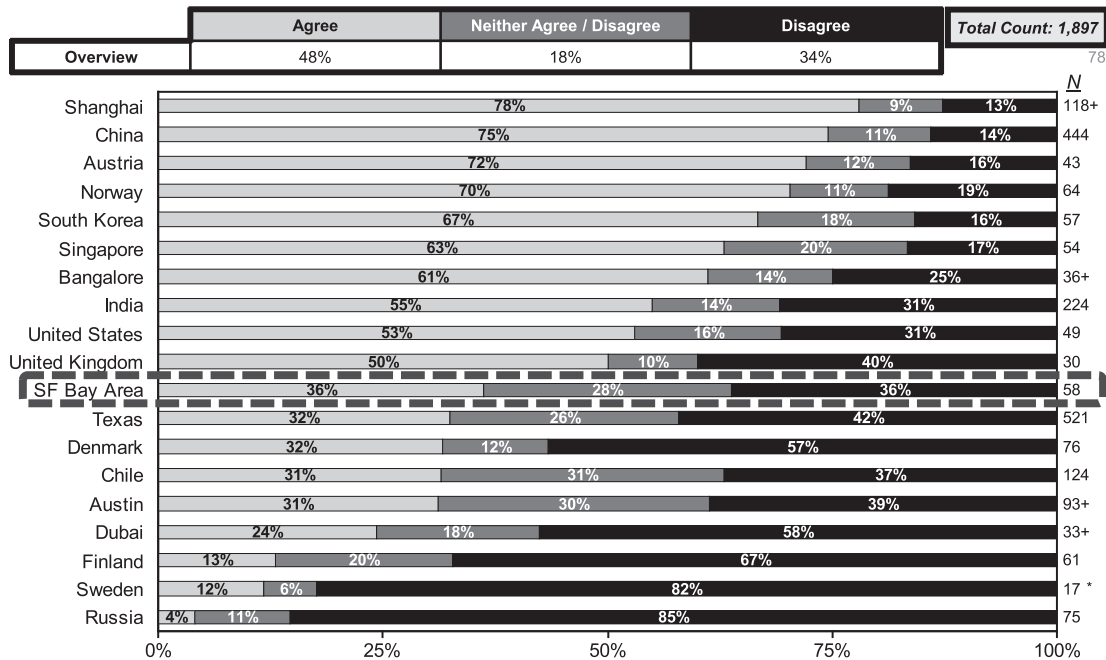
The government has developed tax incentives to increase the amount of research and development:

Bay Area Results



Respondents Total Count: 58

Global Comparison



*Respondent counts below 30 are too low to be statistically significant and are considered indicative results.

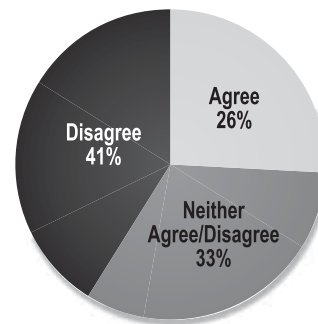
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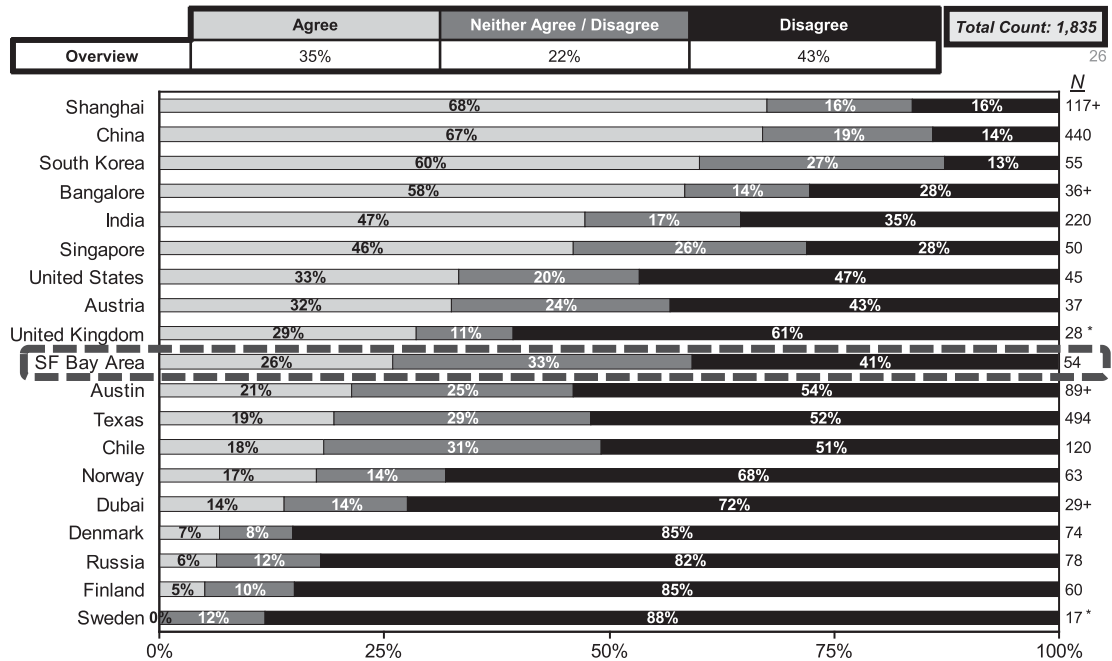
New and growing firms are given special tax incentives for commercializing research and development:

Bay Area Results



Respondents Total Count: 54

Global Comparison



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Source: Monitor Entrepreneur Benchmarking Survey, 2003–2011

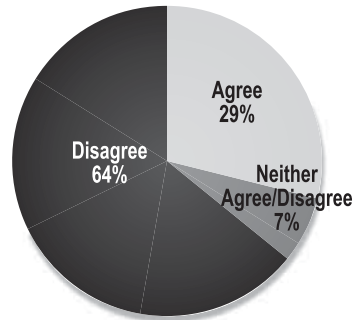
Taxes and Regulation

Business tax policy affects start-ups, and their ability to grow, particularly compared to most regions outside the U.S.

Taxes / Incentives – Corporate Business Taxes

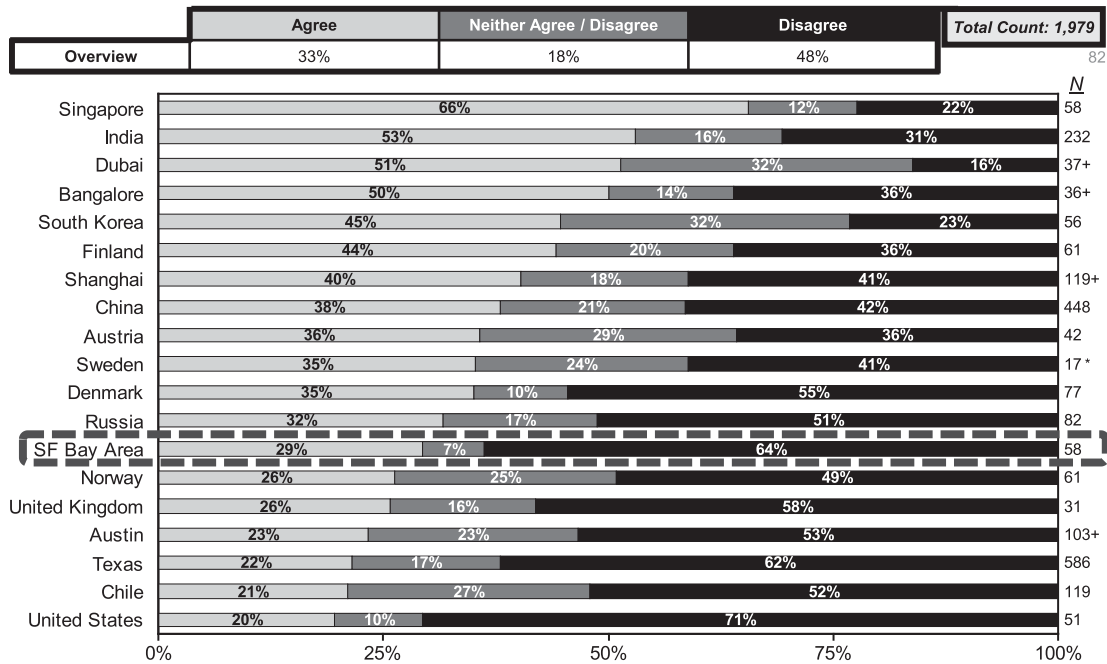
Business tax policy does not interfere with the ability to *launch* new firms successfully:

Bay Area Results



Respondents Total Count: 58

Global Comparison



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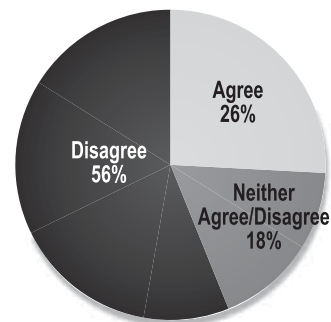
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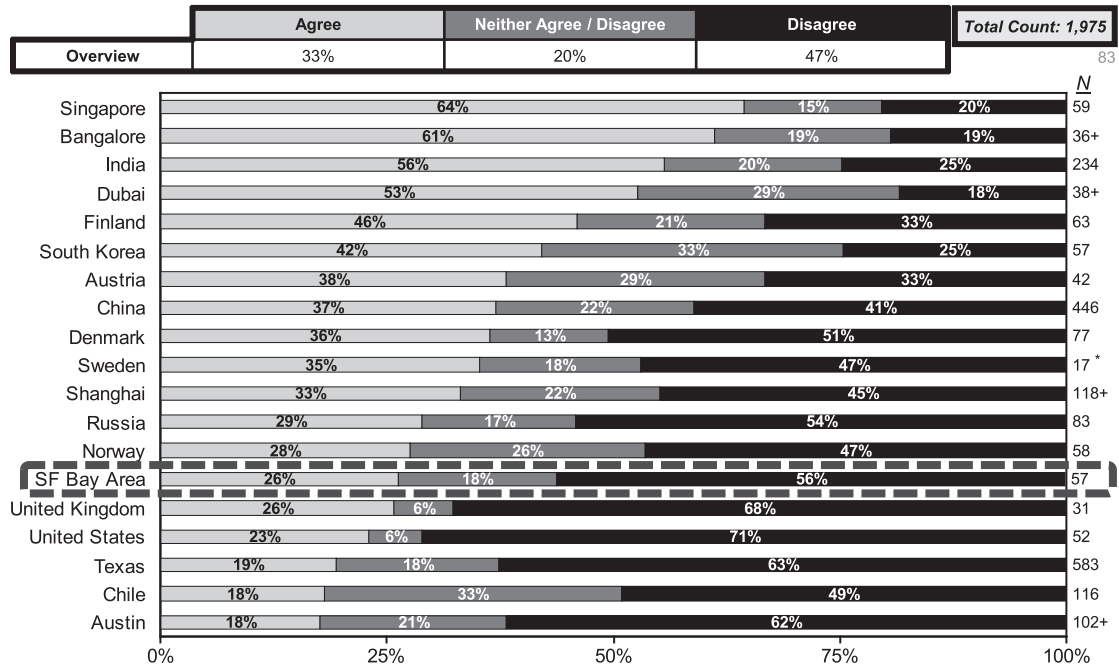
Business tax policy does not interfere with the ability to *grow* firms successfully:

Bay Area Results



Respondents Total Count: 57

Global Comparison



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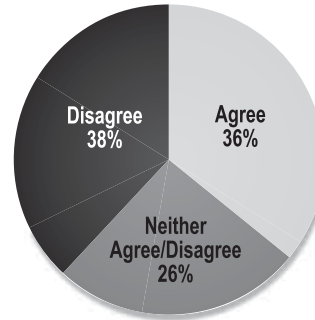
Source: Monitor Entrepreneur Benchmarking Survey, 2003–2011

Concern about income tax is lower than in Europe but higher than in Asia.

