



SMALL BUSINESSES

WORKFORCE NEEDS OF SMALL
BUSINESSES IN SAN DIEGO



November 2015



Acknowledgements

This study is a product of a regional collaboration between the San Diego and Imperial Counties (SDIC) Regional Consortium of Community Colleges representing the San Diego and Imperial Counties Community Colleges Association (SDICCCA), the Regional Center of Excellence for Labor Market Research (COE) and the San Diego Workforce Partnership (SDWP).

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We would also like to thank the 347 small businesses in San Diego region who took the time to complete the survey. This information is critically important to education institutions and workforce development agencies as we develop and strengthen our programs to support the needs of small businesses in the region.

About Us

Centers of Excellence for Labor Market Research

The COEs deliver regional workforce research and technical expertise to California's community colleges for program decision making and resource development. This information has proven valuable to colleges in beginning, revising or updating economic development and Career Technical Education (CTE) programs, strengthening grant applications, assisting in the accreditation process, and in supporting strategic planning efforts. The COE Initiative is funded by the Chancellor's Office, California Community Colleges, Economic and Workforce Development Program. The Centers aspire to be the leading source of regional economic and workforce information and insight for California's community colleges. San Diego area colleges are served by the SDIC Region COE (grant agreement #14-305-005). More information about the COE is available at www.coeccc.net.

San Diego Workforce Partnership

SDWP is the local Workforce Development Board, designated by the City and County of San Diego and governed by a community-led, business-majority board. SDWP's mission is to empower job seekers to meet the current and future workforce needs of employers in San Diego County. SDWP accomplishes this by aligning businesses, educators, labor organizations, public agencies and community-based organizations to invest funding and braid resources in programs that provide comprehensive job seeker and employer services. At the nexus where industry, education and economic development systems meet, SDWP facilitates discussion on how the three can work together to create a strong regional workforce. SDWP identifies local skills gaps and stewards funding towards program design and innovative workforce development strategies that will close the gap and help thousands of San Diego youth, adults and businesses. More information is available at www.workforce.org.

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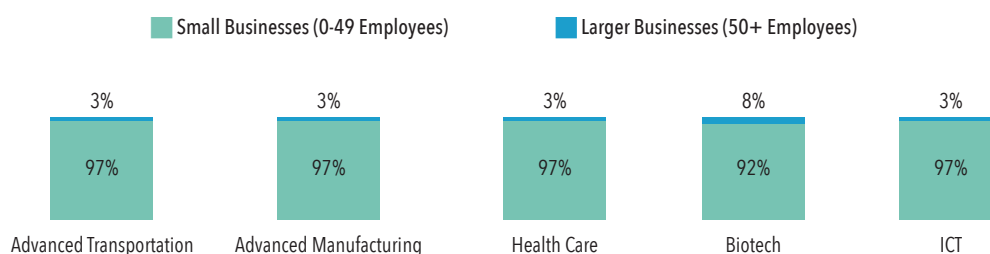
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Small businesses significantly impact San Diego’s economy, as firms with fewer than 50 employees make up 95 percent of all establishments and account for nearly one-half of the workforce. To better understand the workforce needs of small businesses, this study analyzes survey responses from 347 small businesses across San Diego County’s Priority Sectors — Advanced Manufacturing, Health Care, Advanced Transportation, Life Sciences/Biotechnology (Biotech) and Information and Communication Technologies (ICT).¹

Overview of Small Businesses in San Diego County

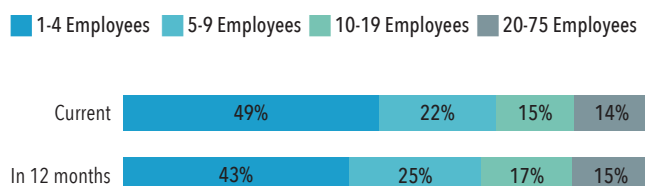
Small businesses are essential to the region’s economy and workforce because of their significant impact in all industries. Within the five Priority Sectors, small businesses account for more than 90 percent of all businesses in each sector.

Percentage of Total Businesses by Sector and Size of Business



On average, small businesses reported employing nine workers. Within the next 12 months, the average number of employees is expected to grow to 10. Employment growth is expected across all employment size categories.

Percentage of Small Businesses by Employment Size: Current and Projected



In 2015, small businesses (including owner-operated firms) employed approximately 568,000 workers. By 2016, total employment in small businesses is expected to grow by 15 percent, or 87,800 positions.

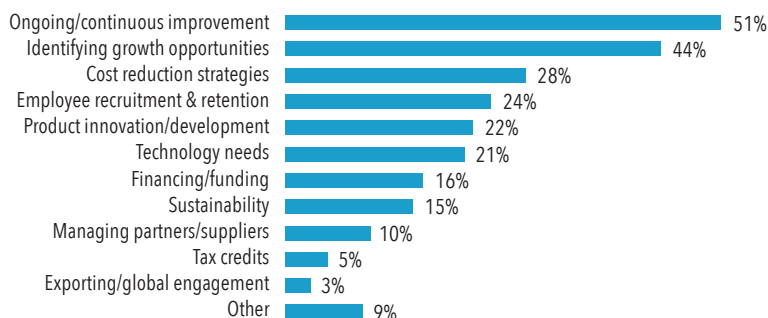
Estimated Employment Projections for Small Businesses in San Diego into 2016

Business Size	Current employment	Employment in 12 months	Change	% Change
1-4 Employees	105,800	139,100	33,300	31%
5-9 Employees	83,500	96,700	13,200	16%
10-19 Employees	123,300	138,100	14,800	12%
20-75 Employees	255,300	281,800	26,500	10%
Total	567,900	655,700	87,800	15%

Challenges

Small businesses surveyed for this study were asked about challenges they expect to face in the future, identifying the top three anticipated challenges over the next two years. The top challenges included ongoing/continuous improvement (51 percent), identifying growth opportunities (44 percent), and cost reduction strategies (28 percent).

Top Challenges Small Businesses Face Over the Next 2 Years

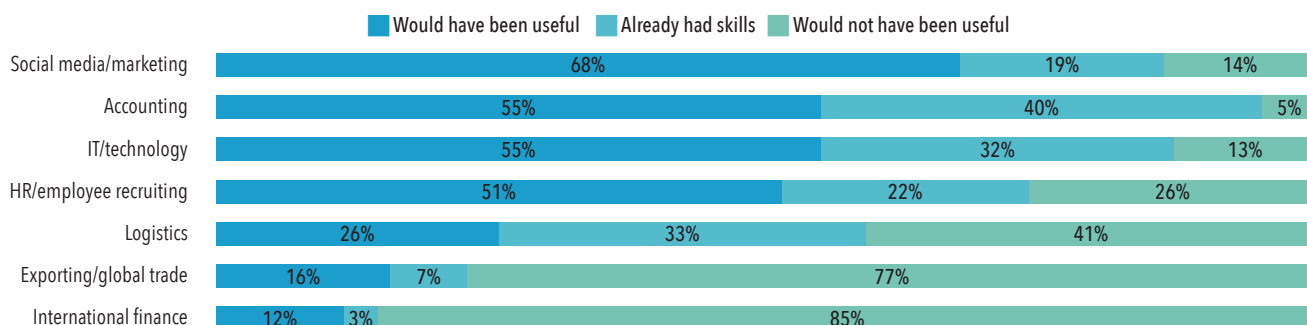


¹ In 2014, the San Diego Workforce Partnership and San Diego and Imperial Counties Community Colleges Association (SDICCCA) jointly identified five “Priority Sectors” to focus workforce development efforts and resources: Advanced Manufacturing, ICT, Health Care, Life Sciences and Clean Energy (which includes Advanced Transportation).

Workforce Needs

Accounting, IT and social media/marketing were most commonly ranked as useful for starting a business. Accounting was the skill that most business owners already possessed. Small businesses require workers, especially the owner, to have strong competencies across all fields to maintain business operations.

Usefulness of Skills When Starting a Business

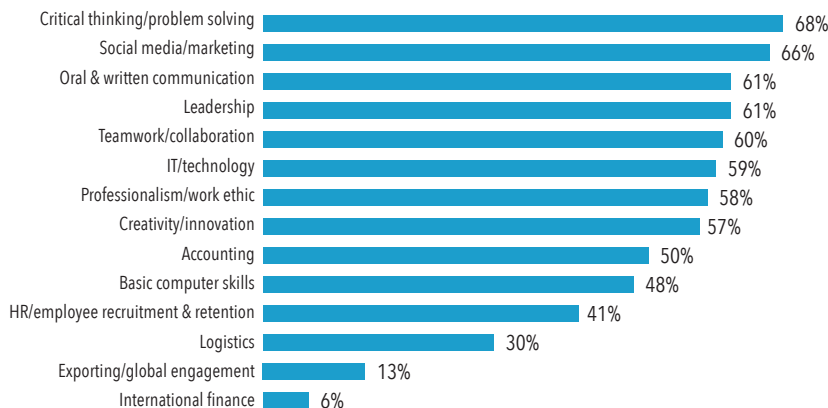


Top Skills for New Hires

Rank	Skill
1	Previous work experience
2	Technical skills
3	Soft skills
4	Post-secondary education

Small businesses placed the highest value on previous work experience and technical skills in the applicants they hire. Interestingly, while businesses ranked soft skills as third in importance, further analysis shows that topics such as critical thinking, problem solving, communication and leadership ranked highest in terms of useful workshop topics.

