

# INTRODUCTION BACKGROUND

# CONTRIBUTION OF FOREIGN-OWNED FNTERPRISES

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www.LAEDC.org

June 2017

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## CLUSTERING ANALYSIS

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# INTRODUCTION BACKGROUND

# SPECIAL ACKNOWLEDGMENT

This research was made possible with the generous support of LA County Center for International Trade and Development.



# RIBUTION OF FOREIGN-OWNED

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#### **FOREIGN DIRECT INVESTMENT 2016**

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### CLUSTERING ANALYSIS

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# BACKGROUND

# **EXECUTIVE SUMMARY**

Globalization and trade have recently reemerged as hot political topics in the US. Nonetheless, international trade and inbound foreign direct investment remain critical to the Southern California region.

In June 2016, the World Trade Center Los Angeles (WTCLA) and the Los Angeles Economic Development Corporation (LAEDC) released a study on the economic impact of foreign direct investment (FDI) on Southern California, focusing on the number of foreign-owned enterprises (FOEs) in the six counties that make-up Southern California (Los Angeles, San Diego, Orange, Ventura, San Bernardino, and Riverside).

This report builds upon an LAEDC analysis of foreign direct investment in Southern California released in 2016 by:

- Updating the contribution of foreign-owned enterprises to the region in terms of Jobs, Firms, and Wages.
- Analyzing changes over time, especially year-on-year changes between 2015 and 2016.
- Examining clustering by foreign-owned enterprises with respect to source nation and industry.
- Gaining insights into the perspective of foreign-owned enterprises through a survey.

# CONTRIBUTION OF FOREIGN-OWNED ENTERPRISES

As shown in Tables ES-1 and ES-2, there are now an estimated \$1.6. foreign-owned firms in Southern Calif. In a recressinting 1.2.5 of all firms in collection, the southern of the recommendation in wares.

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## **SURVEY ANALYSIS**

INTRODUCTION
The majority of respondents were positive about their business experiences within Southern California, reflecting findings from a similar survey conducted by LAEDC in 2009. In the 2017 survey, 81% of respondents reported their experiences within Southern California as "Good" or "Satisfactory", while only 4% stated their experiences were "Poor" or "Unsatisfactory".

In the 2009 report, greatest concern among respondents was the negative economic climate at the time. However, other areas of concern included housing affordability, public safety/ crime, commercial and industrial prices and availability, energy supply and prices, labor costs, obtaining skilled employees, K-12 education quality, business taxes, and regulatory environment/permit procedures. The 2017 survey found that the most pressing risk factors in general for respondents were customer satisfaction/retention, labor and HR issues, political and regulatory uncertainty, currency volatility, and tougher competition. Specific to business within Southern California, respondents reported concern over trade and investment restrictions, delays for business visas for overseas visas, taxes, labor costs, and housing affordability.

**TABLE ES-1** Top 10 Southern California FOEs by Source Nation

Rank	County	Jobs	% of All FOE Jobs	Firms	Est. Wages (\$millions)
1	Japan	87,247	19.9%	2,465	\$5,513
2	United Kingdom	66,366	15.1%	1,089	\$3,747
3	Canada	39,798	9.1%	858	\$2,655
4	France	35,981	8.2%	689	\$2,369
5	Germany	34,141	7.8%	858	\$2,047
6	Switzerland	24,675	5.6%	387	\$1,843
7	Sweden	23,177	5.3%	121	\$1,021
8	Ireland	20,985	4.8%	203	\$1,368
9	China	11,221	2.6%	323	\$726
10	Netherlands	11,104	2.5%	216	\$727
	All Others	84,406	19.2%	2,755	\$5,412
	Total	439.101	100.0%	9.964	\$27,428

Source: Dun & Bradstreet, CA EDD; LAEDC analysis

Similar to the 2009 survey, when considering future investments, expansions of current facilities and growth into new facilities are the most popular. A larger proportion of respondents in 2017 appear to be considering relocation. In terms of potential for new investment, of those responding, most are considering Los Angeles County, followed by San Diego County, and Orange County. Within other areas of California, the Bay Area is the most popular response. Outside of California, investment potential is spread across the US, with a slight preference for the states of Texas, New York, Hawaii, Nevada, and Florida. Outside the US, Asian countries were significantly the most popular potential market, followed by Canada and Europe.