Culture and Attitudes – Attitudes Towards Income Tax

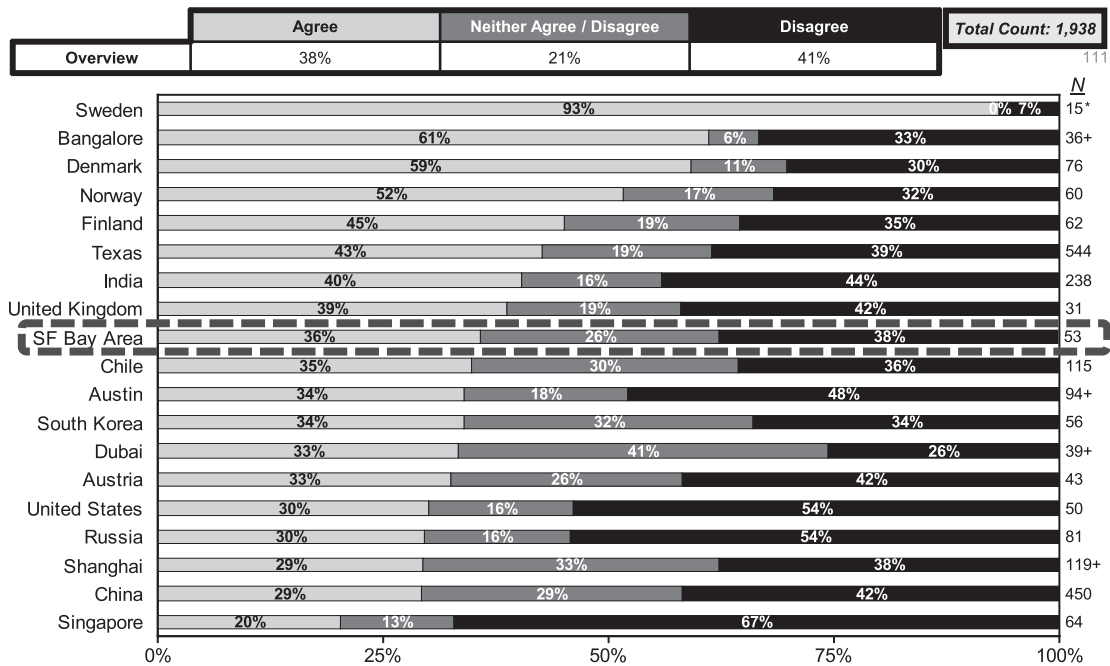
The level of income taxes discourages people from starting new firms:

Bay Area Results



Respondents Total Count: 53

Global Comparison



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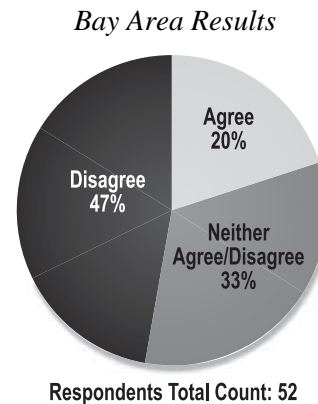
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Source: Monitor Entrepreneur Benchmarking Survey, 2003–2011

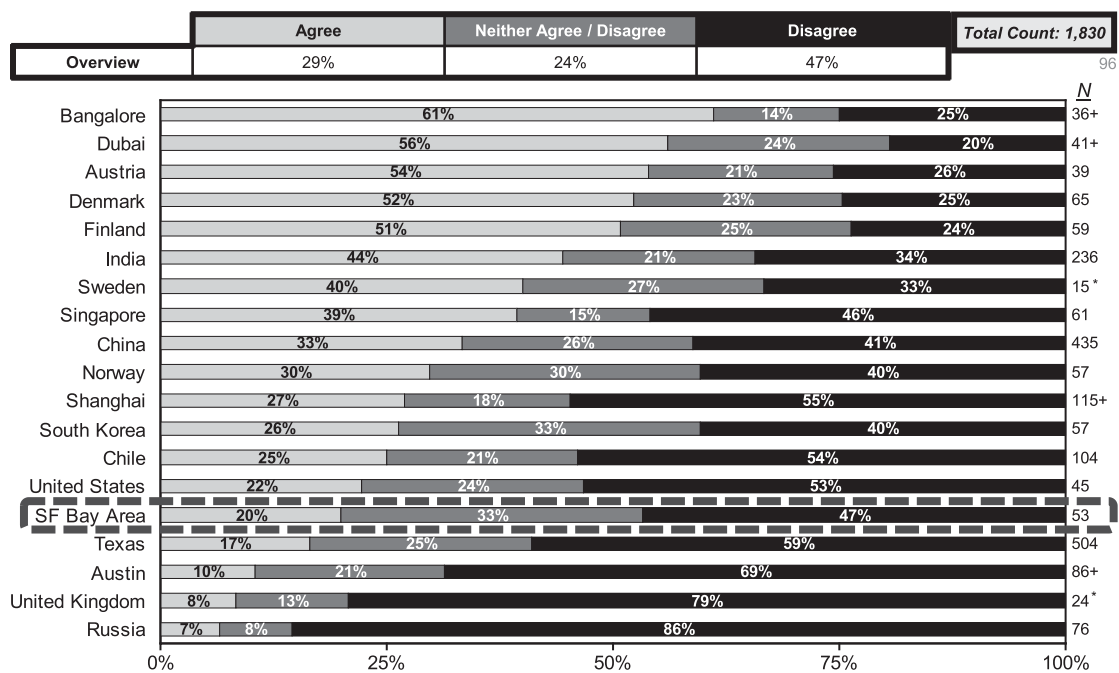
Government regulations and transaction costs impact start-ups more negatively in the Bay Area than in much of Asia and Europe. Permitting can be a problem.

Transaction Costs – Government Regulations

Compliance with government regulations does not unfairly burden (e.g., administrative, cost, etc.) new and growing firms:



Global Comparison



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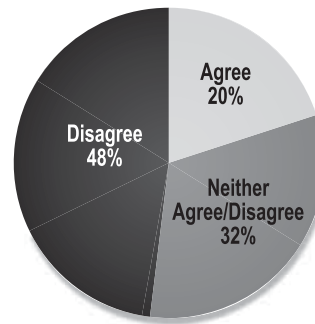
Due to rounding, percentages in some answer groups may not add up to exactly 100%.

Source: Monitor Entrepreneur Benchmarking Survey, 2003–2011

Transaction Costs – Government Impact

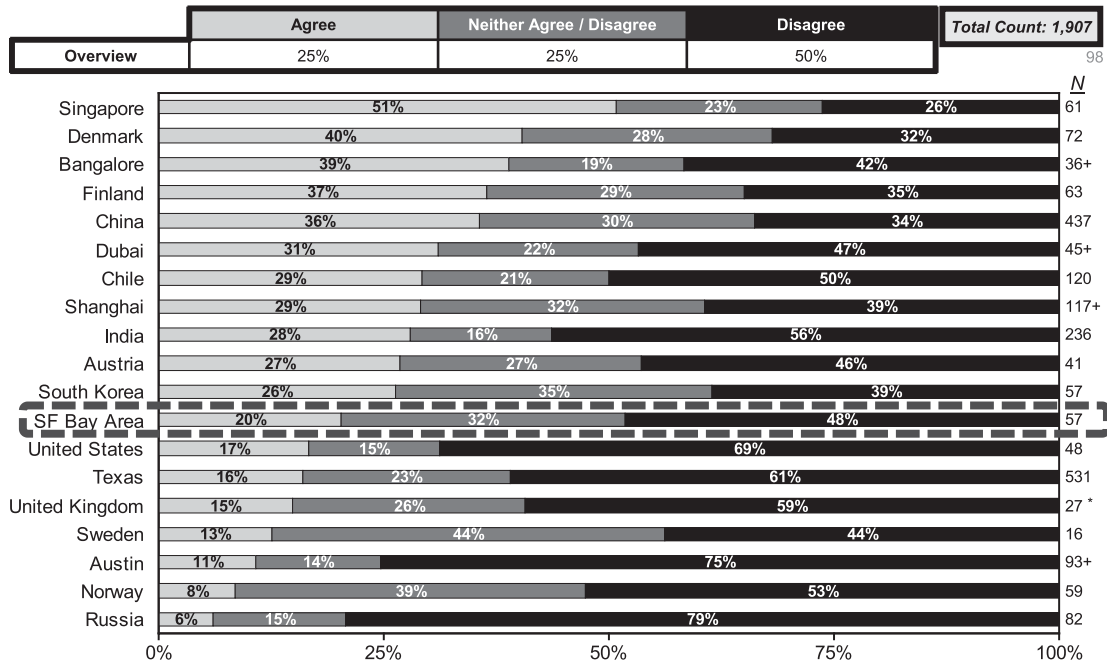
Government makes it easy for new and growing firms to get required permits and licenses:

Bay Area Results



Respondents Total Count: 57

Global Comparison



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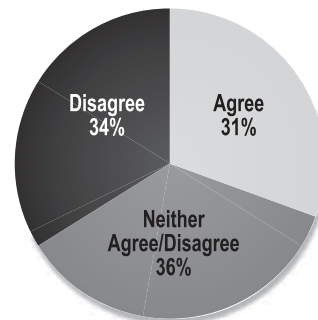
Source: Monitor Entrepreneur Benchmarking Survey, 2003–2011

Government labor rules impact Bay Area start-ups but are a bigger problem in Europe.

Transaction Costs – Government Regulations

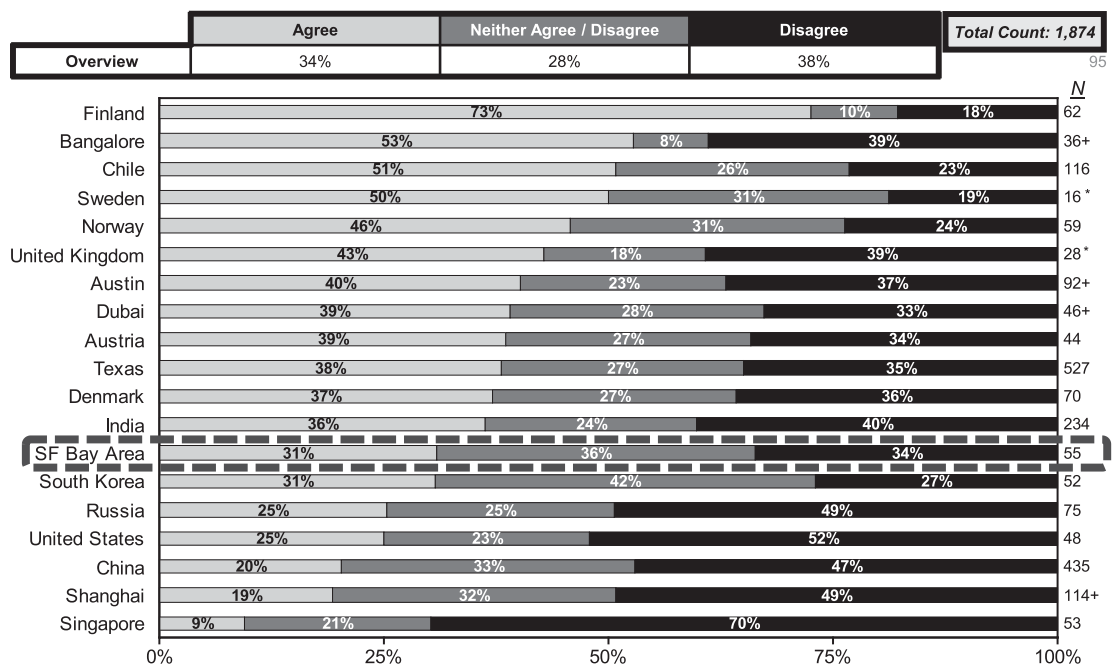
Government labor regulations actively discourage the hiring of employees:

Bay Area Results



Respondents Total Count: 55

Global Comparison



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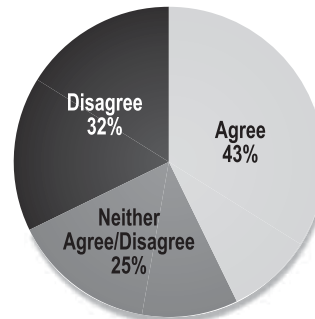
Finance and Investment

Bay Area Entrepreneurs generally have good access to individual investors. The region ranks well ahead of Europe in this category, but behind Asia. As noted earlier, comparisons to other regions should take into account the different time periods when the surveys were conducted.

Equity Financing – Access to Equity Capital

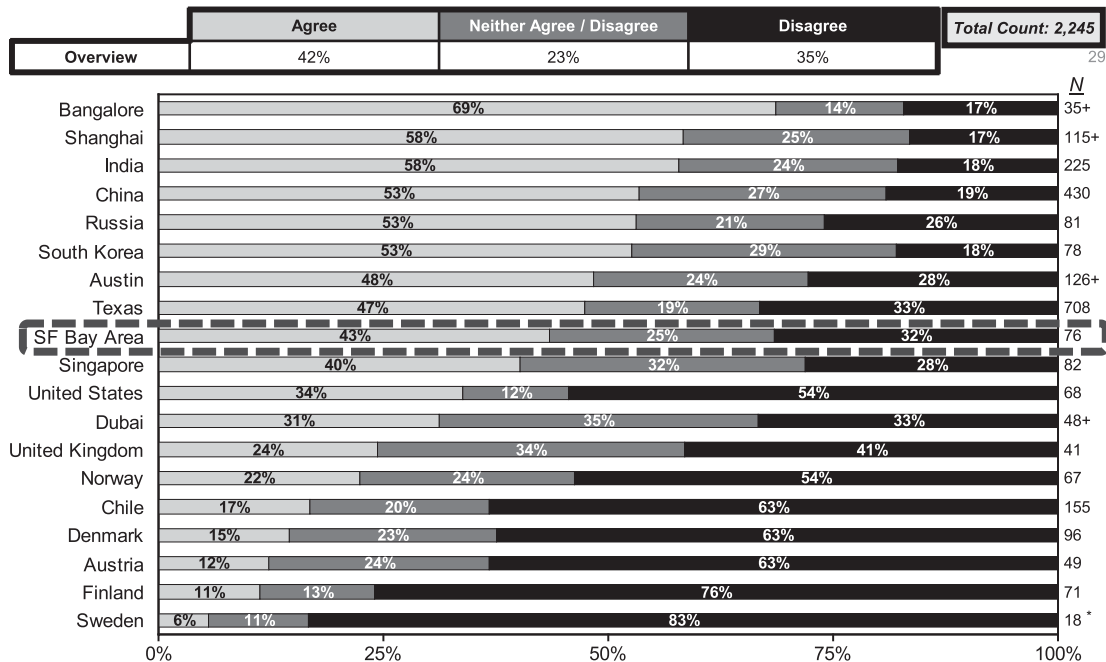
Most entrepreneurs personally know one or more private individual investors (i.e., “angels”):

Bay Area Results



Respondents Total Count: 76

Global Comparison



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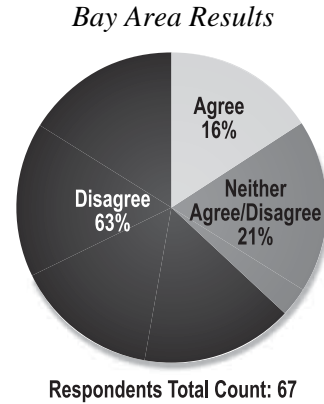
Due to rounding, percentages in some answer groups may not add up to exactly 100%.