Potentially Useful Workshops for Small Businesses



Recommendations

- Build better awareness of resources available to small businesses to help them prepare solutions for upcoming difficulties
- Develop strategies to connect small businesses to employees who have the skills needed, and provide training to business owners and managers on effective approaches to employee retention
- Incorporate training that enhances skills such as social media marketing, IT and accounting for small business training programs
- Ensure that small business modules are incorporated into community colleges' curricula so that graduates are prepared to enter the workforce in small business fields
- Teach entrepreneurship modules across various disciplines at higher education institutions from community colleges to universities
- Incorporate subject areas that small business owners found most necessary when they started their business, including accounting, social media/marketing, HR/recruiting and IT in entrepreneurship programs
- Customize college offerings to include soft skills training topics that benefit small businesses' workforce, either through stackable certificate options, addition of modules to existing programs or a nationally-recognized work-readiness certificate

Introduction

Small businesses have a significant impact on the U.S. labor market and are vital to the economy. They are often recognized in the U.S. as an “incubator for innovation.” Small businesses tend to have a higher degree of patent creation than larger firms and a high-tech focus, hiring 43 percent of all scientists, engineers, computer programmers and others, nationwide.¹

Albeit slowly, small businesses in San Diego County have been recovering from the Great Recession (2007-2009).² Despite the slow growth, they continue to play an important role in the regional economy. For example, in 2014, San Diego was selected as the best place to launch a new business because of the large percentage of small businesses in the region that have Facebook pages and websites, accept credit cards, are located in high growth industries, and make up a significant portion of total businesses.³

San Diego’s larger businesses and government entities play a strong support role in the small business sector. The San Diego International Airport, for example, recently awarded \$60 million in construction contracts to small businesses in the region for its new Rental Car Center, helping to employ about 6,000 workers.⁴

As of 2012, there were about 77,000 businesses (not including farms or non-profit organizations) in San Diego County with at least one employee.⁵ With the inclusion of self-employed individuals, that number increases to nearly 100,000 establishments.⁶

The definition of a “small business” varies across federal institutions, but for the purpose of this study, small businesses are defined as companies with less than 50 employees. Across industry sectors in San Diego, small businesses with less than 50 employees make up an overwhelming majority (95 percent) of all establishments, accounting for one-third to one-half of the workforce depending on the industry. The Advanced Manufacturing sector, for example, is dominated by small-to medium-sized businesses with 82 percent of manufacturing businesses employing less than 20 employees.⁷

In order to better understand and document the workforce and education needs of small businesses in San Diego County, the San Diego and Imperial Counties (SDIC) Regional Consortium of Community Colleges representing the San Diego and Imperial Counties Community Colleges Association (SDICCCA), the Regional Center of Excellence for Labor Market Research (COE) and the San Diego Workforce Partnership (SDWP) collaborated to produce this study.

¹ “The State of Small Business,” San Diego Regional Chamber of Commerce, November 20, 2012, 3. sdchamber.org/assets/files/Website%20Resource%20Docs/EAGC_Small_Business_Report_FINAL.pdf.

² “2013 San Diego Small Business Outlook,” San Diego Chamber of Commerce, June 2013. sdchamber.org/assets/files/Website%20Resource%20Docs/2013%20SD%20Small%20Business%20Outlook_FINAL.pdf.

³ Tom Post, “The Best Places to Launch a Startup in 2014,” *Forbes*, March 13, 2014. forbes.com/sites/tompost/2014/03/13/the-best-places-to-launch-a-startup-in-2014.

⁴ “San Diego International Airport Awards \$155 Million to Local Businesses and \$60 Million to Small Businesses in Rental Car Center Construction Contracts,” San Diego International Airport, November 13, 2014. san.org/News/Article-Detail/ArtMID/952/ArticleID/62/San-Diego-International-Airport-Awards-155-Million-to-Local-Businesses-and-60-Million-to-Small-Businesses-in-Rental-Car-Center-Construction-Contracts.

⁵ Lisa Halverstadt, “San Diego Businesses, By the Numbers,” *Voice of San Diego*, August 7, 2014. voiceofsandiego.org/2014/08/07/san-diego-businesses-by-the-numbers.

⁶ Infogroup Database of Businesses of less than 50 employees.

⁷ *Advanced Manufacturing: Labor Market Analysis*. San Diego Workforce Partnership and San Diego and Imperial Counties Community Colleges Association. October 2014.

This study focuses on the workforce needs of small businesses across San Diego County’s priority and emergent sectors including Advanced Manufacturing, Health Care, Advanced Transportation, Life Sciences/Biotechnology (Biotech) and Information and Communication Technologies (ICT).⁸ The report identifies forces impacting the small business environment in the region, current and projected employment, skills and education needs of business owners and small business employees, as well as available education and training programs addressing small business needs.

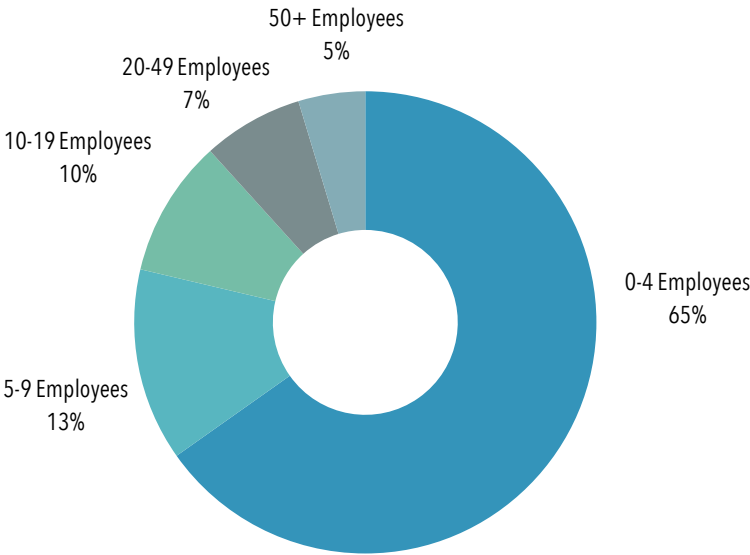
Primary data collection was performed using an online survey of 347 small businesses throughout San Diego County with fewer than 75 employees. Specifically, this study analyzes businesses that mostly fall in the category of 50 or less employees.⁹ Additional secondary research was conducted using California EDD’s Labor Market Information Division data and Infogroup’s database of businesses and regional publications. For more information on study methodology, refer to Appendix A.

This report summarizes the findings for small businesses across priority and emergent sectors, providing some comparison between the sectors. Detailed findings about small businesses in each of the sectors are also available as separate research briefs, with web-links provided in Appendix B.

Overview of Small Businesses

Overall, small businesses make up 95 percent of all establishments in San Diego County, with businesses comprised of 0-4 employees accounting for 65 percent or about 65,000 businesses (Figure 1).¹⁰

Figure 1. Breakdown of Small Businesses in San Diego by Size
(total establishments=99,652)



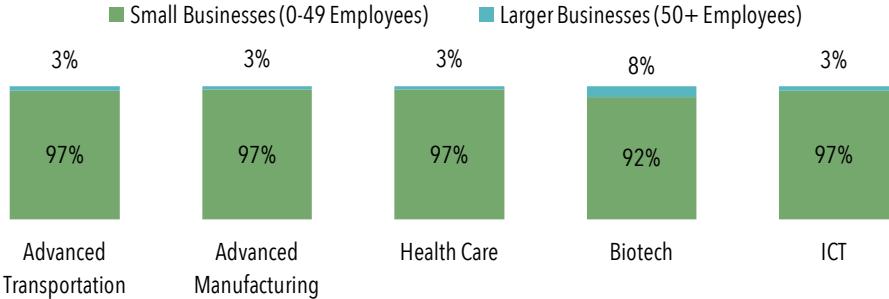
⁸ In 2014, SDICCCA and SDWP jointly identified five “Priority Sectors” to focus workforce development efforts and resources: Advanced Manufacturing, ICT, Health Care, Life Sciences and Clean Energy (which includes Advanced Transportation).