WTCLA and DHEI were keen to understand which key initiatives and programs state, regional, and local governments could implement to better support FOEs in Southern California. The most popular regional programs were "Economic reports on local markets", followed by "Public road network investment", "Training and workshops on doing business in Southern California (export training, etc...)" and "Workforce development initiatives, such as job-training, layoff support".

**TABLE ES-2** Southern California FOEs by Destination County

Rank	County	Jobs	% of All FOE Jobs	Firms	Est. Wages (\$millions)
1	Los Angeles	212,512	48.4%	4,682	\$13,248
2	Orange	114,001	26.0%	1,998	\$7,103
3	San Diego	58,076	13.2%	1,619	\$3,659
4	San Bernardino	21,596	4.9%	726	\$1,325
5	Riverside	16,211	3.7%	561	\$1,017
6	Ventura	16,705	3.8%	378	\$1,077
	Total	439,101	100.0%	9,964	\$27,428

Source: Dun & Bradstreet, CA EDD, DHEI Analysis

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This research project aims to inform policy makers and stakeholders related to foreign-owned enterprises in Southern California, and highlight the importance of these 9,000+ businesses to the regional economy. This report also aims to better-understand the motivations for foreign firms locating in Southern California, the experiences of foreign firms doing business here, and which factors encourage foreign firms to continue a presence the region.

Spatial agglomeration refers to the clustering of firms within a particular location. Firms locate nearby one another – for example car dealerships, jewelry or fashion districts, or furniture stores – for many reasons, including being attractive to customers and workers from similar firms, being close to supply chains, and to be in ethnically familiar neighborhoods. For Southern California, spatial agglomeration is higher when it is based on industrial sector than when it is based on country of origin. This suggests that firms might be more likely to locate close to another firm in the same sector than to another firm from the same country of origin.

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#### INTRODUCTION

### **BACKGROUND**

To understand Foreign Direct Investment, scholars often explore the motivations for, and impacts of, cross-border business investments. This could include foreign firms investing in the U.S. to gain market access, benefit from technology spillovers, or recruit high-skilled U.S. workers. The clustering or agglomeration of industries can also influence the location choices of businesses. Central to this issue is a tension between firms wanting to gain as much market coverage as possible – a Starbucks on every corner – and businesses locating close to one another – for example jewelry districts or car dealership clusters – to benefit from lower transaction costs for customers, and knowledge and technology spillovers between firms. This analysis can provide insight into the influence of clustering and agglomeration on investment decisions.

Why are firms choosing Southern California for their business investments?

Let us take the perspective of a foreign firm that has unique products or production techniques and has out-grown its domestic market. Southern California clearly offers a myriad of benefits for our foreign business seeking to gain a foothold in the lucrative U.S. market. Our firm has likely already gained some knowledge of the region by exporting through the largest twin ports in the U.S. (Fosfuri, Motta, and Ronde, 2001). Proximity to input material and transportation hubs available in Southern California is also important in location choices, particularly for those industries sensitive to transportation costs (see Rosenthal, 2001 and Shaver and Flyer, 2000).

Foreign investments are often located as close to home as possible (Halvorsen, 2012). If our firm is from a Pacific Rim nation, they are more likely to investment in Pacific Rim states such as California given lower international transport costs, greater cultural connections and more expats from Pacific Rim countries. Foreign firms also succeed more in regions where the proportion of foreign owned businesses are higher and invest a greater amount into productivity enhancing activities (Girma, et al., 2013). Firms have been found to locate initially closer to home, and later disperse throughout the whole country. Behind this dispersion effect are pull factors that draw foreign-owned firms away from California, such

as tax incentives, labor costs, costs of business, and regulatory environment.

Southern California is also appealing to our example firm because of the diverse and high-skilled workforce living in a region with obvious lifestyle benefits. Firms with more sophisticated technologies in place benefit from the spillover effects of agglomeration through improved access to educated workforce and proximity to input supply chains (Shaver and Flyer, 2000). Workers trained in new technologies retain their knowledge as they decide to remain in their current organization or choose to move to a local competitor (Girma, Gong, Gorg, and Lancheros, 2015). Rosenthal (2001) found that industries with a high reliance on skilled labor also have a higher propensity to cluster at all geographic levels. This all suggests that Southern California is particularly appealing to developed businesses.