Source: Monitor Entrepreneur Benchmarking Survey, 2003–2011

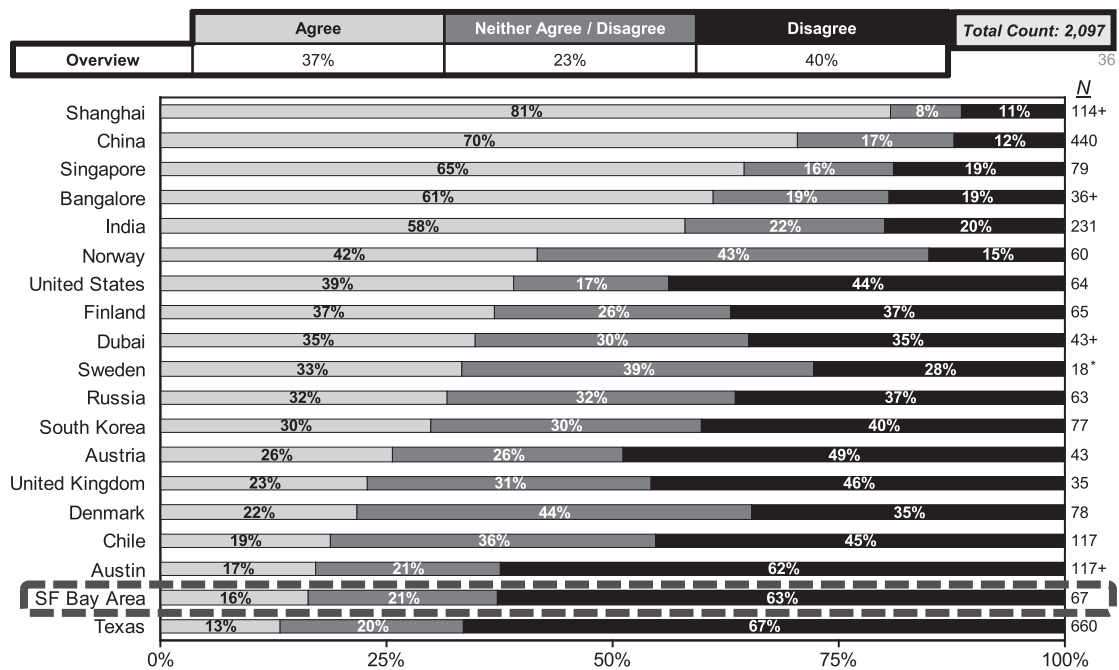
Public listing regulations are seen as onerous compared to other regions.

Equity Financing – Financing Strategies

Listing regulations and requirements do not discourage companies from seeking public listings:



Global Comparison



*Respondent counts below 30 are too low to be statistically significant and are considered indicative results.

+Results represent a regional or city-level subset of a larger survey and are thus excluded from totals.

Due to rounding, percentages in some answer groups may not add up to exactly 100%.

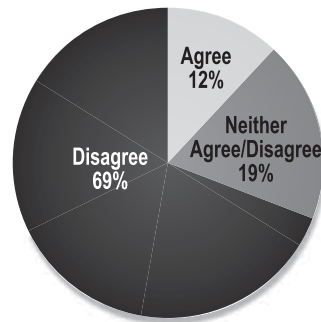
Source: Monitor Entrepreneur Benchmarking Survey, 2003–2011

Access to debt capital is a problem. So is its cost. This is likely a reflection of the dearth of debt finance in the aftermath of the last recession. As noted earlier, comparisons to other regions should take into account the different time periods when the surveys were conducted.

Debt Financing – Supply of Debt Capital

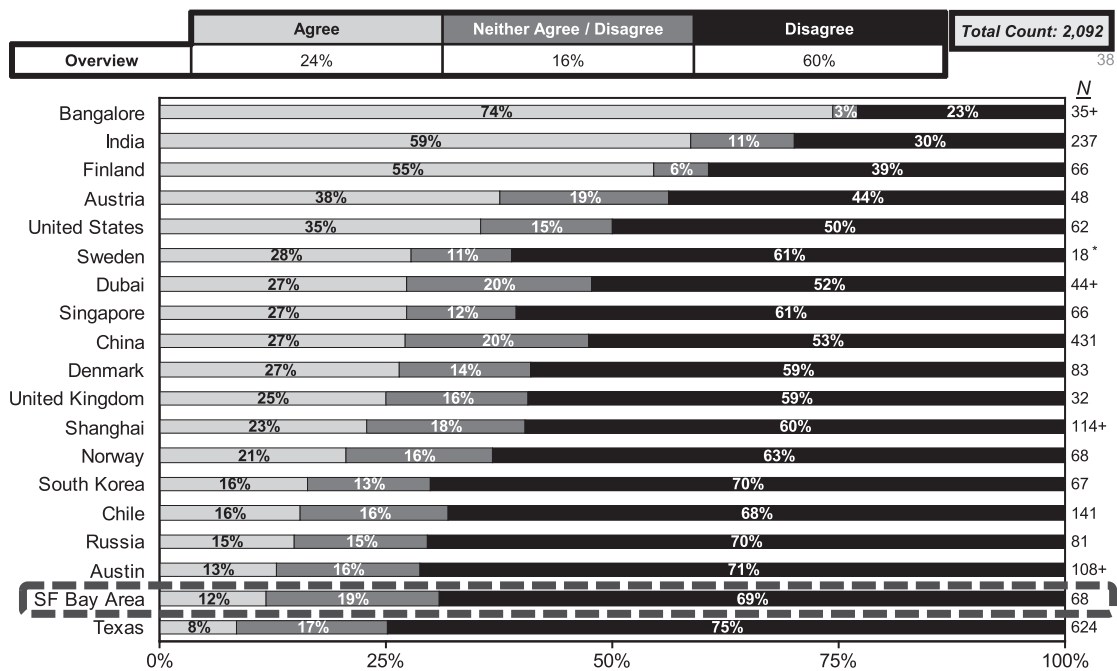
There is a sufficient supply of debt capital for starting firms:

Bay Area Results



Respondents Total Count: 68

Global Comparison



*Respondent counts below 30 are too low to be statistically significant and are considered indicative results.

+Results represent a regional or city-level subset of a larger survey and are thus excluded from totals.

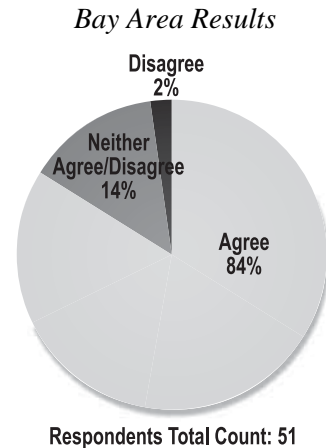
Due to rounding, percentages in some answer groups may not add up to exactly 100%.

Source: Monitor Entrepreneur Benchmarking Survey, 2003–2011

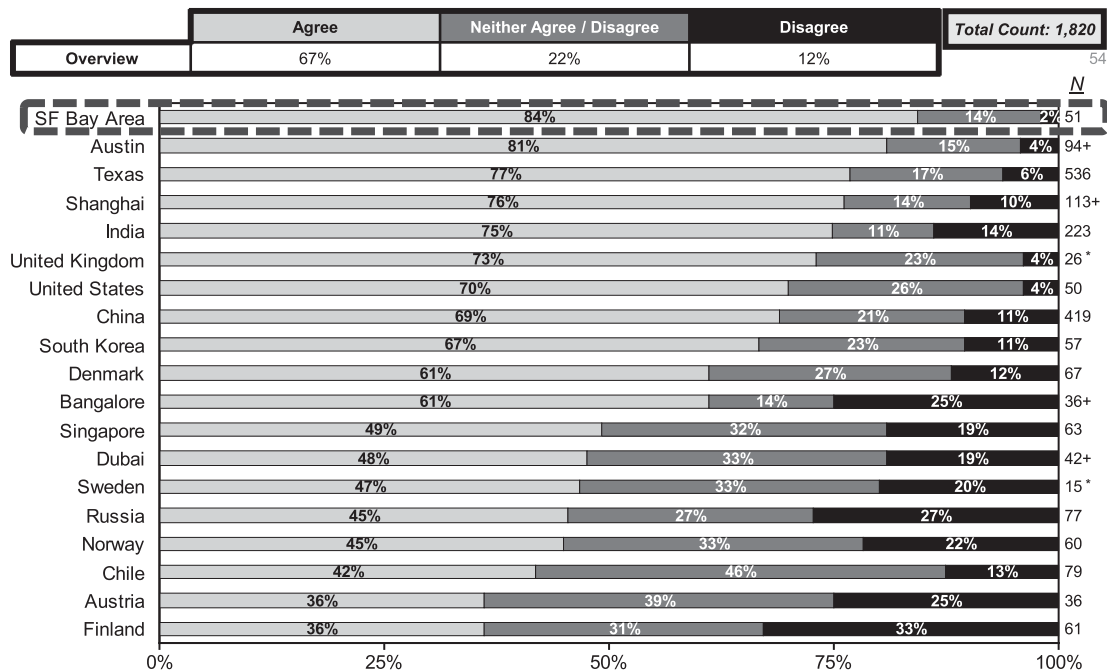
Stock options are considered an important source of compensation in the Bay Area.

Culture and Attitudes – Attitudes Towards Stock Options

Stock options are considered a positive source of compensation:



Global Comparison



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Due to rounding, percentages in some answer groups may not add up to exactly 100%.

Source: Monitor Entrepreneur Benchmarking Survey, 2003–2011

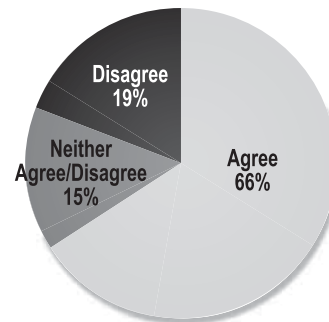
Business Advisory Services and Supplier Networks

The Bay Area provides excellent access to business support services.

Business Advisory Services – Supply of Business Services

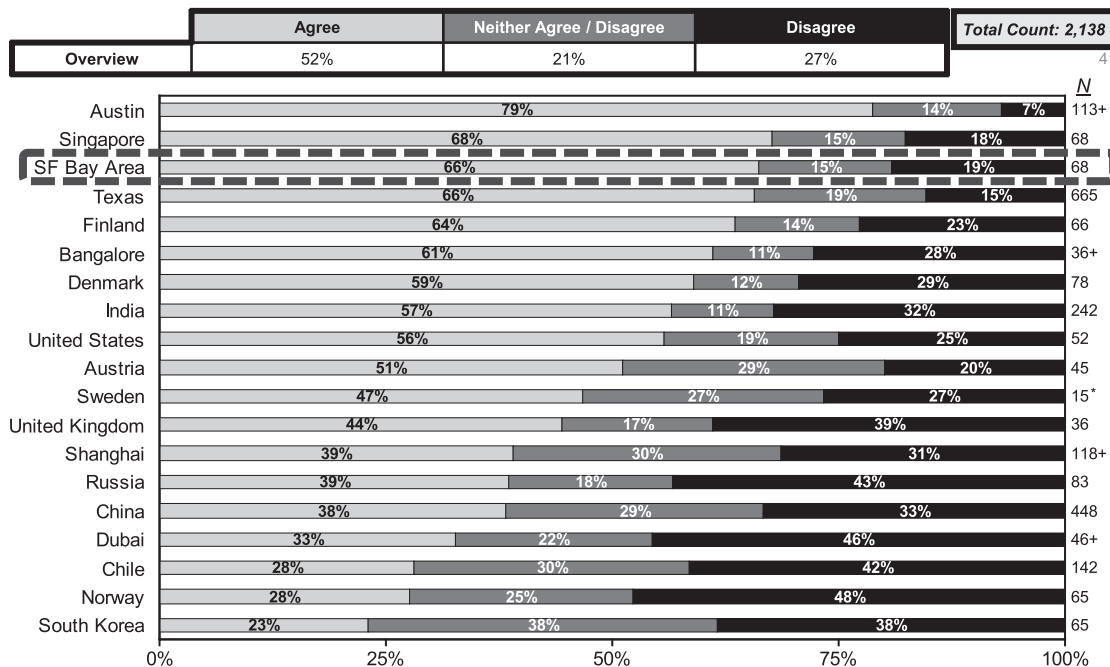
Business support services are sufficient to meet the needs of new firms:

Bay Area Results



Respondents Total Count: 68

Global Comparison



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+Results represent a regional or city-level subset of a larger survey and are thus excluded from totals.