⁹ Some employers that participated in the study were larger than 50 employees but smaller than 75 due to recent growth. Their responses were not excluded from the study to provide a richer sample.

¹⁰ Source: California Employment Development Department.

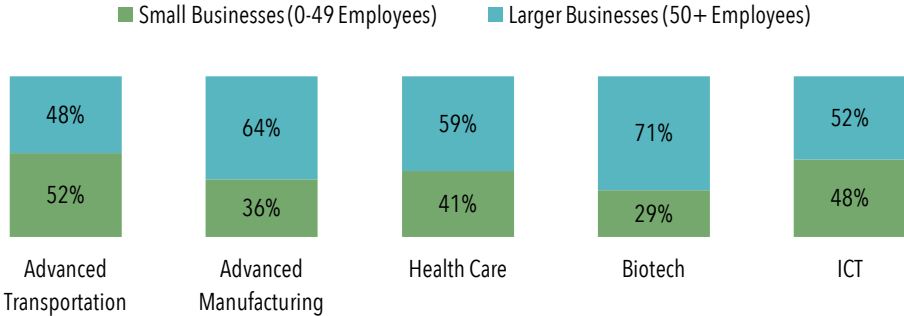
Small businesses are essential to the region’s economy and workforce because of their significant impact in all industries. The five priority and emergent sectors are no exception: small businesses account for more than 90 percent of all establishments in each sector (Figure 2).¹¹

Figure 2. Percentage of Total Businesses by Sector and Size of Business



Not only do small businesses have the most number of establishments in each sector, they also employ a significant portion of workers. In the Advanced Transportation sector, small businesses employ 52 percent of the sector’s workforce, followed by ICT where small businesses account for 48 percent of the sector’s employment (Figure 3).¹² This is important for job seekers as a large portion of employment in San Diego comes from small businesses—nearly half in most sectors.

Figure 3. Percentage of Total Employees by Sector and Size of Business

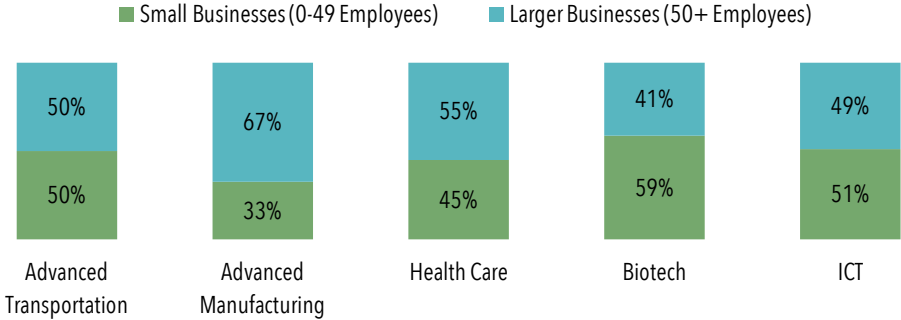


Across all industries, small businesses generate 60 percent of the total sales revenue,¹³ further highlighting the significance and impact they have on the economic activity in the region. However, the total revenue brought in by small businesses varies by sector. With the exception of Advanced Manufacturing, small businesses make up nearly 50 percent of the total revenue for each of the priority and emergent sectors.¹⁴ In Life Sciences/Biotechnology, small businesses account for the largest percentage of total revenue (59

¹¹ Source: Infogroup
¹² Source: Infogroup
¹³ Source: Infogroup
¹⁴ Source: Infogroup

percent). This is followed by the Information and Communication Technologies sector, with small businesses being responsible for 51 percent of the revenues (Figure 4).

Figure 4. Percentage of Total Revenue by Sector and Size of Business



Of the 347 small businesses surveyed in this study, 16 percent were employer-owned and operated while the remainder had an average of nine employees.

Businesses participating in the study identified their primary and secondary (if applicable) industries from a list. Most respondents identified Health Care as their primary industry, followed by Marketing, Sales and Service, Construction, and Advanced Manufacturing (Table 1).

Top "Other" Industry Categories

- Retail & Wholesale
- Legal Services
- Food Service & Restaurant
- Professional Services (architecture, landscaping and consulting)

Table 1. Self-Identified Primary and Secondary Industries of Small Businesses (n=347)

Industry	Primary Industry	Secondary Industry	Related Industries Marked "Other" ¹⁵	Total
Health Care	65	2		67
Marketing, Sales and Service	36	33		69
Construction	30	9		39
Advanced Manufacturing	27	5	13	45
Information & Communication Technologies	21	6	7	34
Business and Finance	13	9		21
Arts, Media and Entertainment	12	13		25
Biotech/Life Sciences	9	7	2	18
Real Estate	9	5		14
Agriculture/Natural Resources	8	2		10
Hospitality/Tourism	7	5		12
Education and Child Development	6	5		11
Advanced Transportation/Clean Energy	5	6	24	35
Energy, Environment and Utilities	5	3		8
Other	72	19		91

¹⁵ Includes businesses that selected "Other" and wrote in a response that could be categorized as one of the listed industries.

Engagement in Global Trade

According to estimates from the International Trade Administration, less than 5 percent of small businesses in the U.S. export due to barriers such as language difficulties, shipping costs and customer hurdles.¹⁶ Particularly challenging for small companies is the lack of information—the complexity of the U.S. system makes it difficult for businesses to understand how and where to obtain information and assistance.¹⁷

Some small businesses are capitalizing on the global economy, but similar to national trends, few small companies in San Diego actually export. Of the 347 businesses surveyed, approximately 20 percent (66 respondents) stated that their business exported goods or services. Among businesses that do engage in exporting activities, global trade accounts for a small portion of their revenues. Sixty-eight percent of businesses that engage in trade report that exports make up less than 10 percent of their total revenues.

Providing trade opportunities for small businesses will help continue and expand regional growth. Export-supporting jobs tend to pay 15 to 18 percent more than other jobs in the country.¹⁸ New initiatives such as eBay's Public Policy Lab are raising awareness and helping small businesses go global. The U.S. Commercial Service offers programs helping small business owners find potential business partners and obtain financing—two hurdles small businesses face when going global.¹⁹ Small businesses are encouraged to utilize free resources such as SCORE and the UPS Global Trade website.²⁰ Additionally, the Small Business Administration (SBA) has \$17.4 million in funding to help increase small business exports.²¹

Current and Projected Employment

Of the small businesses surveyed, 16 percent are owner operated, while 55 percent have between 1 to 9 employees, and 29 percent have 10 to 75 employees.

On average, small businesses surveyed employ nine workers per establishment. Within the next 12 months, the average number of employees for these businesses is expected to grow to 10. They are expected to gain employees and move into the higher employment categories across the board. For example, owner-operated businesses with no employees currently account for 16 percent of all respondents; however, these businesses plan to hire more workers, which would move them from the owner-operated business category to the 1-4 employees category 12 months from now. This decreases the percent of owner-operated businesses from 16 percent to 12 percent. Similar trends are expected across all employment size categories (Figure 5).

¹⁶ Kate Rogers, "How e-commerce helps US small businesses go global," CNBC, April 27, 2015. cnbc.com/2015/04/27/how-e-commerce-helps-us-small-businesses-go-global.html.

¹⁷ Rogers, "How e-commerce helps US small businesses go global," CNBC.

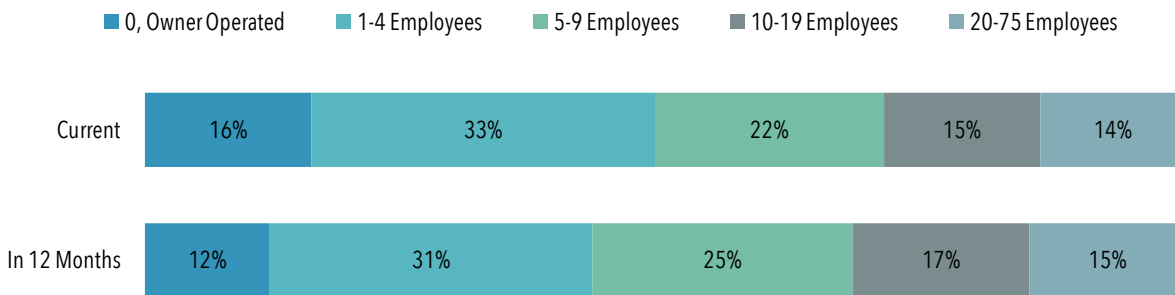
¹⁸ John Lovett, "Exporting Goods Helps Small Businesses Grow," Times Record, September 21, 2015. swtimes.com/business/exporting-goods-helps-small-businesses-grow.

¹⁹ "Changing Small-and Medium-Sized Businesses' Perception of Global Trade." thenewlogistics.ups.com/grow/international-logistics-smb.