This report is particularly interested in the benefits that foreign inbound investment can bring to Southern California. Many studies find positive impacts to host regions in terms of increased wages (Aitken et al, 1996), employment opportunities and the spillover effects of local companies learning from foreign producers located in the region (Gorg and Greenaway, 2004; Girma et al, 2015; Haskel, Pereira and Slaughter, 2007).

Although the determinants of FDI have been studied extensively in the academic literature (see Blomstrom, Kokko and Globerman, 2001 and Neilsen, Asmussen and Weatherall, 2017 for notable literature reviews), there has been limited research on the macroeconomic impacts of inbound FDI on U.S. regional economies. Moreover, there have been few studies of the economic impacts of inbound FDI in the U.S. (Mérette, Papadaki, Hernandez, & Lan, 2008 is a notable exception), and the authors could find no examples of analyses examining the economic impacts of inbound FDI on sub-national regions, such as the South Bay. Industry agglomeration is most notable at the state level and reduces in industry concentration at lower levels (Ellison & Glaeser, 1997), highlighting the scope for contribution to the literature by looking at the regional level.

### CONTRIBUTION OF FOREIGN-OWNED

**ENTERPRISES** 

As shown in Tables ES-1 and ES-2, there are now an estimated Nearly half of these firms and jobs are located in Los Angeles 9.16.1 for eign-owned firms in Southern Calif. In a re-resinting County, vitrour high County Counting for close to one quarter.

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## Has this contribution changed over time, and what does this tell us about future trends? This report analyzes the

changes over time, including year-on-year changes for Southern California with respect to economic sectors. Spatial application refers to the clustering of firms within countries, and ource nations and longer term changes a particular location ource nations and onger term changes a particular location of the clustering of the countries are perfectly and allocate nearby and allocation of the furnity of the cardealerships in which allocates are perfectly and allocations about the furnity of the cardealerships in changes in a cluster of the furnity of the cardealerships in any longer in cluding he inguity attactive to customers and workers from similar firms, being close to supply by are from schools in a chooling in the countries of the countries

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First, a survey of FOEs was administered, asking questions about motivations for entering and remaining in the region, plans for investment and relocation, business risks and concerns, connections to the region and other institutions, and which regional programs would be most beneficial. The response rate to the survey was 1-2%, which is not uncommon for large-scale business surveys, and the

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 Second, agglomeration and clustering effects identify the locational connections between companies. The literature review highlighted the importance of understanding the intersection between inbound FDI and agglomeration effects, especially with respect to economic sector and

especially with respect to economic sector and by Taiwan and Switzerland, when measure in terms of the number of source hadition. The report studies agglomerations number of employees firms from Sweden, China, and Switzerland show the highest levels in Southern Capts, with respect to show the highest levels in Southern Capts in the relative densities

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# INTRODUCTION BACKGROUND

# SOUTHERN CALIFORNIA AND FOREIGN INVESTMENT

# CONTRIBUTION OF FOREIGN-OWNED ENTERPRISES

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TABLE 1
Southern California FOEs by Destination County, 2016

Rank	County	Jobs	% of All FOE Jobs	Firms	(\$millions)
1 Of the	Los Angeles top 10 firms by er Grange e Netherlands dec	, -	48.4% t in 2016, o	4,682 only Swit	\$13,248 zerland
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TABLE 2 Southern California FOEs by Source Nation, 2016