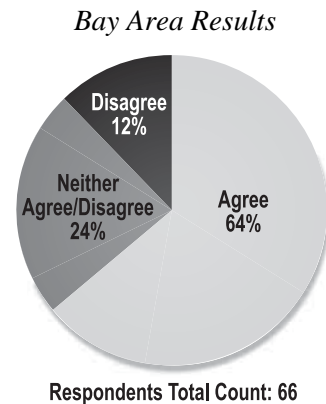
Due to rounding, percentages in some answer groups may not add up to exactly 100%.

Source: Monitor Entrepreneur Benchmarking Survey, 2003–2011

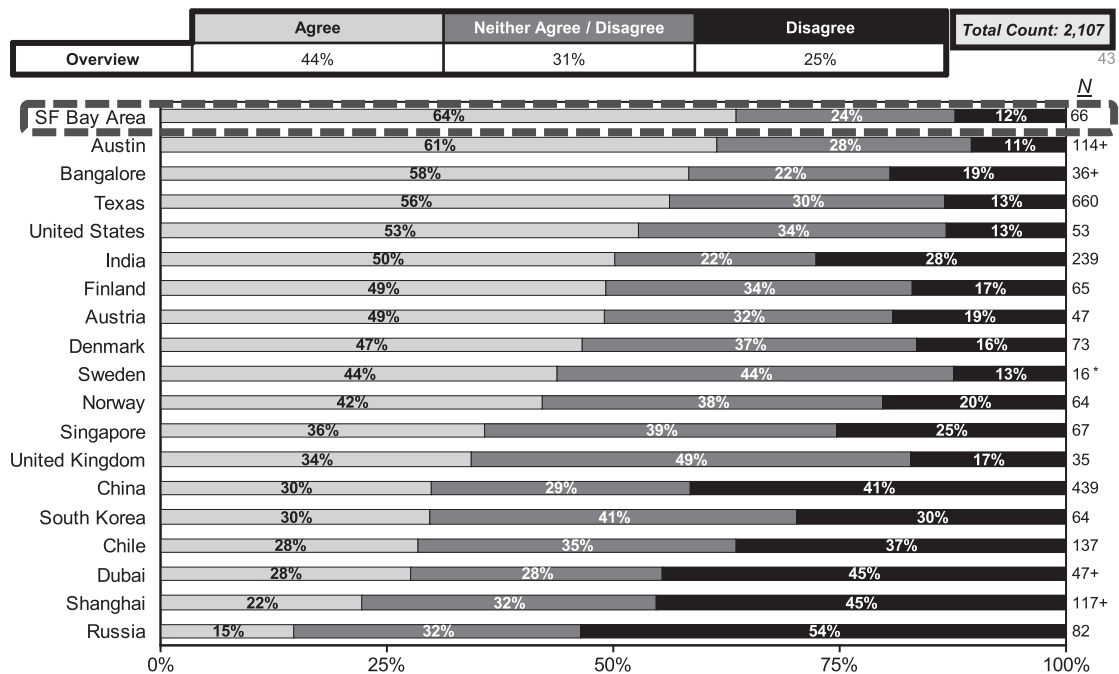
The Bay Area has robust support networks of subcontractors, suppliers and specialized business services, enabling the development of strong business clusters.

Business Advisory Services – Quality of Business Services

Subcontractors, suppliers, and consultants provide high-quality services to new and growing firms:



Global Comparison



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Due to rounding, percentages in some answer groups may not add up to exactly 100%.

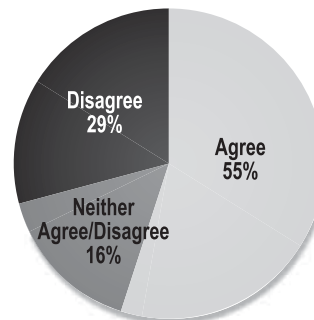
Source: Monitor Entrepreneur Benchmarking Survey, 2003–2011

Technology incubators play a positive role.

Entrepreneurial Development Programs – Incubators

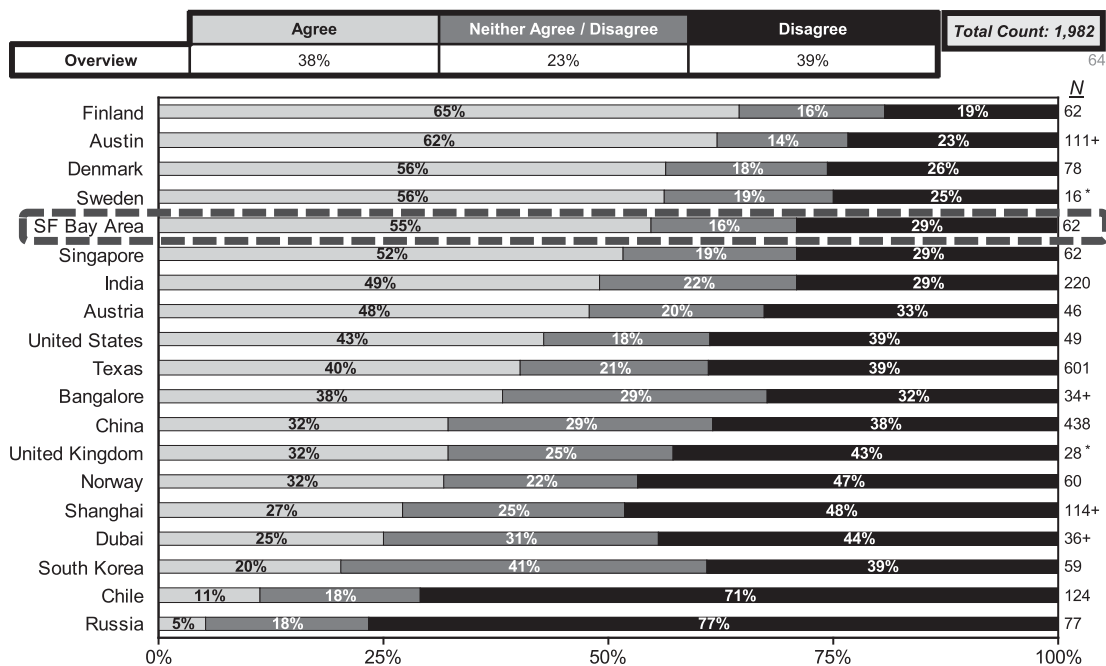
There are a sufficient number of technology-focused incubators to support the launch of “high-tech” firms:

Bay Area Results



Respondents Total Count: 62

Global Comparison



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+Results represent a regional or city-level subset of a larger survey and are thus excluded from totals.

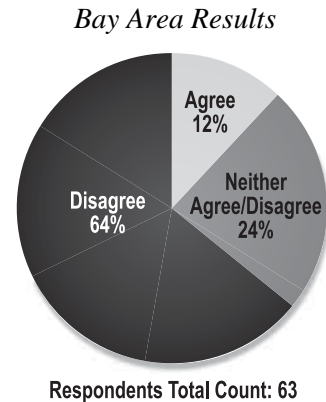
Due to rounding, percentages in some answer groups may not add up to exactly 100%.

Source: Monitor Entrepreneur Benchmarking Survey, 2003–2011

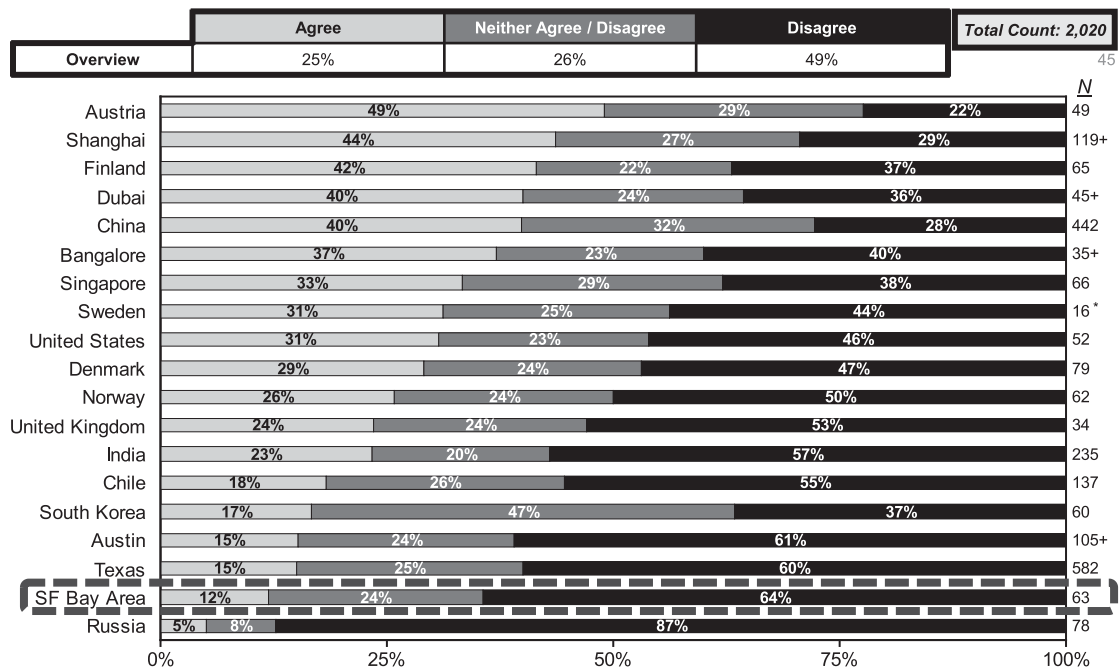
Government programs and services to support new and growing firms are seen to be lacking, however, particularly in comparison with global competitors.

Entrepreneurial Development Programs – Government Programs

Government programs provide high-quality services to new and growing firms:



Global Comparison



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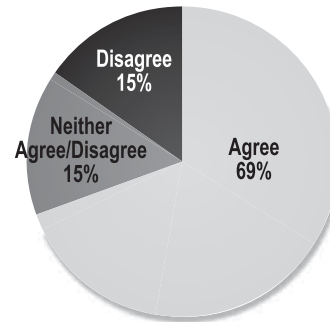
Source: Monitor Entrepreneur Benchmarking Survey, 2003–2011

The Bay Area benefits from strong entrepreneur support networks.

Entrepreneurial Development Programs – Networking Organizations

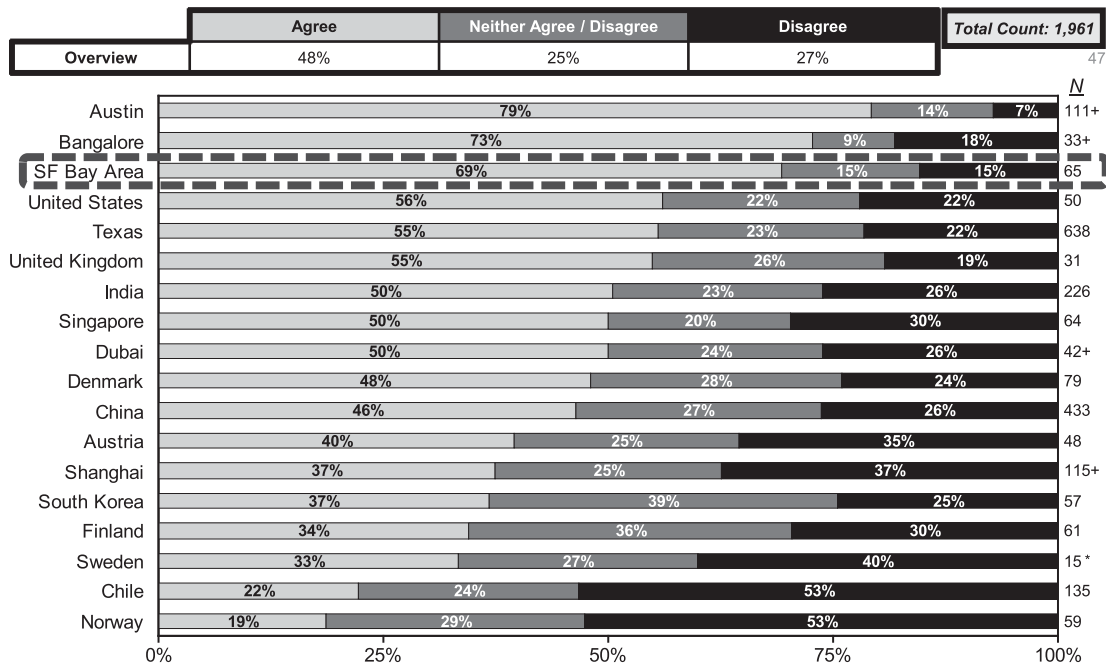
There are many informal business networks (e.g. angel investor groups and entrepreneur networks) to support new and growing firms:

Bay Area Results



Respondents Total Count: 65

Global Comparison



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Source: Monitor Entrepreneur Benchmarking Survey, 2003–2011

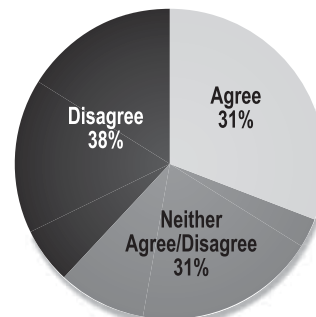
Universities and Government Research Centers

Technology transfer from universities and government research institutions is a key competitive asset. The Bay Area ranks highly in this category against all regions, including Europe and Asia. Accessing these institutions can, however, be a challenge for smaller firms.