²⁰ UPS Global Trade website: global.ups.com/international-shipping-cost.

²¹ "SBA Awards \$17.4M to Promote Small Business Global Trade," Business Facilities Magazine, August 25, 2015. businessfacilities.com/2015/08/sba-awards-17-4-million-to-promote-small-business-global-trade.

Figure 5. Percentage of Small Businesses by Employment Size: Current and Projected



By extrapolating the numbers provided by a sample of small business survey respondents, estimates can be made for current and future employment for all small businesses in San Diego County. In 2015, small businesses (including owner-operated firms) employed approximately 568,000 workers. By 2016, total employment in small businesses is expected to grow by 15 percent, creating 87,800 new positions (Table 2).

Table 2. Estimated Employment Projections for Small Businesses in San Diego into 2016

Business Size	Current Employment	Employment in 12 Months	Change	% Change
0-4 Employees	105,800	139,100	33,300	31%
5-9 Employees	83,500	96,700	13,200	16%
10-19 Employees	123,300	138,100	14,800	12%
20-75 Employees	255,300	281,800	26,500	10%
Total	567,900	655,700	87,800	15%

Table 2 indicates that small businesses with no employees (owner-operated) and 1-4 employees combined are expected to grow at the fastest rate (31 percent), adding approximately 33,300 jobs in the next 12 months. Their initial small employment size contributes to this fast relative growth. For example, businesses with only one employee expecting to hire four new positions would see a 400 percent increase. The same increase in number of workers would indicate only a 20 percent growth for a business with 20 employees.²² Small businesses with 5-9 employees have a current employment of 83,500 and are projected to grow at a rate of 16 percent into 2016.

Employment outlook among small businesses across priority and emergent sectors is very positive, ranging from 10 to 16 percent in expected annual short-term growth. Health Care is projected to have the highest overall small business employment growth, with 7,900 jobs added to the region by 2016. Advanced Manufacturing has the second-highest projected employment growth, with an estimated 7,000 jobs added by 2016 (Table 3). A breakdown of employment projections by sector and size is available in the research briefs for each sector (Appendix B).

²² The complete methodology for how these estimates were obtained is available in Appendix D.

Table 3. Estimated Small Business Employment in San Diego County by Sector²³

Sector	Current Employment	Employment in 12 Months	Change	% Change
Health Care	50,600	58,500	7,900	16%
Advanced Manufacturing	45,500	52,300	7,000	15%
Advanced Transportation	23,100	26,600	3,500	15%
ICT	16,000	18,400	2,400	15%
Life Sciences/Biotech	20,400	22,500	2,100	10%
Other	432,000	498,900	66,900	15%

Challenges for Small Business

Small businesses in San Diego County face a number of regulatory, economic and workforce challenges. These challenges include legislative mandates, rules and regulations governing businesses, a lack of resources, the inability to find skilled workers and more.

While San Diego is consistently chosen as a prime location for high-tech startups, the region lacks in overall friendliness toward small business owners. An online hiring service, Thumbtack, conducted a survey in 2014 of 12,000 small business owners across the country and ranked San Diego at number 78 out of 82 – one of the nation’s least business-friendly cities.²⁴ The 212 small businesses in San Diego that participated in the Thumbtack survey²⁵ found that starting a business in San Diego was difficult and time-consuming, presenting an array of unfriendly licensing and regulatory requirements including zoning rules and tax code, labor law and environmental regulations.²⁶ While many service professionals did value the ability of licensing and regulatory requirements to protect consumers and keep lower-quality competitors off the market, problems navigating onerous requirements remained a top concern for small business owners.

The decision of small businesses to operate in San Diego is significantly affected by their perception of government relations. Smaller firms (fewer than three employees) tend to be less optimistic about the future, and there is a perception that government is becoming less business friendly.²⁷ Union Bank’s annual Small Business Economic Survey found that, despite an overall boost in confidence regarding the economic outlook, 26 percent of San Diego business owners plan to move out of state because of tax burdens.²⁸ Governments that provide training and incentive programs, easy to navigate tax and regulatory systems, and pro-growth environments are most likely to attract small businesses to their cities.²⁹ Based on analysis

²³ Sector by sector employment must not be summed. Grand total in Table 3 would be higher than Table 2 because some businesses are included in more than one sector due to overlap between sector activities.

²⁴ Alexander Nguyen, “Survey: San Diego, California Worst for Small Business,” Times of San Diego, June 30, 2014. timesofsandiego.com/business/2014/06/30/study-san-diego-california-worst-places-business.

²⁵ Breakdown of businesses participating in survey: 59 percent in business for the first time, 41 percent running businesses that were just four years or younger; 60 percent of businesses had no employees, 90 percent had five or fewer.

²⁶ Jon Lieber, “What Small Business Owners Want from the City,” Voice of San Diego, September 17, 2014. voiceofsandiego.org/2014/09/17/what-small-business-owners-want-from-the-city.

²⁷ “2013 San Diego Small Business Outlook.”

²⁸ Katherine P. Harvey, “Entrepreneurs’ Optimism Hits All-Time High,” U-T San Diego, March 3, 2015. utsandiego.com/news/2015/mar/03/union-bank-small-business-survey.

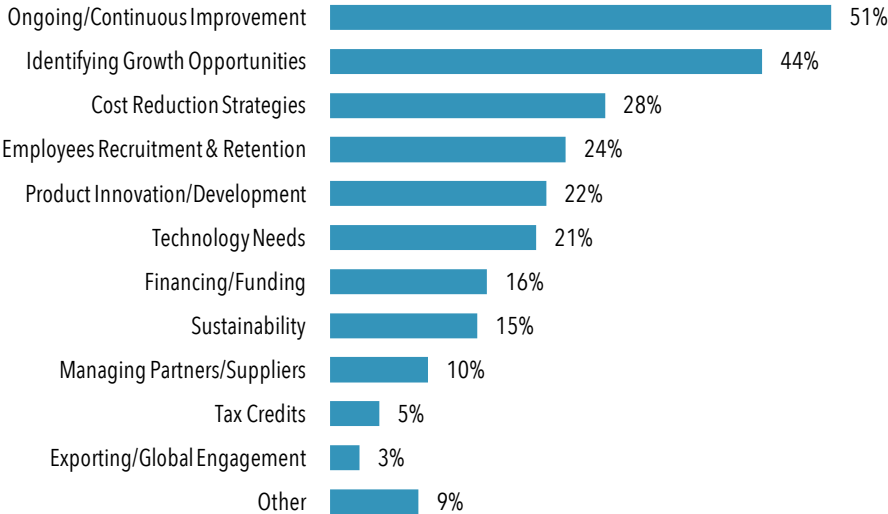
²⁹ Nguyen, “Survey: San Diego, California Worst for Small Business.”

conducted by the San Francisco-based technology company Radius, the next generation of small business owners will be attracted to areas that provide strong community engagement and access to resources, as opposed to growing job rates and income levels.³⁰

Small businesses typically lack the efficiency and resources that larger companies have. Financing is a major challenge leading to low survival rates for small businesses. Just 70 percent are estimated to survive the first two years and only 25 percent for 15 years or more.³¹

Knowing that businesses face these types of challenges and more, the small businesses surveyed for this study were asked about the challenges they expect to face in the next one to two years. The top challenges included ongoing/continuous improvement (51 percent), identifying growth opportunities (44 percent), and cost reduction strategies (28 percent). About one in four small businesses indicated employee recruitment and retentions was an important challenge as well (Figure 6).³²

Figure 6. Top Challenges Small Businesses Face Over Next 2 Years (n=300)



Small businesses specified “other” challenges that they may face, including new reporting requirements under the Affordable Care Act or other federal legislation, climate change, local, state and federal emissions regulations, and many more.

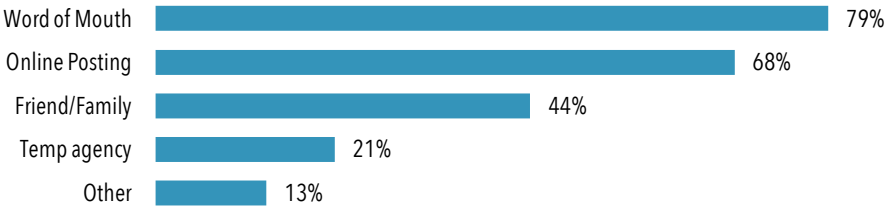
³⁰ Post, “The Best Place to Launch a Startup in 2014.”
³¹ “The State of Small Business,” 4.
³² Percentages will not add up to 100 due to businesses selecting more than one option.

Hiring Practices and Difficulties

With 24 percent of small businesses concerned about employee recruitment and retention, hiring strategies are important to consider. This study analyzes the types of applicants that small businesses hire, how they find applicants, and what hiring challenges they face as small businesses.