INTROD <mark>&amp;**TI</mark>	NSource Nation	Jobs	% of All FOE Jobs	Firms	Est. Wages (\$millions)	Employment Per Firm	Ave Wage Per Emp
	Japan	87,247	19.9%	2,465	\$5,513	35.4	\$63,186
BACK	United Kingdom	66,366	15.1%	1,089	\$3,747	60.9	\$56,459
3	Canada	39,798	9.1%	858	\$2,655	46.4	\$66,724
4	France	35,981	8.2%	689	\$2,369	52.2	\$65,834
5	Germany	34,141	7.8%	858	\$2,047	39.8	\$59,971
6	Switzerland	24,675	5.6%	387	\$1,843	63.8	\$74,684
7	Sweden	23,177	5.3%	121	\$1,021	191.5	\$44,046
8	Ireland	20,985	4.8%	203	\$1,368	103.4	\$65,210
9	China	11,221	2.6%	323	\$726	34.7	\$64,695
10	Netherlands	11,104	2.5%	216	\$727	51.4	\$65,463
11	Taiwan	8,035	1.8%	257	\$551	31.3	\$68,602
12	Australia	7,569	1.7%	202	\$501	37.5	\$66,170
13	Republic Of Korea	7,464	1.7%	262	\$476	28.5	\$63,742
14	Spain	6,764	1.5%	116	\$441	58.3	\$65,255
15	Mexico	6,673	1.5%	254	\$405	26.3	\$60,623
16	Luxembourg	4,734	1.1%	332	\$230	14.3	\$48,632
17	Israel	4,495	1.0%	53	\$311	84.8	\$69,288
18	India	3,535	0.8%	108	\$237	32.7	\$66,928
19	Singapore	3,314	0.8%	71	\$227	46.7	\$68,502
20	Kazakhstan	3,298	0.8%	7	\$262	471.1	\$79,303
21	Italy	3,096	0.7%	152	\$153	20.4	\$49,430
22	Belgium	2,834	0.6%	72	\$184	39.4	\$64,860
23	Cayman Islands	2,745	0.6%	33	\$184	83.2	\$66,983
24	Hong Kong	2,286	0.5%	94	\$152	24.3	\$66,364
25	Rest of World	17,564	4.0%	742	\$1,099	23.7	\$62,562
	Total	439,101	100.0%	9,964	\$27,428	44.1	\$62,465

Source: Dun & Bradstreet, CA EDD, DHEI Analysis

## CONTRIBUTION OF FOREIGN-OWNED ENTERPRI

As shown in Tables ES-1 and ES-2, there are now an estimated Nearly half of these firms and jobs are located in Los Angeles foreign-owned firms in Southern Californ a regressinting County, with Orange County accounting for close to one quarter. Retail no whole all trade continue to be largest sectors for the

1 25 of all firms in \$1.200. Tak 30 ft. in the 1200.

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Retail inc whole all trade continue to be largest sectors for the employees, or 4.3% of the region by the respectively – Signature (1.200 the region by 1.200 the respectively – with manufacturing the largest sector in terms of employment – with manufacturing the largest sector in terms of employment – 20.7 billion 140,582 jobs - and total estimate wages - \$9.7 billion

Janana Farilly as remain the largest equiributor to Southern calife mi, 1 h 1, 1 5 firms maying 87 !4 Av ork more to a 6.5 billion. U.K. Sahada, Filip to in 6 de limit, Southern to a 6.5 source harront updates the 2015 report FDI-related statistics

n ei n rof number o fir n pobs, and wages. Dun & Br d tree firm lev Loat Let eved in March 2017 is

complemented with California Employment Department data on wages to estimate for it were so that the control of the period, the number of foreign-owned enterprises in Southern California increased by 8.59, with total jobs increasing by Between 2015 and 2016 for increasing by Between 2015 and 2016 for increasing by With total jobs increasing by Between 2015 and promote increasing by Between 2015 and promote increasing multiple and the average number of Jobs per firm increasing enterprises of some enter 13,568 (+34%), followed by Sweden, 12,915 (+56%), and the United Kingdom, 11,456 (+17%).

It is notable that despite the UK, France and China decreasing in terms of the number of firms, the number of employees increased for firms from all three countries. In fact, of the Spatial agglomeration refers to the clustering of firms within a particular location. Firms locate nearby one another - for example car dealerships, jewelry or fashion districts, or furniture stores – for many reasons, including being attractive to customers and workers from similar firms, being close to supply chains, and to be in ethnically familiar neighborhoods. For Southern California, spatial agglomeration is higher when it is based on industrial sector than when it is based on country of origin. This suggests that firms might be more likely to locate close to another firm in the same sector than to another firm from the same country of origin.