Technology Commercialization – Affordability of Technology

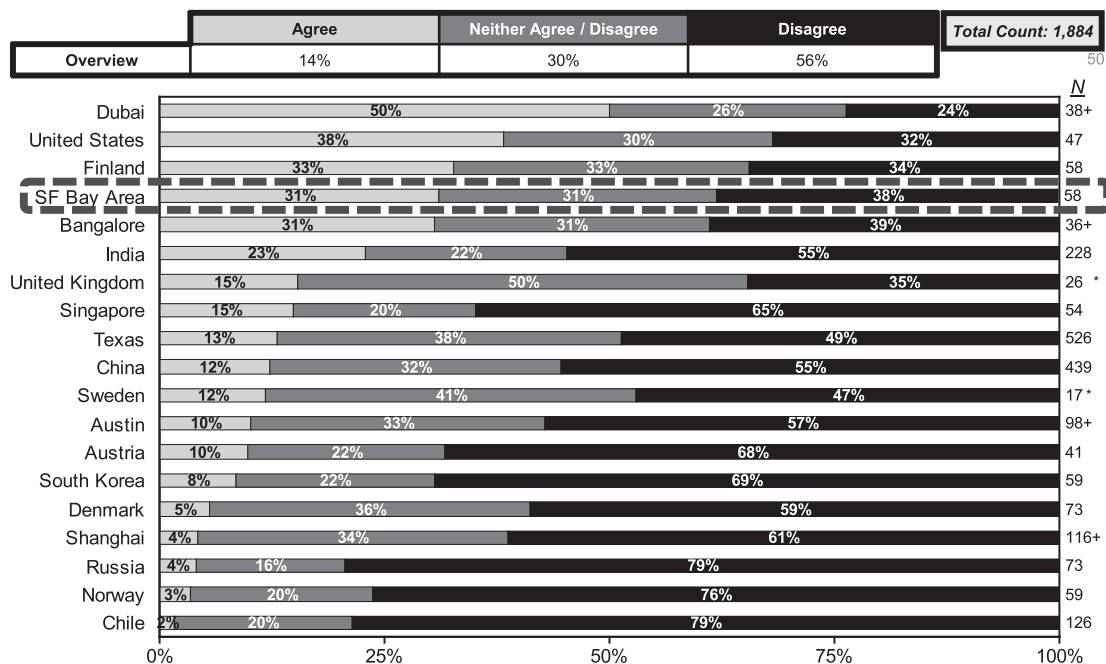
Technology transfer from government research centers is among the best in the world:

Bay Area Results



Respondents Total Count: 58

Global Comparison



*Respondent counts below 30 are too low to be statistically significant and are considered indicative results.

+Results represent a regional or city-level subset of a larger survey and are thus excluded from totals.

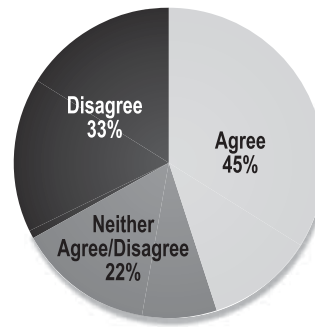
Due to rounding, percentages in some answer groups may not add up to exactly 100%.

Source: Monitor Entrepreneur Benchmarking Survey, 2003–2011

Technology Commercialization – Affordability of Technology

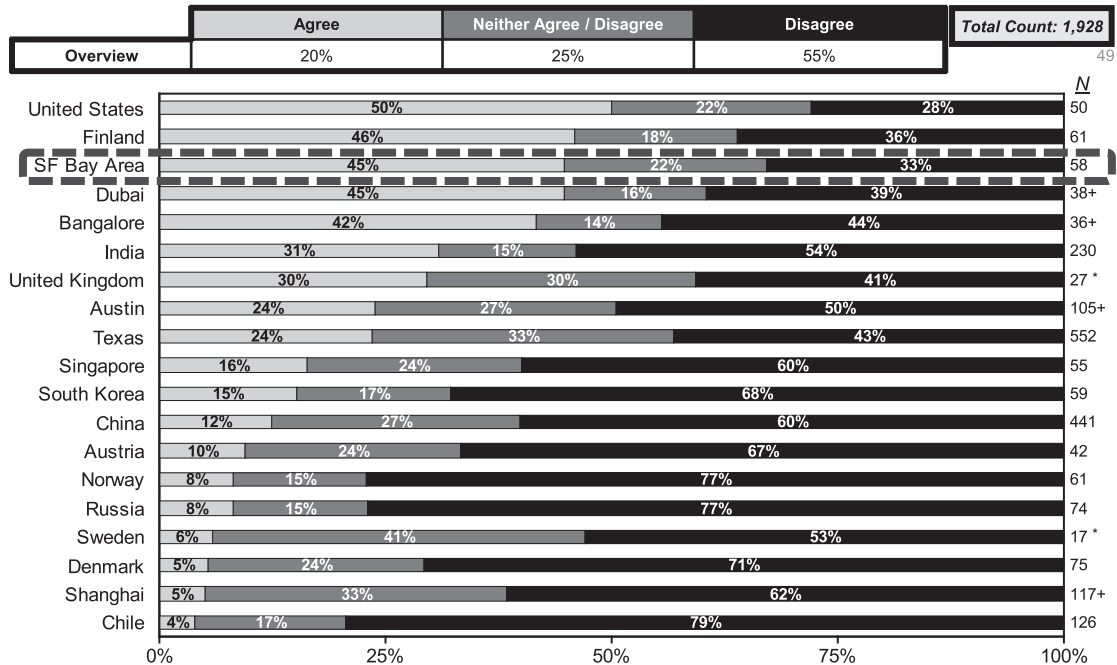
Technology transfer from universities is among the best in the world:

Bay Area Results



Respondents Total Count: 58

Global Comparison



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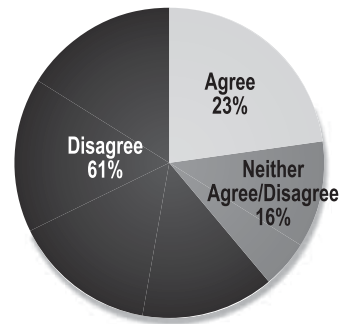
Due to rounding, percentages in some answer groups may not add up to exactly 100%.

Source: Monitor Entrepreneur Benchmarking Survey, 2003–2011

Technology Commercialization – Access to Technology

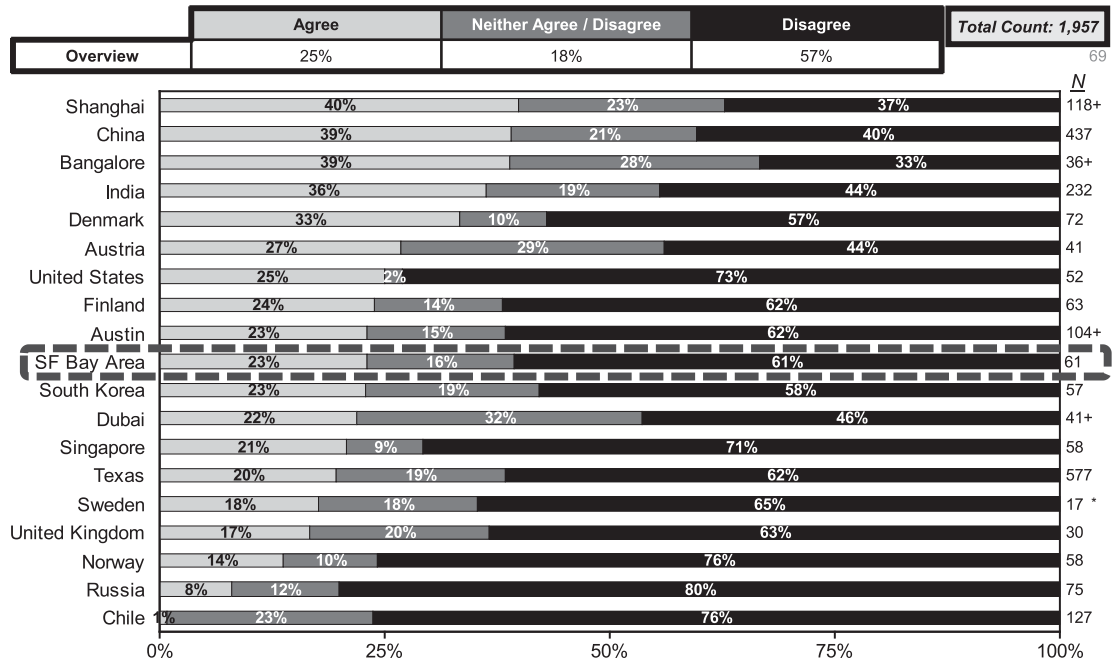
New and growing firms have just as much access to research and technologies as well-established firms:

Bay Area Results



Respondents Total Count: 61

Global Comparison



*Respondent counts below 30 are too low to be statistically significant and are considered indicative results.

+Results represent a regional or city-level subset of a larger survey and are thus excluded from totals.

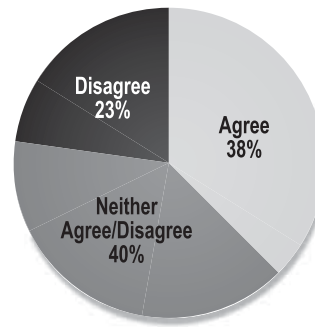
Due to rounding, percentages in some answer groups may not add up to exactly 100%.

Source: Monitor Entrepreneur Benchmarking Survey, 2003–2011

Technology Commercialization – Spin-Offs

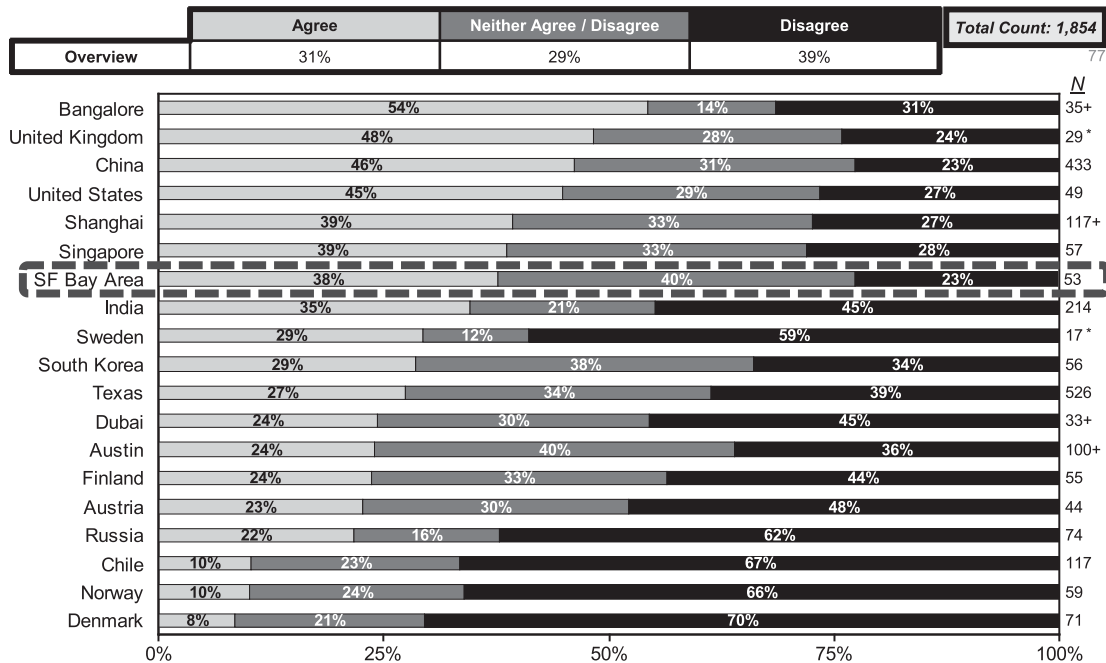
Colleges and universities regularly spin off firms from their R&D efforts:

Bay Area Results



Respondents Total Count: 53

Global Comparison



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+Results represent a regional or city-level subset of a larger survey and are thus excluded from totals.

Due to rounding, percentages in some answer groups may not add up to exactly 100%.

Source: Monitor Entrepreneur Benchmarking Survey, 2003–2011

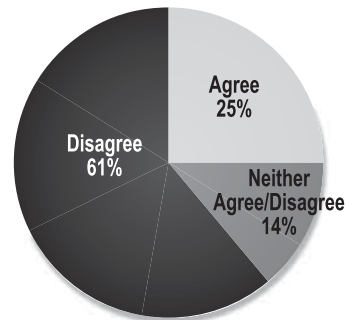
Training and Education

The teaching of entrepreneurial skills gets low marks everywhere. The Bay Area is seen as being behind Asia and ahead of Europe.