The most commonly-used method of recruiting among the businesses surveyed was word-of-mouth networking (79 percent) followed by posting job advertisements online (68 percent). The least commonly-used method was temporary (placement) agencies, with about one-fifth of the respondents utilizing their services. Employers who selected “other” tended to use print media such as classified ads in newspapers and other local publications (Figure 7).

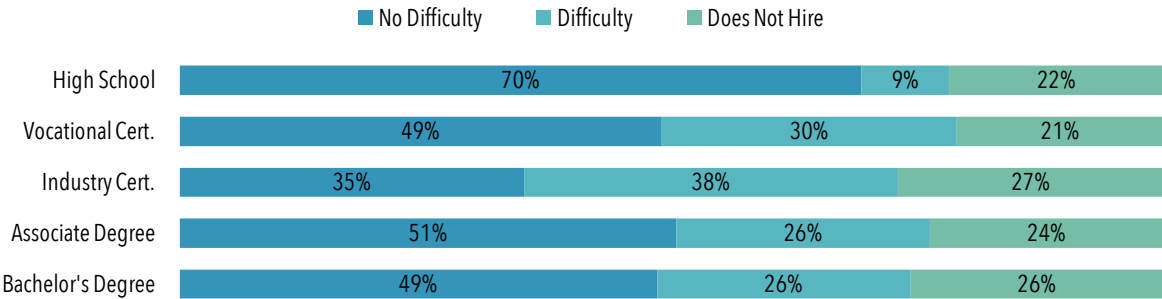
Figure 7. Methods of Seeking Qualified Job Applicants (n=248)



Many small businesses surveyed were open to hiring youth and previously-incarcerated individuals as regular, full- or part-time employees or in other capacities such as interns or independent contractors. Twenty-three percent of respondents would not hire youth and 28 percent would not hire previously incarcerated individuals.

Overall, most small businesses did not face difficulty when hiring individuals with a high school education and faced the most difficulty hiring those with an industry certification (Figure 8).

Figure 8. Hiring Difficulty by Education Level (n=260)



Thirty-six percent of the employers had hired applicants with a degree or certificate from the California Community Colleges.

Opportunities and Resources for Small Business

Both federal and local benefits are available to small businesses including training opportunities and financial support such as subsidies and tax cuts.³³ The U.S. Small Business Administration (SBA) has financing programs such as the *Patriot Express Loan* for veterans and the military community, the *Small Business Innovation Research (SBIR) program* which provides grants for small technology businesses, as well as several export loan programs.³⁴ SBIR plays an instrumental role in providing initial funding for local businesses. It provided early funding for such businesses as Qualcomm and Amgen.³⁵ As of 2012, the SBA assisted nearly one million small businesses and helped create over 15,000 additional businesses across the U.S.³⁶ Small businesses such as Stroller Strides encountered rapid growth challenges and were able to acquire SBA loans to help with the transition.³⁷

In addition to government efforts, various private organizations in San Diego provide initiatives and contributions to foster a business-friendly environment in the region. The San Diego Regional Chamber of Commerce hosts business workshops and networking opportunities in order to promote regional economic integration among both large and small businesses.³⁸

Other niche organizations provide support for and promote local businesses in specific regional industry segments. Tech Coast Angels, for example, mentors local startups and provides networking opportunities. It invested approximately \$120 million in over 200 companies.³⁹ CommNexus provides mentoring and networking programs to high-tech companies, while Cleantech San Diego advocates for local clean-tech startups.

For this study, respondents were asked about the various resources that are available to small businesses and whether or not they access these resources. The majority of the small businesses are unaware of the various resources available, with two-thirds of the businesses surveyed not utilizing any of the resources listed. The most commonly accessed resources were the Chambers of Commerce (19 percent), Better Business Bureau (13 percent) and the U.S. Small Business Administration (11 percent) (Figure 9).

³³ "The State of Small Business," 5-6.

³⁴ "The State of Small Business," 5.

³⁵ "The State of Small Business," 4.

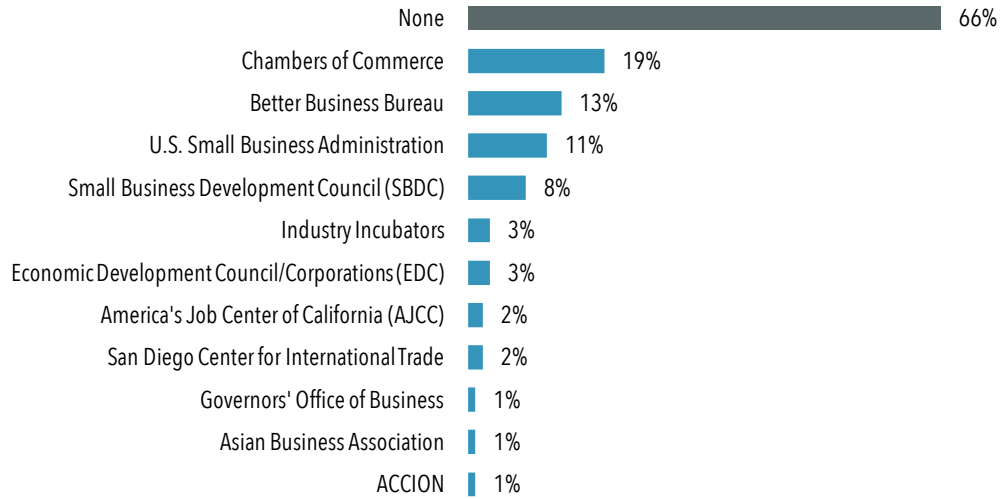
³⁶ "The State of Small Business," 6.

³⁷ "Small Business Owner Achieves High Growth After SCORE Guidance, SBA Loan," SBA. sba.gov/offices/district/ca/san-diego/success-stories/small-business-owner-achieves-high-growth-after-score-guidance-sba-loan.

³⁸ Matthew Hose, "Who Does What for San Diego's Business Community," Voice of San Diego, October 21, 2014. voiceofsandiego.org/all-narratives/quest-business-climate/who-does-what-for-san-diegos-business-community.

³⁹ Hose, "Who Does What for San Diego's Business Community."

Figure 9. Percentage of Small Businesses Resources Utilizing Available Resources (n=299)



Workforce Needs of Small Business

Small businesses place the highest value on previous work experience and technical skills in the applicants they hire. This is based on the responses from employers who ranked the following attributes of job candidates in order of importance: technical skills, post-secondary education, soft skills (e.g., written and oral communication) and previous work experience (Table 4).

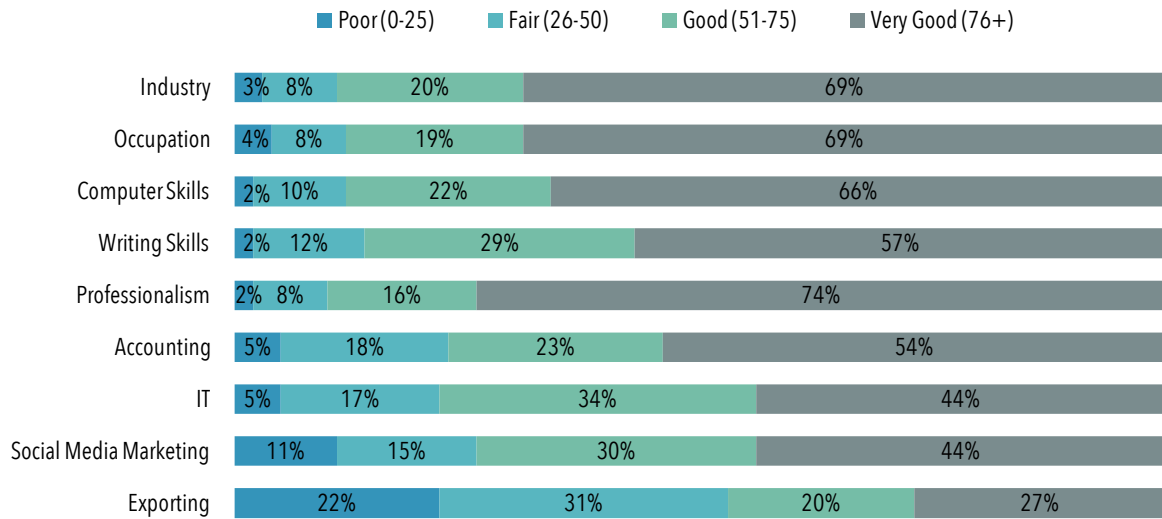
Table 4. Top Skills for New Hires (n=261)

Rank	Attribute
1	Previous Work Experience
2	Technical Skills
3	Soft Skills
4	Post-Secondary Education

Small business employers also ranked their employees on various skills and knowledge proficiencies. The skills were ranked from 0 to 100 (lowest to highest proficiency) where 0 to 25 is poor, 26 to 50 is fair, 51 to 75 is good and 76 to 100 is very good. The first set of questions asked about their employees' proficiency in their occupations and within the industry as a whole. The second set asked about their proficiency in computer and soft skills, and the final set asked about technical skills.