For industries with a large number of firms, Financial Services and Professional and Business Services are the industries with the highest level of spatial agglomeration. When spatial agglomeration is measured with respect to the number of firms, Korea shows the highest levels in Southern California, followed

top 10 firms by employment in 2016, only Switzerland and the Netherlands declined in employment. Collectively, this demonstrates the strong and growing contribution of foreign-of the top 10 firms by employment in 2016, only Switzerland owned firms to the region, and the Netherlands declined in employment. Collectively, this Serchogsovath is the secretary and grown long general periods for ignored source frations: Between 2007 and 2015 for Los Angeles County, there were significant increases in the number of employees, with total employees of foreign-owned firms increasing by 41.427. However, there intervening years does appear to have seen a period of consolidation as the number of firms decreased for most source nations and by 254 in total.

by Taiwan and Switzerland. When measure in terms of the number of employees, firms from Sweden, China, and Switzerland show the highest levels in Southern California.

TABLE 3
Change in FOEs by Source Nation, Between 2015-2016

NTRODU	CSpuige Nation	Change in Jobs	Change in % of All FOE Jobs	Change in Firms	Change in Jobs per Firm
	Japan	+7,826	-1.83%	+25	+2.9
BAC	United Kingdom	+11,456	+0.11%	-46	+12.9
	Canada	+13,568	+1.86%	+115	+11.1
	France	+3,423	-0.71%	+83	-1.5
	Germany	+1,547	-1.12%	+33	+0.3
	Switzerland	-403	-1.18%	+17	-4.0
	Sweden	+12,915	+2.48%	-8	+111.9
	Ireland	+643	-0.82%	+50	-29.6
	China	+4,771	+0.76%	-17	+16.3
	Netherlands	-3,008	-1.37%	+19	-732.6
	Taiwan	+788	-0.17%	+35	-1.3
	Australia	-83	-0.38%	+11	-2.6
	Republic Of Korea	-100	-0.40%	+29	-4.0
	Spain	+2,588	+0.44%	+24	+12.9
	Mexico	+1,286	+0.02%	+27	+2.6
	Luxembourg	-136	-0.22%	+20	-1.3
	Israel	+221	-0.18%	+8	-10.2
	India	+653	+0.01%	+22	-0.8
	Singapore	+1,323	+0.25%	+30	-1.9
	Kazakhstan	N/A	N/A	N/A	N/A
	Italy	+389	+0.01%	+2	+2.4
	Belgium	+296	-0.05%	+20	-9.4
	Cayman Islands	N/A	N/A	N/A	N/A
	Hong Kong	+116	-0.08%	+12	-2.2
	Rest of World	+9,580	+1.80%	+390	+1.0
	Total	+72,686	1	+859	+3.9