Training and Education – Skills Development

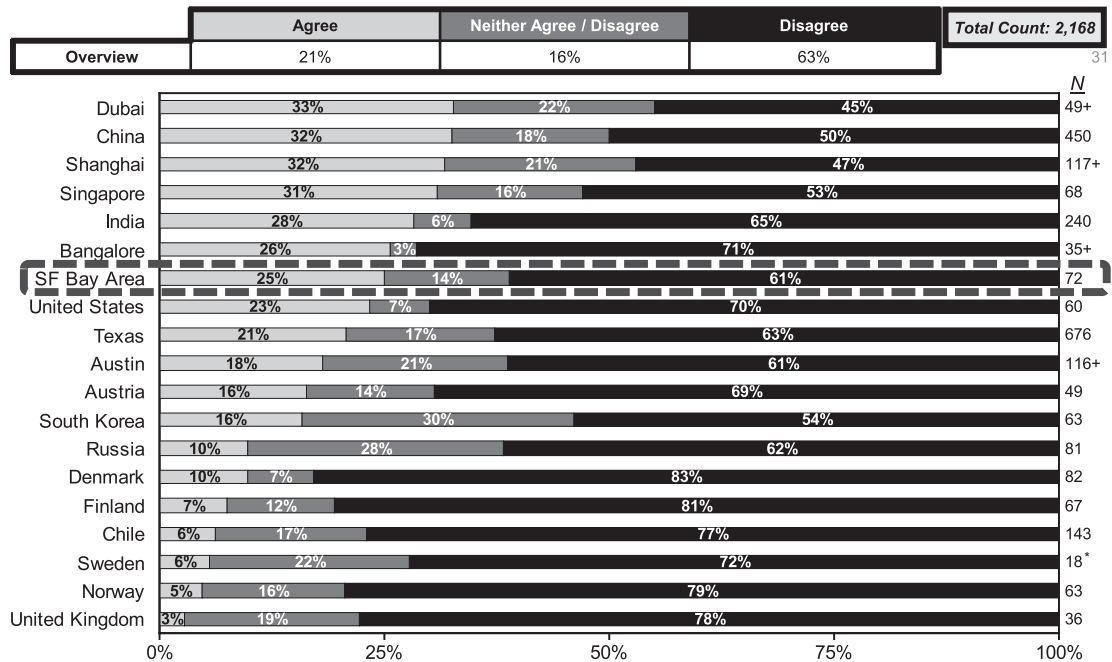
Colleges and universities offer a sufficient amount of teaching on entrepreneurship and new firm creation:

Bay Area Results



Respondents Total Count: 72

Global Comparison



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+Results represent a regional or city-level subset of a larger survey and are thus excluded from totals.

Due to rounding, percentages in some answer groups may not add up to exactly 100%.

Source: Monitor Entrepreneur Benchmarking Survey, 2003–2011

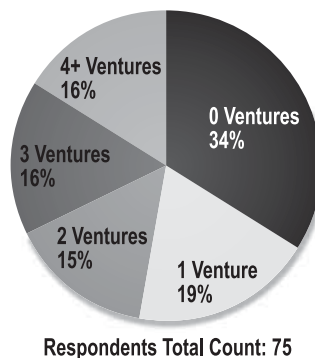
Bay Area / California – Specific Questions

In addition to questions that were uniform across U.S. and global locations, Bay Area entrepreneurs and their advisers were asked a series of questions that were specific to California and the Bay Area. These questions were designed to reflect the advanced nature of the region's entrepreneurial environment, and to address issues that may be of particular concern in the region and in California. The responses drew heavily on Santa Clara County (56), followed by San Mateo County (26) and Alameda County (17). The largest sector represented (24%) was information technology.

Entrepreneurial Culture

Thirty-four percent of respondents were first-time entrepreneurs or their advisers, 19% had been involved in one previous entrepreneurial venture, 31% had been involved in either two or three previous enterprises, and 16% had been involved in 4 or more. The fact that about half of the respondents were multiple or serial entrepreneurs reflects the Bay Area's highly developed entrepreneurial culture.

How many entrepreneurial ventures have you been involved in (*not* including your current organization)?



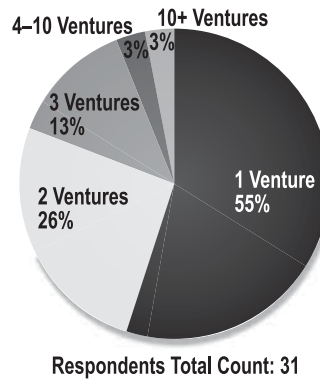
Nearly half of the respondents (48%) said that at least one of those earlier ventures was still operating, 28% said that two were still operating, and 19% said that three were still operating. This suggests that these entrepreneurs had generally been successful, launching multiple ventures to develop new ideas and opportunities.

Finance

Of the entities still operating, more than half of respondents (55%) indicated that one of their ventures had been acquired, 26% indicated that two had been acquired, and 13% said three had been acquired. This suggests that Bay Area entrepreneurs, and serial entrepreneurs in particular, are in most cases following strategies designed to create and sell value-producing

companies. It also points to the increased importance of M&A (mergers and acquisitions) as an exit strategy in a period when the number of initial public offerings (IPOs) is constrained.

How many of these entrepreneurial ventures were acquired?



Sixteen percent of the respondents had accessed bank credit, 16% had used their credit card as a source of finance, 24% had drawn on personal or family loans, 15% had received angel funding, and 20% had received venture funding. This suggests that while venture capital is important, most entrepreneurs initially rely on personal resources, bank loans and other small-scale sources of finance.

Has your firm accessed any of the following types of capital?

Type	Number	Percent
Personal/family loans	13	24%
Venture (traditional)	11	20%
Bank debt	9	16%
Credit card	9	16%
Angel seed capital	8	15%
Venture (corporate)	2	4%
Lease/receivables Finance	1	2%

Manufacturing

Nineteen percent of respondents planned to manufacture in the region or the state, while 81% did not. This may in part reflect the profile of the responding companies, which included a large proportion of information technology firms for which manufacturing may be less important. It may also reflect perceptions of the Bay Area and California with their higher costs as less competitive places in which to locate manufacturing.

Do you plan to establish manufacturing facilities in the region/state in the near future?

Yes	13	19%
No	57	81%
Total	70	100%

Government Support

Government Programs at the Federal Level

Federal government programs to support new and growing firms are widely seen as insufficient, from the standpoint of the range of programs, their quality or their accessibility. Twelve percent of respondents agreed with the proposition that a wide range of assistance was available, 65% disagreed and 23% had no view. Similar views were expressed (10%, 72%, and 18%) regarding the proposition that federal government programs were easily accessible. Twelve percent felt that government programs provide high quality services, 58% believed they did not, and 30% had no view. Eighteen percent believed that there were enough federal programs, 59% believed there were not enough federal programs and 23% had no view.

Government Programs at the State and Local Level

The question of whether state and local government programs provide sufficient support for entrepreneurs drew a similar response. Sixteen percent of respondents felt that a sufficient number of programs are available, 59% felt that they are not, and 25% had no view.

There are sufficient numbers of government programs to support new and growing firms.

Respondents Selecting the Option	Strongly Disagree	Disagree	Neither Disagree/ Agree	Agree	Strongly Agree	Do Not Know
Count	14	27	11	9	2	6
Percent of Total	20%	39%	16%	13%	3%	9%

Ten percent of respondents felt that state and local government provided high quality services for entrepreneurs, while 60% felt they did not, and 30% had no view.

Government programs provide high-quality services to new and growing firms.

Respondents Selecting the Option	Strongly Disagree	Disagree	Neither Disagree/ Agree	Agree	Strongly Agree	Do Not Know
Count	19	22	16	4	3	5
Percent of Total	28%	32%	23%	6%	4%	7%

Nine percent felt these programs and services were easily accessible, 64% felt they were not, and 27% had no view.

Government programs for new and growing firms are easy to access.

Respondents Selecting the Option	Strongly Disagree	Disagree	Neither Disagree/ Agree	Agree	Strongly Agree	Do Not Know
Count	22	22	14	4	2	5
Percent of Total	32%	32%	20%	6%	3%	7%

Nine percent of respondents believed that a wide range of assistance could be obtained from a single agency, 66% felt that it could not, and 25% had no view.

A wide range of government assistance for new and growing firms can be obtained through contact with a single agency.

Respondents Selecting the Option	Strongly Disagree	Disagree	Neither Disagree/ Agree	Agree	Strongly Agree	Do Not Know
Count	23	23	12	4	2	5
Percent of Total	33%	33%	17%	6%	3%	8%

The survey did not ask what kinds of programs and services entrepreneurs would find most useful, so it is difficult to identify the nature of these gaps from the responses, beyond the fact that there is a perceived lack of support for entrepreneurs across federal, state and local government.

Regulation

Government Regulations at the Federal Level

Federal government regulations were seen by a plurality of respondents as inhibiting the successful start of new firms and their ability to grow. Twenty-nine percent of respondents felt that regulation was not a problem, 43% felt that it was, and 28% had no view.

Government regulations do not interfere with the successful start of new and growing firms.

Respondents Selecting the Option	Strongly Disagree	Disagree	Neither Disagree/ Agree	Agree	Strongly Agree	Do Not Know
Count	9	17	14	16	1	3
Percent of Total	15%	28%	23%	27%	2%	5%

Views of the effect of regulation on employment were more evenly distributed: 28% felt that federal government labor regulations actively discourage the hiring of employees, 32% felt that they were not a factor and 40% had no view.

Government labor regulations actively discourage the hiring of employees.

Respondents Selecting the Option	Strongly Disagree	Disagree	Neither Disagree/ Agree	Agree	Strongly Agree	Do Not Know
Count	4	15	19	9	8	5
Percent of Total	7%	25%	32%	15%	13%	8%

Government Regulations at the State/Local Level

Responses were similar regarding regulation at the state and local levels. Thirty-two percent of respondents felt that state and local regulation did not interfere with their ability to start and grow a firm, 40% felt that it did, and 28% had no view.

Government regulations do not interfere with the successful start of new and growing firms.

Respondents Selecting the Option	Strongly Disagree	Disagree	Neither Disagree/ Agree	Agree	Strongly Agree	Do Not Know
Count	5	19	15	15	4	2
Percent of Total	8%	32%	25%	25%	7%	3%

Thirty percent felt that state and local regulations actively discourage the hiring of new employees, 30% felt that they do not and 40% had no view.

Government labor regulations actively discourage the hiring of employees.

Respondents Selecting the Option	Strongly Disagree	Disagree	Neither Disagree/ Agree	Agree	Strongly Agree	Do Not Know
Count	4	14	21	9	9	3
Percent of Total	7%	23%	35%	15%	15%	5%

Permits

Government Impact at the State and Local Level

A plurality of respondents (45%) felt that it was difficult for new and growing firms to obtain state and local permits, compared to 20% who felt that access to permits was easy and 35% who had no view.

Government makes it easy for new and growing firms to get any required permits and licenses.

Respondents Selecting the Option	Strongly Disagree	Disagree	Neither Disagree/ Agree	Agree	Strongly Agree	Do Not Know
Count	7	20	20	10	2	1
Percent of Total	12%	33%	33%	17%	3%	2%

There was no dominant view on whether the time required to start a business, including getting necessary approvals, was acceptable: 37% felt that it was, 35% said that it wasn't, and 28% did not express a view.

The length of time required to start a new business (including getting all necessary approvals etc) is acceptable.

Respondents Selecting the Option	Strongly Disagree	Disagree	Neither Disagree/ Agree	Agree	Strongly Agree	Do Not Know
Count	9	12	15	18	4	2
Percent of Total	15%	20%	25%	30%	7%	3%

There was also no strong view regarding whether the number of permits and licenses required to start a business was excessive: 32% felt that it was, 33% said that it wasn't, and 35% didn't express a view.

The number of licenses and permits required for starting new businesses is excessive.

Respondents Selecting the Option	Strongly Disagree	Disagree	Neither Disagree/ Agree	Agree	Strongly Agree	Do Not Know
Count	6	14	20	15	4	1
Percent of Total	10%	23%	33%	25%	7%	2%

Motivation

Asked why they had chosen to become entrepreneurs, the respondents gave a range of responses, focused on themes of independence, control, creativity and problem-solving.

Why did you choose to be an entrepreneur?

Because the act of creation is fundamental to my existence. Because I wanted to learn about how business works and shapes the world so that I could make the world a better place.

Born to be.

Be my own boss.

Change the world.

Control and personal accountability/ownership.

Fill a need, solve a problem, create value and wealth.

Freedom.

Freedom to set my own goals.

I had an ideal idea that was an immediate need in my industry. Not only were my services needed, they were out of reach. My market is a growing billion dollar industry. It's one of the top in taxes that supports this state alone.

I love to be independent.

I saw an opportunity for an enjoyable and profitable business where others did not.

Independence, both personal and financial, and fun.

Individualist streak; workaholism; desire for "academic freedom"; desire to work on the important problems facing mankind.

It is more fulfilling to work for yourself and make a difference to the world.

Opportunity.