Overall, employers felt their employees were proficient in their occupational category and in the industry in general. The areas they felt they could use improvement were accounting, information technology (IT), exports and social media/marketing, which were all ranked relatively low on the proficiency scale. Because small businesses have so few employees, workers need to have knowledge, skills and abilities across multiple roles to help contribute to the business while keeping costs down (Figure 10). Appendix C lists the full statistical summary and provides ranges and greater context for these scores.

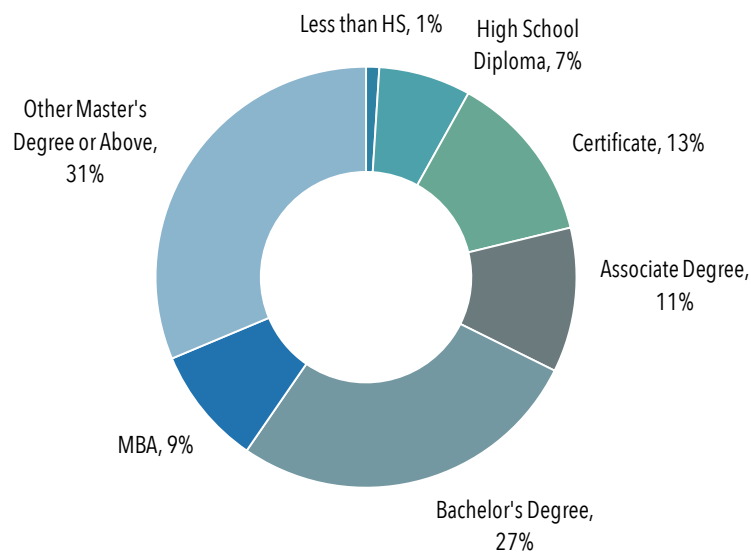
Figure 10. Average Scores of Employees' Skills on Proficiency Scale (n=258)



Business Owner Education & Skills

Among the respondents surveyed, 60 percent were business owners who are highly educated. Over two-thirds hold at least a four-year degree, with many completing graduate level work (40 percent). However, there are some business owners that only completed high school (7 percent) or obtained a certificate (13 percent). (Figure 11).

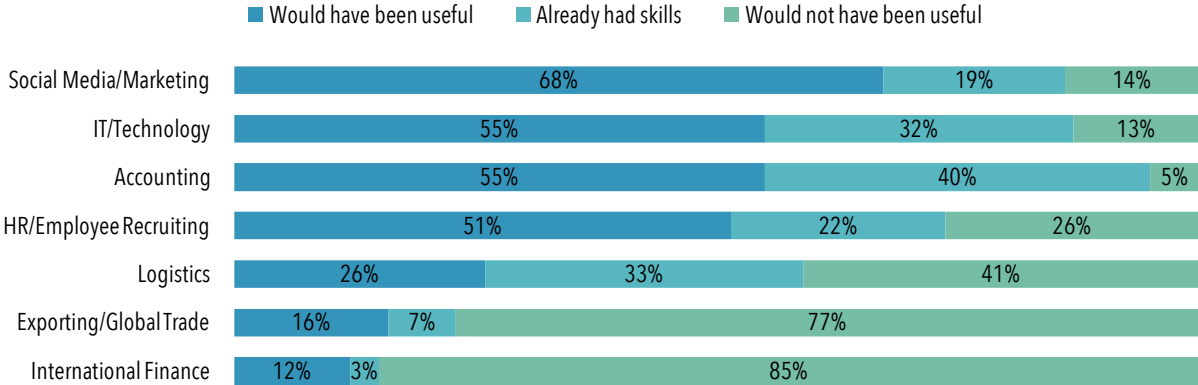
Figure 11. Educational Attainment of Business Owners (n=165)



Owners were also asked about various types of training and skills they felt were beneficial to have, especially when they first started a business. Accounting, IT and social media/marketing were most

commonly ranked as useful for starting a business. Accounting was the skill that many business owners (40 percent) already possessed (Figure 12). As previously mentioned, small businesses require workers, especially the owner, to have strong competencies across all fields to keep the business running.

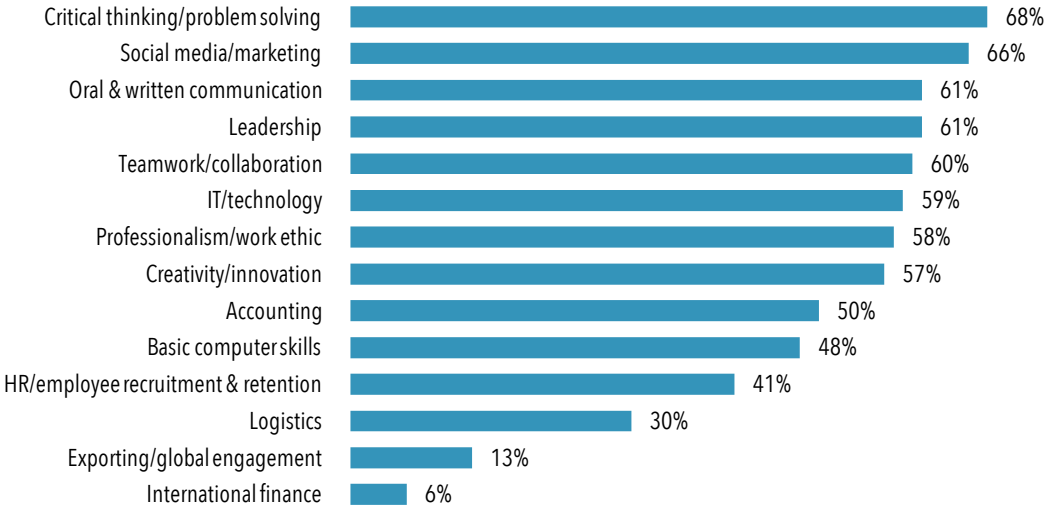
Figure 12. Usefulness of Skills When Starting a Business (n=165)



Training Needs of Small Business

When asked which training or workshops would be the most useful for businesses, the top themes included critical thinking/problem solving (68 percent of business owners reported it as useful), and social media (66 percent), followed by oral and written communication, leadership, teamwork/collaboration, IT/technology, etc. (Figure 13).

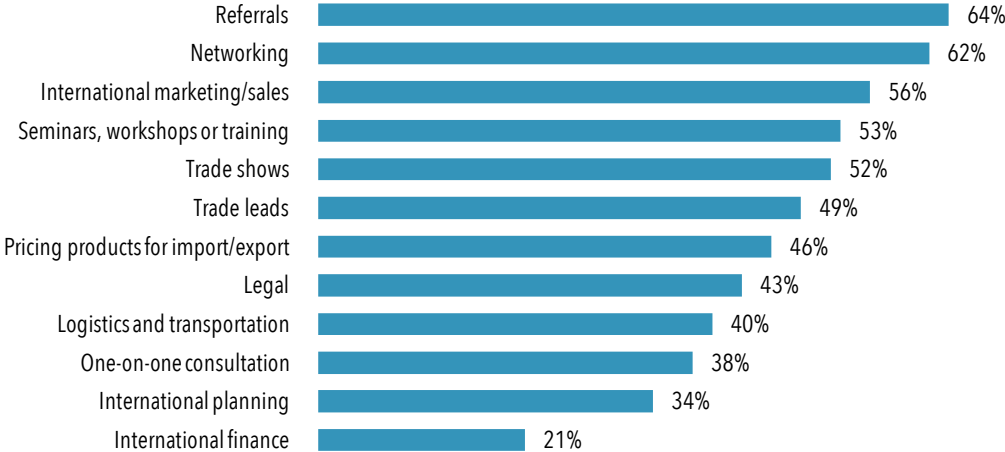
Figure 13. Potentially Useful Workshops for Small Businesses (n=279)



Among the small businesses surveyed, 20 percent engage in global trade. When asked to determine which services would be most useful for businesses engaging in international trade, two out of three small businesses indicated referrals and networking would be most helpful. Over a half of all exporting small

business also thought that they would benefit from services in international marketing/sales, seminars, workshops or trainings and trade shows (53 percent). (Figure 14).