Source: Dun & Bradstreet, CA EDD, LAEDC Analysis, DHEI Analysis

# CONTRIBUTION OF FOREIGN-OWNED ENTERPRISES

Nearly half of these firms and jobs are located in Los Angeles As shown in Tables ES-1 and ES-2, there are now an estimated 6 regn-owned firms in Southern Calif in a re resenting County, with Orange County accounting for close to one quarter. Change in the Employment, Number of Firms, and Total Wages by Source Nation for Top-10 Foreign-Owned Retail no Wille at trade continue to be largest sectors for the emples in southern Galifornia 2975 2016 d 3 v them 327 4 number of foreign swined imms - 2,351 and 1,695 respectively billion in wages. with Change factive in 2015 la 2006 t sector in terms of employment -This report explores numerous research questions, including Hanay 140,582 jobs - and total estimate wages - S9 hanay 140,582 jobs - and total estimate wages - S9 hanay 1840,582 jobs - and total estimate wages - S9 hanay 1840,582 jobs - and total estimate wages - S9 hanay 1840,582 jobs - and total estimate wages - S9 hanay 1840,582 jobs - and total estimate wages - S9 hanay 1840,582 jobs - and total estimate wages - S9 hanay 1840,582 jobs - and total estimate wages - S9 hanay 1840,582 jobs - and total estimate wages - S9 hanay 1840,582 jobs - and total estimate wages - S9 hanay 1840,582 jobs - and total estimate wages - S9 hanay 1840,582 jobs - and total estimate wages - S9 hanay 1840,582 jobs - and total estimate wages - S9 hanay 1840,582 jobs - and total estimate wages - S9 hanay 1840,582 jobs - and total estimate wages - S9 hanay 1840,582 jobs - and total estimate wages - S9 hanay 1840,582 jobs - and total estimate wages - S9 hanay 1840,582 jobs - and total estimate wages - S9 hanay 1840,582 jobs - and total estimate wages - S9 hanay 1840,582 jobs - and total estimate wages - S9 hanay 1840,582 jobs - and total estimate wages - S9 hanay 1840,582 jobs - and total estimate wages - S9 hanay 1840,582 jobs - and total estimate wages - S9 hanay 1840,582 jobs - and total estimate wages - S9 hanay 1840,582 jobs - and total estimate wages - S9 hanay 1840,582 jobs - and total estimate wages - S9 hanay 1840,582 jobs - and total estimate wages - S9 hanay 1840,582 jobs - and total estimate wages - S9 hanay 1840,582 jobs - and total estimate wages - S9 hanay 1840,582 jobs - and total estimate wages - S9 hanay 1840,582 jobs - and total estimate wages - S9 hanay 1840,582 jobs - and total estimate wages - S9 hanay 1840,582 jobs - and total estimate wages - S9 hanay 1840,582 jobs - and total estimate wages - S9 hanay 1840,582 jobs - and total estimate wages - S9 hanay 1840,582 jobs - and total estimate wages - S9 hanay 1840,582 jobs - and total estimate wages - S9 hanay 1840,582 jobs - and total estimate wages - S9 hanay 1840,582 jobs - and total estimate wages - S9 hanay 1840,582 jobs billion tre, in the day France and Generally Southern California? source is a local of \$5.5 source in the control of \$5.5 source is a local of \$5.5 % Change Rank Change Level Change %Change in terms of number of firms, jobs, and wages. Dun 8 +9% 0 +25 +1% <sup>1</sup>Bradstreet firm-level data retrieved in March 2017 is zomplemented with California Ermiloymen De Chopm. Department data on wages to estimate to mw. g. s.fo. +17% 0 -56 -5% 3different categories. Quada Bradstreet data only snows 19,568 +34% +115 +13% ultimate ownership of firms above a ten percent threshold Betweend 2001-5 and 2001-6 elid blickation whicher the writed is the +3,423 Of the top 10 firms by employment in 2016, only Switzer and enterprises of southern Qatequipitinor a suctoff 50, with street and the Netherlands declined in employment. Collectively, this jobs increasing the 17/20 68st annual the range open unaberuch jobs jobs demonstrates the strong and growing contribution of foreignfirm inone awaige so des Oribeaditzethaisdr owned fights to the region. 7 -7% +2 +12,915 +56% -8 Sweden -6 +1 +50 +25% -1 -17 -5% Spatial agglomeration refers to the clustering of firms within -3,008 by Taiwan and Switzerland. When measure in terms of the

a particular location. Firms locate nearby one another – for example car dealerships, jewelry or fashion districts, or furniture stores – for many reasons, including being attractive to customers and workers from similar firms, being close to supply chains, and to be in ethnically familiar neighborhoods. For Southern California, spatial agglomeration is higher when it is based on industrial sector than when it is based on country of origin. This suggests that firms might be more likely to locate close to another firm in the same sector than to another firm from the same country of origin.

For industries with a large number of firms, Financial Services and Professional and Business Services are the industries with the highest level of spatial agglomeration. When spatial agglomeration is measured with respect to the number of firms, Korea shows the highest levels in Southern California, followed

number of employees, firms from Sweden, China, and Switzerland Source: DHEI analysis hased on LAEDC (2016) and Dun & Bradstreet data Show the highest levels in Southern California.