The adventure. Desire to build a company that has good products and is good for people.

The opportunity and excitement to change the world for the better.

The opportunity to solve a unique problem.

To be able to set my own schedule.

To chart my own destiny. To achieve higher compensation and greater wealth than I would otherwise be able to by working for an established company.

To do my work my way.

To feed creative hunger from concept to product release gives immense satisfaction.

Vision of products helping millions of people.

Wanted to be my own boss and make my own decisions about how to grow the business.

Wanted to be my own boss, and found a niche I had expertise in.

Conclusions

As a high-end economy, the Bay Area competes globally based on its strength in innovation and entrepreneurship. The survey provided unique insights into the factors that make the Bay Area a strong environment for entrepreneur-led start-ups. It also provided insight into the issues that concern entrepreneurs and into the overall business climate in the region, from the perspective of leaders and companies that could produce the next wave of growth and job creation.

The availability of data from similar surveys conducted in other locations around the world enabled the Economic Institute and its partners to assess how the region fares against key partners and competitors. It is important to note, however, that because most of the other surveys were conducted in years when the global economy was strong (2003–2007) and the Bay Area survey was conducted in 2010–11 in the aftermath of a severe recession, direct comparisons should be made with caution. Each survey was conducted independently, and is a snapshot of entrepreneur perceptions in that place at that point in time. It is likely that if all the surveys had been conducted simultaneously the Bay Area's positive results, while strong, would be even stronger. The survey closest in time to the Bay Area's is from Austin, which also showed a positive entrepreneurial environment.

With that caveat, there are some important take-aways that derive both directly from the data and from insights offered by the team of advisors and organizations that supported the survey process.

Comparisons to Texas

With growing concerns about cost and the possible out-migration of business, California and the Bay Area are frequently contrasted with Texas. Austin, like the Bay Area, is attractive to talent, has a vibrant entrepreneurial community, and draws on a strong university system. Austin also benefits from lower taxes and good business support systems. Its economy, however, is smaller than the Bay Area's, and its primary focus on IT contrasts with the diversity and depth of the Bay Area's technology base. That diversity, as well as the region's strength in sectors ranging from consumer Internet to biotech, is a Bay Area advantage.

Comparisons to Asia

Asia, particularly in China and India, is seeing a surge in entrepreneurial activity. This is being fueled by more open economic systems, growing economic opportunity, and to some degree by highly educated entrepreneurs returning from the United States—many from Silicon Valley. As a relatively recent phenomenon following a long period of stagnation, these changes are producing new energy and optimism. Whether these rising expectations are ultimately met is a different question, as business conditions in countries such as China and

India come with their own challenges. In contrast to the United States and California, many Asian entrepreneurs benefit from active government support of manufacturing and R&D facilities, expedited services, and significant tax incentives.

The Bay Area – A Successful Entrepreneurial System

Compared to Asia, the Bay Area's entrepreneurial environment is relatively mature, having gone through several cycles of growth and recession, with all the perspective that brings. The most recent recession has taken a toll, tempering expectations. This contrasts with high expectations in Asia. On the other hand, the mix of elements that support entrepreneurial activity is uniquely rich in the Bay Area, and the region's deep reservoir of entrepreneurial experience is itself an asset. Compared to Asia, Bay Area start-ups generally show a high level of technology innovation and for many young overseas companies, a presence in the Bay Area is seen as essential to long-term success. This is particularly the case for IT.

Access to a large venture capital community is a particular advantage for young Bay Area companies. Many venture investors prefer to invest locally, and while it's not a standard practice, some require the companies they invest in to relocate to the region. Many young companies, including overseas enterprises, locate in the Bay Area in order to more readily access venture investment.

The region's diverse workforce is another core asset. Location in the Bay Area allows access to a large set of skills and experience that is hard to find elsewhere. This is a community that understands how to build start-up technology companies from the starting gate to success, at high velocity.

Entrepreneurship runs deep in the region's culture and is reflected in positive attitudes toward entrepreneurs, even in an era of low economic growth. While most concentrated in Silicon Valley, entrepreneurial activity is spread throughout the Bay Area. The conditions supporting entrepreneurial activity and its industry focus vary significantly from community to community (e.g., Silicon Valley, San Francisco, or the Tri-Valley area of Alameda County).

The presence of research universities and laboratories is important to technology-based start-ups. Internet and social-networking companies may be less dependent on technology transfer from universities and labs than firms in research-heavy sectors such as biotech, though many are founded by graduates of those institutions. These firms often operate with lower costs and require lower levels of investment than biotech or cleantech companies (such as biofuels or solar) that require large amounts of capital in both their research and production phases.

As a global-scale marketplace for ideas, the Bay Area is attractive to both young and established companies wanting to participate in the dynamic flow of business and technology thinking that the region generates—something that is difficult to do remotely. This idea flow,

which helps companies establish themselves at the cutting edge of their industries, is enabled by a highly permeable business culture that permits relatively fluid movement of entrepreneurs in and out of established businesses and research institutions, and provides layered opportunities for formal and informal networking.

The growth of competitive companies also depends on supportive business ecosystems. The Bay Area ranks at the top for its entrepreneurial ecosystem—its network of suppliers, sub-contractors, specialized service providers, incubators and other formal and informal networks that support and define regional business clusters. Large companies also play a role, anchoring component and service suppliers, and generating flows of entrepreneurs who break away to form their own start-ups. The depth and diversity of these support systems is a Bay Area strength.

Cost of Living

The region's high cost of living can be a factor when recruiting employees to the Bay Area. While salary levels can compensate, the cost of housing is a particular deterrent.

Taxation and Regulation

While not the highest concern of entrepreneurs, who may initially have only a few employees, state and local tax and regulatory policies impact their decisions when they start to grow. The State of California's sales tax on the purchase of manufacturing equipment, for example, contrasts with the tax exemptions on capital equipment purchases offered by most states and with the capital incentives offered by countries such as Germany. This can influence companies' decisions on where to grow as they shift from start-up mode into production.

Employment taxes can also influence where companies decide to locate and grow. For example, exemption from payroll tax has been instrumental in supporting biotech growth in San Francisco and in the recent decision by Twitter to remain and expand in San Francisco when it needed more space.

A 2011 survey by the National Federation of Independent Business (California) and the California Manufacturers and Technology Association found that the cost of insurance (including workers compensation), and the possibility that future regulations will add excessive costs, are the largest factors discouraging businesses from adding employees or making new investments in the state. These factors can outweigh more positive business drivers (such as access to customers and suppliers) when companies are making investment or hiring decisions.

While that statewide survey covered businesses across-the-board, uncertainty regarding cost is a concern shared by Bay Area entrepreneurs. Changing or unexpected costs, often related to regulatory processes, impact the bottom line. Reducing those costs and increasing their

predictability can make a difference. Simplified or one-stop permitting by cities, counties and state regulatory agencies would help. At the state level, the Office of the Small Business Advocate could be empowered to play a stronger role.

Finance

Stock options are an important financial tool for entrepreneurs in start-up mode who anticipate IPOs and need to conserve cash. For company founders and their employees, they are also a widely accepted vehicle for incentivizing the creation of wealth and rewarding risk.

While access to venture and other equity capital is recovering, access to debt capital (bank lending) is still a major constraint. Weak returns on venture investment in the last decade, the shift of venture firms toward larger, later-stage investments, and the growing importance of M&A all raise issues regarding the role of venture capital as a long-term source of support for start-ups and early-stage companies. With venture investment more difficult to access by very young firms and bank lending limited in the wake of the recession, many entrepreneurs still rely heavily on non-venture resources such as credit card debt and personal and family loans for their starting capital. Setbacks in the housing market have also constrained entrepreneurs' ability to use home equity as a funding vehicle. This general lack of finance also affects later-stage companies.

Access to expansion finance—as young companies grow and start production—is a particular challenge, with states such as Texas advertising their willingness to help companies find the finance they need. If California and the Bay Area want to capture a larger share of the employment generated by successful start-ups, this should be a focus. Expansion finance complements the other prerequisite for company formation and expansion—creating financial incentives to grow and expand locally by lowering the cost of capital (e.g., facilitating credit) and the cost of operating in the region.

Entrepreneurs Talk About the Bay Area

As case studies, the Economic Institute asked seven Bay Area entrepreneurs—in cleantech, biotech, IT and online services—to share their experiences.



Woody Gibson, CEO of San Francisco-based Smart Wire Grid, is on his 15th start-up since 1977. The first, International Technologies, became the country's largest environmental company, growing to 2,000 employees and a \$1.5 billion valuation in five years. His most recent, Zynergy Power, went public in London in 2006, becoming one of the world's top companies in superconducting. Headquartered in Burlingame, Zynergy reached a market capitalization of \$220 million in 2011, with 20 employees in the Bay Area and 120 overseas.

Why did Gibson start so many companies here? For one thing, he lives here—a factor common to many start-up founders, who often come from and enjoy living in the Bay Area. Access to venture capital is a plus, though start-up capital can also be found in other places. The region's skilled and highly educated and diverse workforce is another plus.

Gibson points out, however, that growing a company in the Bay Area is another story. High housing costs make it difficult for people to move here. California's personal income tax is high, the state's inventory tax reduces the incentive to have a warehouse, and California's tax on the purchase of manufacturing equipment discourages production. Permitting can also be difficult. Other states offer one-stop permitting and support. For these reasons, Smart Wire Grid plans to locate its production in Carson City, Nevada, with a facility that will initially employ 50 workers and eventually grow to 100.



Richard Preston, CEO of Charisela Technologies, has led four start-ups, including companies in IT, software and life science. Charisela, a Menlo Park biotech company that produces reagents, has been in business 18 months, with two full time employees and a number of consultants. As products come through the pipeline, the firm expects to grow to 25–30 employees over the next two years, with production in Menlo Park.

Preston says that “for starting a company, this is the best place in the world.” What’s been most important to the success of this and other start-ups he’s managed? First is the region’s industry cluster—the infrastructure of specialized suppliers that both young and more mature companies depend on. Second is its workforce and its deep base of scientists and technicians (“you can find anything here”). Access to venture and angel investors the third big factor. After having a good idea, he cites finance as being the most critical issue for entrepreneurs. Government policy is less important in a company’s early stages, he says, but can be a bigger factor as companies start to grow.



Jon Viner, CEO of Chirpme.com, may be typical of a young generation of entrepreneurs in the social media space. Viner moved to the Bay Area in 2010 and shares an apartment in Palo Alto with three other Chirpme.com founders, all in their 20s. His first start-up, in Connecticut, pioneered sports games on Facebook, where it was the lead provider in the vertical for two years, generating \$2 million in revenue. His new company is an online dating service keyed to the shared experiences of participants. Chirpme.com has Bay Area investors and six employees currently, and expects to grow to 25–75 employees within a year.

Viner says his biggest mistake was not bringing his first company to the Bay Area. “There’s a stronger ecosystem here than in the East. In the Bay Area you can easily meet people and set up meetings. There are lots of advisers and lots of entrepreneurs who have been successful and are mentoring others. It’s an ecosystem like no other.” Asked about problems, he hears that a common complaint among both large and small companies is the difficulty finding enough engineering talent—but so far Chirpme.com has all the resumes it needs.



Kumar Malavalli moved to Silicon Valley from Canada, where he was a senior executive with Hewlett Packard, with the express goal of founding Brocade Networks. He couldn’t find funding

for his idea there, and it was hard to find an audience that understood its potential. The Bay Area venture capital firm Crosspoint Ventures offered seed funding, and his co-founder was already in the area working for Sun. Brocade was launched in a strip mall in Sunnyvale in 1995. By the time Malavalli left his leadership position in 2002, the firm had a market capitalization of \$10 billion and more than 600 employees.

Malavalli stepped down that year to found his second company, Inmage Systems, a software firm that focuses on data protection. Privately held, its main investors are Brocade, Intel Capital, venture firm Hummer Winblad, and Malavalli himself. It currently has 110 employees, with architects in the Bay Area and a team executing in India. In addition to Inmage, where he serves as chairman and CEO, Malavalli is an active investor in two other Bay Area companies.

Asked why his companies started in the Bay Area, he says he couldn't have done these things—become a serial entrepreneur in multiple companies and create wealth for himself and his employees—anywhere else in the world. Access to both venture capital and angel investors is important, particularly for seed and early stage companies. So is access to people with the complementary expertise needed to pursue business ventures: “When you go to a function people talk about starting companies. It's conducive to thinking out of the box.”

Asked about big negatives for start-ups in the region, he doesn't see them. Engineers and other qualified workers are available. Many are here, but “the whole world is available for hire.” The one concern he notes is a trend in investment patterns: when Silicon Valley first took off, wealth was created primarily based on new technologies. More recently, the trend is to start companies for a quick return, in areas such as social networking. While this may be good for the founders and employees, and venture investors are aligned because it offers a quicker return, it may not deliver the returns for the economy and the community that come from research-based technology products.



Matthew MacInnis, a native of Canada and founder and CEO of Inkling.com, was working in the education division of Apple when he concluded that current textbooks don't provide a compelling learning experience, whether in print or PDF. The answer was Inkling.com, a publishing platform for learning content. Working with major publishing houses such as McGraw Hill, Wiley and Pearson, the company develops interactive digital textbooks (think chemistry texts with 3D molecules) that MacInnis believes will change the industry. With 70 employees today, the company is expected to grow to several hundred in the next few years.