Figure 14. Potentially Helpful Services for Businesses that Engage in International Trade (n=58)



Education and Training Programs for Small Businesses

To address the needs of small businesses in San Diego, many education and training institutions created programs catered specifically to small business owners and their employees. Partnerships between businesses and these education and training programs are most effective in aligning curriculum with employer needs. There are also other community involvement opportunities for small businesses. Some of the businesses surveyed indicated interest in collaborating with local community colleges in two main ways: hiring workers out of community college training programs and providing hands-on training or internship experience for students. About one quarter of small business respondents expressed interest in hiring workers from community college programs and 28 percent expressed interest in providing internship experience for students (Table 5).

Table 5. Employer Interest in Collaboration Activities

Collaboration Activity	Percentage of Employers Reporting Interest
Hire workers from Community College training program	24%
Provide hands-on or internship experience for students	28%
Advise training program curriculum and/or sit on an advisory council	16%
Participate in career or job fair activities	14%

A number of education institutions in the region provide education and training opportunities for students to enter into small business careers or obtain knowledge needed to become an entrepreneur. Some of these programs lead to associate degrees or postsecondary certificates at community colleges, while others lead to 4-year or graduate awards. There also options of short-term trainings, workshops and seminars.

Community College Programs

In San Diego, there are several business programs offered by community colleges. These programs include general business administration and business management. However, there is only one major community college program that directly prepares students for starting their own business—Taxonomy of Programs (TOP) 050640 Small Business and Entrepreneurship program. The Small Business and Entrepreneurship program is offered at three colleges in the San Diego area: Cuyamaca College, MiraCosta College and San Diego City College. Between 2013 and 2015, there have been a total of 110 certificates and degrees awarded by these three colleges, most of which were certificates (Table 6).⁴⁰

Table 6. Small Business and Entrepreneurship Program Awards in San Diego 2013-2015

Type of Award	2013	2014	2015	Total
Associate degree	11	17	14	42
Certificate	17	32	19	68
Total	28	49	33	110

Community colleges also cater to students who are interested in various trades that can lead to small business opportunities such as culinary arts, cosmetology or construction. These students may seek the Small Business and Entrepreneurship certificate as an add-on certificate to their trade program. Those who complete both the technical training and the small business program will not only obtain knowledge related to the main product and service they can provide as a small business owner, but also understand what it means to start and manage any small business.⁴¹

Because the Small Business and Entrepreneurship program still fits within the general business programs at community colleges it shares many courses with these programs. The following is the list of the specific courses that students of the general business programs may take to learn the aspects of small business and entrepreneurship, such as navigating the initial start-up process, obtaining finances and writing a business plan (Table 7).⁴²

Table 7. Small Business Courses Offered in San Diego Community Colleges

College	Course Number	Course Title
Cuyamaca	BUS 111	Entrepreneurship: Starting/Developing a Business
	BUS 119	Entrepreneurship: Finance & Writing Business Plan
MiraCosta	BUS130	Small Business Management
	BUS170	Entrepreneur I
	BUS171	Entrepreneur II
Palomar ⁴³	BMGT 105	Small Business Management
Southwestern	BUS-52	Basics of Government Contracting

⁴⁰ Source: CCCCCO DataMart.

⁴¹ Full list of available community college programs can be found at myworkforceconnection.org/cc-programs.

⁴² Source: CCCCCO DataMart.

⁴³ Palomar College offers this course as a stand-alone elective.

Professional Development Programs

There are many professional development programs and workshops throughout San Diego that offer training for those who own or are interested in starting a small business. Many of these training opportunities are offered by the agencies that provide a broader support to small businesses in the region. Some resources are free of charge and available as online self-paced study modules. A number of colleges and university extension offices provide short-term certificate options for aspiring entrepreneurs (Table 8).

Table 8. Professional Development and Certificate Programs in Small Business

Organization	Program Type
U.S. Small Business Administration (SBA)	Online training modules
UCSD Rady School of Management	Beyster Startup Toolkit modules
Dale Carnegie Training	Online training programs
Employee Training Institute (ETI)	Online training programs
UCSD Rady School of Management	Beyster Institute
University of Redlands, School of Business	Professional Development workshops
CONNECT	FrameWorks Workshops
Dale Carnegie Training	Seminars
I Business Forum	Educational seminars, e-business workshops and training
UCSD Rady School of Management, Center for Business Analytics	Programs, courses, workshops
SCORE	Local and online training workshop programs
America's Small Business Development Center (SBDC)	Certificate Program
Cal State San Marcos University Extended Learning, Business & Professional Development	Certificate Program
National University School of Business and Management	Certificate Program
SDSU College of Extended Learning	Certificate Program
UCSD Extension	Certificate Program
University of Phoenix, School of Business	Certificate Program

4-year and Graduate Education

Programs for those who want more advanced training in small business and in business in general are also available in the region.

- There are **11 different bachelor's degree programs** in the area offered from 10 institutions such as CSU San Marcos, San Diego State University and University of San Diego. These bachelor's degree programs include business administration, business economics, finance and management. Some programs can even be completed online.
- There are **19 graduate degree programs** offered by 15 institutions that include Master of Business Administration (MBA) degrees. These MBA degrees are typically targeted to two types of students: those with years of experience in business and those with little or no business experience. Degree seekers with business experience typically qualify for an "executive" MBA while those without the experience will go the route of a traditional MBA program. These programs vary in length and intensity and are fairly flexible as they are designed for working professionals. These programs are offered at universities such as San Diego State University, UC San Diego and National University.

Conclusion and Recommendations

Evidently, small businesses have a strong economic and employment impact on San Diego. While many of San Diego's small business owners are highly educated with a bachelor's degree or higher, many of the skills they claimed to be useful in starting their companies are skills that could be developed through a variety of training programs, both at the community college and university levels (e.g., social media, accounting, IT/technology, critical thinking, teamwork). Additionally, while small business owners tend to already possess these skills when starting a business, their responses suggest that additional or continuing education would be beneficial in growing or operating their businesses – particularly in a constantly changing economic environment.

Education & Training

While there are multiple business-related training and education programs throughout San Diego, the results from this study could help refine training curricula to best fit the current needs of small businesses.

- Social media marketing, information technology, and accounting are skills that small business employers find their employees lacking. Curriculum across programs in the five priority and emergent sectors should incorporate training to enhance these skills.
- About 36 percent of small businesses hire graduates of California community college programs. Community colleges need to make sure there are small business modules incorporated into their curricula so that graduates are prepared to enter the workforce in small business fields. This often means that workers need to have a broad range of skills to help run a small business as small business employers tend to hire people who perform multiple functions. Students should also be prepared to network in order to find employment in small businesses since word-of-mouth networking is the primary hiring method for these companies.
- Ninety-two percent of small business owners hold some type of post-secondary education, either a certificate or degree. It is important for educational institutions to recognize that they are preparing students to enter small business fields. Entrepreneurship modules should be taught across various disciplines at higher education institutions from community colleges to universities. Community college might want to offer a small business and entrepreneurship program as a stackable certificate option for students that complete technical or other subject-area programs (e.g., construction, cosmetology, child development).
- Entrepreneurship programs should incorporate subject areas that small business owners found most necessary when they started their business including accounting, social media/marketing, HR/recruiting and IT. Colleges should also review the curriculum of their Small Business and Entrepreneurship programs to ensure these subject areas are taught in the small business context.
- While small businesses ranked soft skills third out of the four attributes putting work experience and technical expertise first and second for their workforce, they conversely indicated soft skills (critical thinking/problem solving, oral and written communication, leadership, and teamwork/collaboration) as the top five workshop topics that would benefit their business. Colleges need to customize their offerings in those disciplines to small business workforce, either through stackable certificate

options, additional modules to the existing programs and courses, or through a nationally-recognized work-readiness certificate.

- With the emphasis small business put on work experience when they hire employees, it is important for education institutions to work closely with employers and incorporate a work experience component into their programs, such as internships. Working with regional organizations that support small businesses (e.g., SDWP, Small Business Development Center, etc.) might be the best way to set up internship programs for students.

Small Business Support Organizations

The following provides general recommendations for organizations aimed at supporting small businesses growth in San Diego County.