**TABLE 5**Change in Firms, Jobs, and Wages by Sector, 2015-2016

		2016		Change (20	15-2016)
TRODUCTION Sector	Jobs	Firms	Est. Wages (\$millions)	Jobs	Firms
Natural Resources - P	2,260	48	\$182.6	+433	+7
Construction	5,047	146	\$295.1	-527	+22
Manufacturing	140,582	1,481	\$9,714.2	+23,861	+165
Wholesale Trade	56,842	1,695	\$4,045.7	+8,229	+146
Retail Trade	40,253	2,351	\$1,229.7	+4,113	+238
Transportation, Warehousing and Utilities	22,749	489	\$1,234.3	+2,001	+29
Information	19,907	523	\$1,158.3	+2,163	+14
Financial Activities	43,496	1,168	\$3,767.5	+5,219	+19
Professional and Business Services	78,373	1,232	\$4,551.0	+27,151	+165
Education and Health Care	5,992	239	\$354.4	-701	+14
Leisure and Hospitality	15,339	309	\$473.4	-2,027	-15
Other Services	6,361	177	\$283.8	+2,414	+12
Public Administration	1,900	106	\$138.1	+357	+43
Total	439,101	9,964	\$27,428.3	+72,686	+859

Source: Dun & Bradstreet, CA EDD, LAEDC Analysis, DHEI Analysis

TABLE 6
Change in Jobs and Firms by County, 2015-2016

County	Jobs	% of all FOE Jobs	Firms
Los Angeles	+35,085	-0.03%	+315
Orange	+29,859	3.00%	+186
San Diego	+3,333	-1.71%	+188
San Bernardino	+1,073	-0.68%	+72
Riverside	+213	-0.67%	+59
Ventura	+3,123	0.10%	+39
Total	72,686	0.00%	859

Source: Dun & Bradstreet, CA EDD, LAEDC Analysis, DHEI Analysis

# CONTRIBUTION OF FOREIGN-OWNED ENTERPRISES

As shown in Tables ES-1 and ES-2, there are now an estimated 9.6. foreign-owned firms in Southern Califfornia representing 1.25 of all firms in 10-27, or the southern Califfornia representing employees, or 4.3% of the region of vorters and by vithem \$27.4 billion in wages.

This report explores numerous research questions, including whom exertings demands the large streamtributor and Southern California, with 2,465 firms paying 87,247 workers a total of \$5.5 billion. Unk, icanada, Francte and Germany Southern California? source this report undates the 2015 report EDI-related statistics.

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Nearly half of these firms and jobs are ocated in Los Angeles County, with Orange County accounting for close to one quarter.

Retail no whole all trade continue to be largest sectors for the number of foleign which imms – 2,351 and 1,695 respectively – with manufacturing the largest sector in terms of employment – 140,582 jobs – and total estimate wages – \$9.7 billion.

Of the top 10 firms by employment in 2016, only Switzerland and the Netherlands declined in employment. Collectively, this demonstrates the strong and growing contribution of foreignowned firms to the region.

### **CLUSTERING ANALYSIS**

Spatial agglomeration refers to the clustering of firms within a particular location. Firms locate nearby one another – for example car dealerships, jewelry or fashion districts, or furniture stores – for many reasons, including being attractive to customers and workers from similar firms, being close to supply chains, and to be in ethnically familiar neighborhoods. For Southern California, spatial agglomeration is higher when it is based on industrial sector than when it is based on country of origin. This suggests that firms might be more likely to locate close to another firm in the same sector than to another firm from the same country of origin.

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by Taiwan and Switzerland. When measure in terms of the number of employees, firms from Sweden, China, and Switzerland show the highest levels in Southern California.



### **FOREIGN-OWNED ENTERPRISES (FOEs)**

**FOE JOBS** 

439,101

**FOE FIRMS** 

9,964

**ESTIMATED WAGES** 

\$27.4B

#### **FOES BY SOURCE NATION**

Rank	Source Nation	Jobs	% of All FOE Jobs	Firms	Est. Wages (\$millions)
1	Japan	87,247	19.9%	2,46	\$5,512.8
2	United Kingdom	66,366	15.1%	1,089	\$3,747.0
3	Canada	39,798	9.1%	858	\$2,655.5
4	France	35,981	8.2%	689	\$2,368.8
5	Germany	34,141	7.8%	858	\$2,047.5
6	Switzerland	24,675	5.6%	387	\$1,842.8
7	Sweden	23,177	5.3%	121	\$1,020.8
8	Ireland	20,985	4.8%	203	\$1,368.4
9	China	11,221	2.6%	323	\$725.9
10	Netherlands	11,104	2.5%	216	\$726.9
	All Others	84,406	19.2%	2,755	\$5,411.8
	Total	439,101	100.0%	9,964	\$27,428.3