Inkling started in San Francisco because of the access it provided not just to engineers, but to design talent. Many publishers also have their West Coast offices in San Francisco, which offers a large pool of editorial talent. Another compelling reason to start in the Bay Area was access to investors: “I wouldn't have considered starting a company anywhere else—for access to venture capital, angel investors, advisers or other entrepreneurs. The eco-system here is incomparable.”

Current investors in Inkling.com include Sequoia Capital, Tenaya Capital, Jafco Ventures, Pearson Education, and angel investors Mitch Kapur, Aydin Senkut and Ram Shriram.

Asked what needs fixing, MacInnis pauses and settles on two issues. One is San Francisco's 1.5% tax on stock options—an employee benefit that is charged to the company. The stock options tax is part of San Francisco's payroll tax and is the only tax of its kind levied in the region or the country. While the company isn't affected now, it will be in the future. For that reason, Inkling.com expects to eventually leave San Francisco—probably for a nearby city in San Mateo County.

The other issue is permits. If you need to build out physical space, the process of getting permits and dealing with inspectors can cause long delays. “Insanely inefficient”, the system drives up costs, which draws down the start-up funds coming from investors. Counterparts on the Peninsula, he notes, don’t have the same problem.



Alexis Ringwald developed a passion for energy issues as a student at Yale, and later as a Fulbright Scholar studying clean tech in India. Returning to the Bay Area, in 2008 she co-founded Valence Energy, a company producing energy analytics and management software for commercial buildings. Buildings currently consume 70% of U.S. electricity, and she saw the opportunity to make an impact by focusing on energy efficiency. The initial investment came through friends and family, and an engineering staff was put together from a team at Santa Clara University that had recently won the Solar Decathlon.

In its first two years, the company signed up clients ranging from Cisco Systems to the Los Gatos School District. In 2010 it was acquired by a leading Bay Area company, Serious Energy, that also develops energy management systems for buildings. Serious Energy’s most visible current project is the energy retrofit of the Empire State Building.

Valence started in the Bay Area in part because its co-founder was here, but also because of the region’s pool of engineering talent and its entrepreneurial climate (“Everyone’s down the street—the ecosystem was critical to our success.”) Another factor was its openness to new ideas: “Customers here are more willing to try new products and are used to start-ups approaching them with new ideas. They look for innovation and don’t just buy from the big players.”



Weili Dai, co-founder of Santa Clara-based Marvell Technology Group, exemplifies the contributions to the regional economy made by immigrants and the key role played by the region’s universities in attracting and developing top global talent. One of the world’s most successful female entrepreneurs, Dai was born in Shanghai and came to the Bay Area in 1979 for high school at the age of 17. She and her future husband, Marvell co-founder Sehat Sutardja, met several years later while studying computer science at UC Berkeley. Both were attracted to the freedom of owning their own company, and Marvell was subsequently created around a kitchen table by Dai, Sutardja and his brother Pantas, who also studied at Berkeley. Sehat and Pantas Suardja were born in Indonesia. Founded in 1995, the company went public in 2000, and today is the world’s third largest fabless semiconductor company. With 5,700 employees and worldwide operations, Marvell ships over one billion chips a year, and has a 9 billion dollar market cap.

Dai credits her Berkeley education and the quality of Marvell’s workforce as contributors to her success. In 2009, she and her husband donated \$20 million to the university’s nano-fabrication laboratory. In recognition of that contribution, Sutardja Dai Hall now houses CITRIS—the Center for Information Technology in Service to Society—one of the University of California’s four ground-breaking California Institutes for Science and Innovation.



Policy Approaches

Support Systems

State and local governments should focus more on the local conditions required to help entrepreneurs succeed.

The best strategies to encourage and support entrepreneurs focus on reducing “friction” in the business environment—policies and regulations (e.g., paperwork, immigration, patents) that unnecessarily inhibit the ability to take an idea from the concept stage into commercial markets.

The 21st century economic development model developed by the Bay Area Council Economic Institute for the U.S. Department of Labor, *The Innovation-Driven Economic Development Model: A Practical Guide for the Regional Innovation Broker* (www.bayareaeconomy.org/innovation), found that to be effective, 21st century economic development strategies should focus more on promoting innovation and the formation of new locally-rooted companies than on strategies designed to entice larger companies to relocate from other jurisdictions. Entrepreneurs and the entrepreneurial process are central to such strategies. State and local governments should therefore focus more on the conditions required to help their own entrepreneurs succeed.

Once created, many firms fail in their first two years. Providing an environment that maximizes the chances that the best firms will succeed can have important impacts. Dedicated support systems to help entrepreneurs succeed are an area where state and local governments can play a stronger role. Entrepreneur-focused support systems, such as incubators, accelerators, shared work spaces, start-up/boot camps and executive education programs can fill a need, particularly in parts of the region that are not as richly connected as Silicon Valley. Easily accessible training programs in business skills can be offered through universities, community colleges, private educational institutions, university-industry partnerships and cities.

Physical space is often a challenge for start-ups, since the corporate real estate market is designed for tenants that are typically much larger. Local government can zone low-rent warehouse districts to encourage start-up density, possibly adding tax, payroll or service benefits. Incubation or accelerator facilities with options for small spaces and flexible rents fill a need, particularly when linked to research institutions such as universities or federal laboratories. Two good examples are i-Gate, an innovation hub for clean transportation technology supported by Sandia and Lawrence Berkeley National Laboratories and the City of Livermore, and the City of Berkeley’s Skydeck Innovation Center, a technology incubator being developed with support from UC Berkeley and Lawrence Berkeley National Laboratory. San Francisco’s Greenstart accelerator, the San Jose Biocenter, and San Jose’s Environmental Business Cluster are other examples of city-sponsored incubators with a dedicated industry focus.

Cities and other jurisdictions can also leverage their purchasing power by strategically directing some procurement toward young companies with innovative products. San Jose is currently doing this with cleantech. By acting as first adopters and providing local markets, cities can accelerate the commercialization process, helping to bridge the gap between research and production. This later stage in a company's growth, after the start-up phase, is particularly important to employment, since it is in the region's interest to see companies that have been created in the Bay Area also expand here and add to local payrolls. In the end, cities, counties and the state should aim to create an economic environment where expanding locally is a rational choice for business leaders to make.

Streamlined government services can also make a difference. Even where support services exist, they may not be well known or easily accessible. One-stop service centers can address this at both the state and local levels. Sunnyvale is recognized as a leader in this area. It was the first city in California to open a one-stop facility in the 1980s, and is still considered ahead of the curve. Ninety percent of initial plan checks can be done over-the-counter on the same day, with all the senior staff and regulators necessary to approve permits present on-site—saving weeks of time. Final plan review in most cases can also be done over the counter. Inspections can be scheduled online, with most inspections performed the next day, and companies with special needs receive expedited service. Moving as many permitting services as possible online will also benefit entrepreneurs, who are as likely (or more likely) to find a one-stop permitting center by searching the Internet as by walking into a physical office.

Permits are a particular problem for the cleantech sector, where competitive pricing with conventional energy sources is a challenge. An inordinate amount of the cost of installing renewable energy systems such as solar is related to permitting and regulatory costs, which are inconsistent and duplicative from jurisdiction to jurisdiction. Inconsistent codes and processes also inhibit the ability of the industry to deploy technologies at scale. According to a 2011 report by AECOM, local government permitting accounts for 5% to 20% of the total installation cost of a residential solar project in California, or approximately \$2,500 per installation. The study estimates that if local jurisdictions put into place a streamlined and uniform permitting system, total permitting costs could fall by 75%, to approximately \$600 per installation. A uniform set of standards and application processes should therefore be developed for the region. On a small scale, Santa Clara County provides an example for how this can be done. The problem is multiplied when start-ups, with limited manpower, are trying to do business in multiple regions. This also suggests the need for a California standard.

World class broadband communication infrastructure—an area where the Bay Area lags—is also important for young companies with limited resources, and for high-bandwidth collaboration services at firms of all sizes.

International business services will be increasingly important as time goes on. Markets are growing faster in much of the world than in the U.S., and most of the world's consumers are now outside the United States. Venture capital firms are increasingly asking the start-ups they support to have a global strategy—something that in the past would have come much later in a firm's development. For many firms, access to global resources and global markets will therefore be critical to long-term success, and some will need specialized support. The State of California terminated its international programs in 2003, however, and many non-profit services have also been cut back. Dedicated government and non-profit services that help smaller companies engage overseas partners and resources, penetrate foreign markets and navigate overseas regulatory processes, can help position them for success.

Finance

Help bridge gaps in early-stage finance through public-private partnerships.

More than ever, access to working capital is a challenge for entrepreneurs. In the aftermath of the last recession, bank lending is tight, home equity lines of credit are scarce, and venture capital firms are focusing on later-stage investments. As already noted, Texas facilitates access to credit. Some states are stepping into the gap by creating seed capital and revolving debt funds to support emerging businesses. For example, Ohio's Third Frontier Program includes a Pre-Seed Fund Capitalization Program that invests in professionally-managed funds that support early-stage companies. Pennsylvania's Ben Franklin Technology Program invests directly in emerging companies as well as select venture funds. Michigan, New York and Maryland also support investment in pre-seed and seed stage companies. While none of these states enjoys the highly-developed venture capital climate of the Bay Area, and state intervention here is arguably less necessary, today's constrained conditions for both debt and investment capital suggest that a more active state role could be useful. Any state approach should seek to leverage either federal or private resources through public-private partnerships. For example, in the past the California Trade and Commerce Agency's Export Finance Office ran a highly-successful Working Capital Loan Guarantee Program, which provided state guarantees to private banks for loans to support the production of goods contracted for export.

Immigration

Expedited access to green cards for immigrant entrepreneurs can help to attract and retain entrepreneurial talent.

More than half of Silicon Valley's science and technology start-ups have been founded by immigrants, primarily from India and China. Many recent immigrants, however, are leaving for entrepreneurial opportunities in their home countries, a situation aggravated by the difficulty of securing green cards (permanent residence in the U.S.). Expedited access to green cards for immigrant entrepreneurs and foreign graduates with advanced degrees from U.S.

universities would help retain this talent. Two specific pieces of federal legislation that target this issue are the STAPLE Act (H.R. 1791/111th Congress) which would create a new class of visas for highly-skilled, foreign-born PhD holders in science, technology, engineering and mathematics, for work in the U.S. in their field of expertise; and the Kerry-Lugar Start-Up Visa Act (H.R. 4259/S 3029) which would incentivize foreign-born entrepreneurs and investors to start companies and hire workers in the U.S.

Innovation Policy

Businesses with venture or angel backing should be eligible for federal SBIR grants; the federal Patent and Trademark Office should be fully funded and should open an office in Silicon Valley.

The Federal Government's Small Business Administration (SBA) plays an important role for many new technology companies through its Small Business Innovation Research (SBIR) program. Applicants for SBIR grants that have 50% or more ownership by angel or venture investors are excluded from consideration—a provision that puts many promising firms out of contention. Changing this would particularly benefit young Bay Area companies which, more than in other regions, draw on venture investment. The SBIR review process—which can take 1–2 years—should also be accelerated. This is important, since the first 1–2 years in a new firm's life are often critical.

Patents are another issue. A national debate is underway regarding how patents are qualified—are they appropriately targeted or overly broad—and whether the design of the current system on balance enables or inhibits entrepreneurial activity. This is a particular issue for software. While addressing this issue goes beyond the scope of this report, several operational issues can be addressed immediately. Patent applications are currently backed up as much as three years, with one million applications pending. This can inhibit investment in new companies and slow the speed at which their products reach the market. Patent fees are also being diverted by Congress for other uses, leaving the Patent and Trademark Office (PTO) underfunded. The PTO should be fully funded and its funding sources protected. The America Invents Act, passed by Congress and signed by the president in September 2011, should help address this concern.

The Act also provides for the establishment of three PTO satellite offices. One of those offices should be in Silicon Valley, the nation's leading center for patent generation. From 2006–2010, the San Jose–Sunnyvale–Santa Clara Metropolitan Statistical Area generated 40,446 patents, out of a national total of 417,150. By comparison, the next largest region was New York–Long Island–Northern New Jersey with 24,614. The San Francisco–Oakland MSA generated 24,446.

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The Bay Area Council Economic Institute is a public-private partnership of business, labor, government and higher education that works to support the economic vitality and competitiveness of California and the Bay Area. Its work builds on the twenty-year record of fact-based economic analysis and policy leadership of the Bay Area Economic Forum, which merged with the Bay Area Council in January 2008. The Association of Bay Area Governments is a founder and key institutional partner. The Economic Institute also supports and manages the Bay Area Science and Innovation Consortium (BASIC), a partnership of Northern California's leading scientific research institutions and laboratories. Through its economic and policy research and partnerships, the Economic Institute addresses major issues impacting the competitiveness, economic development and quality of life of the region and the state, including infrastructure, globalization, science and technology, and governance. Its Board of Trustees, which oversees the development of its products and initiatives, is composed of leaders representing business, labor, government, higher education, science and technology, and philanthropy.

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