- **Collaborative Awareness of Business Programs.** Employers indicated that their top three challenges were ongoing/continuous improvement, identification of growth opportunities, and cost reduction strategies. However, two-thirds of businesses do not utilize resources that could address these commonly-experienced challenges. Building better awareness of resources available to small businesses would allow them to prepare solutions for upcoming difficulties. Some current efforts include Go-Biz teaming up with regional Economic Development Councils (EDCs) to hold workshops for their California Competes tax credits program. The San Diego Regional EDC highlights the program's achievements almost weekly in their newsletter to inform and educate businesses about these incentives. Similar to the EDC, other business supporting organizations would benefit the region if they outreached about opportunities outside of their own programming to the businesses that they serve. This would generate a collaborative environment where organizations would market each other's programs and have a greater reach in the business community.
- **Reduction of Challenges to Exporting.** As previously mentioned, less than 5 percent of small businesses in the U.S. export goods and/or services. San Diego County is not different. While export-related jobs pay more than other jobs on average, respondents that do participate in global trade reported that exports make up less than 10 percent of their revenues. For businesses that do not know how to export, there are a number of available programs initiatives to assist in exporting, including JPMorgan Chase's export initiative (which funds export activities for companies that have no export experience) and eBay's Public Policy Lab's global awareness program. While the Small Business Administration has \$17.4 million in funding to support exports, many businesses do not know of or utilize SBA services. Organizations and training programs in the San Diego region should track what business resources are available in the region and incorporate that knowledge in their programming or curriculum. While knowledge of exports is not an immediate need at the inception of a business, that knowledge becomes useful once a business is stabilized and ready to grow.
- **Employment Strategies.** One out of four small businesses surveyed consider employee recruitment and retention an important challenge they will face in the next two years. It is important to develop strategies that would 1) connect small businesses to employees who have the skills needed and 2) provide training to the business owners and managers on effective approaches to employee retention. Organizations providing training and hiring incentives such as the San Diego Workforce Partnership should not only actively market these programs to businesses, but streamline the

application process to make it easier for small businesses to participate. For small businesses struggling to meet payroll and sustain day-to-day operations, cumbersome forms and processes act as an additional barrier for small businesses to participate in government programs that would significantly support their growth.



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Appendix A: Methodology

This report used a sample of 347 small businesses throughout San Diego county that employed fewer than 75 employees. A survey instrument created in Qualtrics was used to collect the data. To obtain the sample database of businesses in San Diego county from Infogroup was utilized. The database included business related information such as contact information, employment size and industry identification (NAICS codes).

First, the database was filtered to include only businesses with 50 or fewer employees. This was the definition of small businesses used in the study. Then, utilizing the list of primary sectors developed in partnership between COEs and SDWP, Advanced Manufacturing, Advanced Transportation (COE definition), Health Care, Life Sciences/Biotechnology and Information and Communication Technologies (ICT), the businesses were filtered by NAICS code(s) and grouped into one of those five categories or a sixth "Other" category. Since some businesses appeared under multiple sectors due to the assignment of the same NAICS codes to more than one sector, we assigned those businesses to the sector that had the smallest number of businesses. Smaller sectors with fewer businesses, such as Biotech, received priority over larger sectors such as Advanced Manufacturing. This was done in order to enhance responses for smaller sectors.

Once all businesses were categorized into their sectors, they were then organized by whether or not they had an email address on file. Those that did received an email from the COE inviting them to take the survey. Those that did not have an email address on file were contacted via phone call with the assistance from Davis Research and asked to provide an email address. Consequently, a survey link was sent to those businesses that agreed to participate. During this data collection period, the online response from businesses in the "Other" category was the highest. To better obtain a representative sample for each of the priority and emergent sectors, Davis Research targeted small businesses specifically within those sectors.

Employment Projection Methodology

In the survey instrument, the COE asked employers the following question in regards to their employment: *"How many employees work at your business? (For owner-operated/no employees, enter '0')"* They were asked this for their current number of employees and their estimated number of employees in 12 months. The data received from the sample of small businesses was extrapolated to estimate the employment for the universe of small businesses in San Diego.

Those responses were taken and divided into 4 groups by employment size: 0-4 employees ("0" indicating owner operated establishments), 5-9 employees, 10-19 employees and 20+ employees.

For each size group various statistics including the mean and standard deviation were calculated. Using these numbers, outliers (extreme scores) were identified and removed to ensure a conservative estimate in regards to current employment, future employment and growth rates.

The COE identified outliers in the 0-4 employees group that were causing the growth rate to be inflated. As stated previously, this group has the highest rate due to the low starting employment; a business with only 1 employee that hires a new one has a growth rate of 100 percent even though it's only 1 new employee. These outliers were removed to bring down the artificially inflated growth rate to a more conservative estimate.

Next, data from the California Employment Development Department (EDD) was used as the best estimate of the number of small businesses in San Diego. The data from the EDD is from the third quarter of 2014 and provides the most recent estimates. The numbers were obtained for each size category: 0-4 employees, 5-9 employees, 10-19 employees and 20-49 employees for these extrapolations.

The averages calculated for each group were multiplied by the EDD’s estimate of number of businesses. Table 9 shows how this was done. For example, for businesses with 0-4 employees, the COE’s sample data showed that these businesses had 1.63 employees on average. That average was then multiplied by the EDD’s estimated number of businesses that employed 0-4 employees (64,978) to obtain our estimated employment for San Diego of 105,787 employees. This process was repeated for future employment and for change. The COE sample data is in table 10. Note that this table does NOT include means but rather sums for each category. It shows that in the sample data, there were a total of 267 employees among small businesses with 0-4 employees.

Table 9. COE Sample Means, Employment Estimates and EDD Estimates

	0-4 Employees	5-9 Employees	10-19 Employees	20-75 Employees
COE Sample Means (# of Employees per business)	1.63	6.21	12.88	36.44
EDD Estimated Businesses	64,978	13,439	9,568	7,005
COE Estimated Current Employment	105,787	83,463	123,258	255,262

Table 10. COE Sample Data (Sums)

	Current	Future	Change	% Change
0-4 Employees	267	351	84	31%
5-9 Employees	472	547	75	16%
10-19 Employees	657	736	79	12%
20-75 Employees	1822	2011	189	10%

Important Disclaimer

All representations included in this report have been produced from primary research and/or secondary review of publicly and/or privately available data and/or research reports. Efforts have been made to qualify and validate the accuracy of the data and the reported findings; however, neither the Centers of Excellence, COE host District, California Community Colleges Chancellor’s Office, nor San Diego Workforce Partnership are responsible for applications or decisions made by recipient community colleges or their representatives based upon components or recommendations contained in this study.

Appendix B: Small Businesses by Sector

The following are the web-links to the research briefs that summarize survey findings for each of the priority and emergent sectors:

[Sector Research Brief: Workforce Needs of Small Businesses in Advanced Manufacturing](http://bit.ly/1ku2TaD)
(<http://bit.ly/1ku2TaD>)

[Sector Research Brief: Workforce Needs of Small Businesses in Advanced Transportation](http://bit.ly/1Q5XkfK)
(<http://bit.ly/1Q5XkfK>)

[Sector Research Brief: Workforce Needs of Small Businesses in Life Sciences/Biotechnology](http://bit.ly/1l8siHw)
(<http://bit.ly/1l8siHw>)

[Sector Research Brief: Workforce Needs of Small Businesses Engaged in Global Trade](http://bit.ly/1kbPaWt)
(<http://bit.ly/1kbPaWt>)

[Sector Research Brief: Workforce Needs of Small Businesses in Health Care](http://bit.ly/1Hs7KOS)
(<http://bit.ly/1Hs7KOS>)

[Sector Research Brief: Workforce Needs of Small Businesses in Information & Communication Technologies](http://bit.ly/1NQEmq9)
(<http://bit.ly/1NQEmq9>)

Appendix C: Detailed Statistics on Employee Proficiencies

The following table offers a detailed look at the responses employers gave when rating the skills of their employees. They rated their employees on a 0-100 scale where 0 was the lowest and 100 was the highest (Tables C1 and C2).

Table C1. Level of Employee Technical Proficiency Scores

	Level of Technical Proficiency for:								
	Industry	Occupation	Computer Skills	Written & Oral Comm. Skills	Work Ethic	Accounting	IT	Social Media	Exports
Poor (0-25)	3%	4%	2%	2%	2%	5%	5%	11%	22%
Fair (26-50)	8%	8%	10%	12%	8%	18%	17%	15%	31%
Good (51-75)	20%	19%	22%	29%	16%	23%	34%	30%	20%
Very Good (76-100)	69%	69%	66%	57%	74%	54%	44%	44%	27%

Table C2. Full Descriptive Statistics for Level of Technical Proficiency

	Level of Technical Proficiency for:								
	Industry	Occupation	Computer Skills	Written & Oral Comm. Skills	Work Ethic	Accounting	IT	Social Media	Exports
Mean/Average	78	79	79	76	83	72	70	66	51
Median	82	83	85	80	90	80	72	73	50
Mode	100	100	100	100	100	100	100	100	0
St. Dev	20	21	20	21	20	24	23	26	31
Min	0	0	0	7	9	0	7	0	0
Max	100	100	100	100	100	100	100	100	100
25 th Percentile	70	70	70	62	75	54	54	50	30
75 th Percentile	92	94	95	92	99	93	90	87	77
IQR* (75 th - 25 th)	22	24	25	30	24	39	36	37	47

*IQR= Interquartile Range. The difference between the 75th and & 25th percentiles gives a better idea of the range since it is less affected by outliers.

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