Source: Dun & Bradstreet, CA EDD, DHEI Analysis

#### **FOES BY INDUSTRY SECTOR**

Sector	Jobs	Firms	Est. Wages (\$millions)
Natural Resources	2,260	48	\$182.6
Construction	5,047	146	\$295.1
Manufacturing	140,582	1,481	\$9,714.2
Wholesale Trade	56,842	1,695	\$4,045.7
Retail Trade	40,253	2,351	\$1,229.7
Transp, Warehousing, Utilities	22,749	489	\$1,234.3
Information	19,907	523	\$1,158.3
Financial Activities	43,496	1,168	\$3,767.5
Prof / Business Services	78,373	1,232	\$4,551.0
Education / Health Care	5,992	239	\$354.4
Leisure / Hospitality	15,339	309	\$473.4
Other Services	6,361	177	\$283.8
Public Administration	1,900	106	\$138.1
Total	439,101	9,964	\$27,428.3

Source: Dun & Bradstreet, CA EDD, LAEDC Analysis, DHEI Analysis

# NTREDSTANGFLESSEIGN-OWNED REDUNCTION OF THE STANGE OF THE

As shown in Tables ES-1 and ES-2, there are now an estimated 9.6, for reign-owned firms in Southern Calif for a representing 1.2 s. of all firms in coarcounting in a representing 1.2 s. of all firms in coarcounting for close to one quarter.

Retail no whole all trade continue to be largest sectors for the number of foreign-owned imms – 2,351 and 1,695 respectively –

billion in wages.

This report explores numerous research questions, including FORE (Green Including the table to 19 4 to 20 to 10 to

California, with 2,465 firms paying 87,247 workers a total of \$5.5 billion. Dock is the contribution of Generally Southern California?

FOE JOBS urce his front updates the 2015 report FDL related statistics in terms of number of firms, jobs, and wages. Dun &

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ultimate ownership of firms above a ten percent threshold,

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jobs increasing the 7/21,68% and the range gentur Aberuch jobs jobs Rank source and the graph of the jobs Firms Est. Wages (\$millions)

1	Japan	45,157	21.2%	1,233	\$2,813.9		
2	United Kingdom	26,963	12.7%	491	\$1,621.3		
3	Sweden	17,818	8.4%	54	\$756.1		
4	Canada Spatial agglor	17,710 neration refers	8.3% to the clus	330 tering of firm	\$1,208.9 s within		
5	Gænpræmtiycular lo	Gærpæmijcular locatiófi.87≩ms locatoñiearby on⊗another – \$0,45.6					
6	example car dealerships, jewelry or fashion districts, or Switzerland 15,672 7.4% 173 \$1,218.6 furniture stores – for many reasons, including being attractive						
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8	supply chains, and to be in ethnically familiar neighborhoods. Ireland For Southern California, spatial agglomeration is higher when it						

TEQT industries with a large number of firms, higgs cial Services as the industries with the highest level எத்தைய்கள் இது வக்கும் AWD நாகு அவிவுரும் agglement of highest level எத்தைய்கள் முற்ற கூடியில் வரும் முற்ற கூடியில் வரும் வரும் முற்ற கூடியில் வரும் கூடியில் கூடியில் வரும் கூடியில் கூடியில் வரும் கூடியில் வரும் கூடியில் வரும் கூடியில் வரும் கூடியில் கூடியில் வரும் கூடியில் வரும் கூடியில் கூடியில் வரும் கூடியில் கூடியில

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of origin. This suggests that firms might be more likely to locate

**ESTIMATED WAGES** 

\$13.2B

academic literature.

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with manufacturing the largest sector in terms of employment – 40,582 jobs – and total estimate wages – \$9.7 billion.

wii <b>sector</b> iis to the region.	2002	FIIIIS	(\$millions)
Natural Resources	755	17	\$65.8
Construction	2,337	64	\$140.7
Manufacturing	44,823	514	\$3,097.3
Wholesale Trade	26,619	813	\$1,894.6

by Takkih Tank Switzerland. When measure in termis of the \$525.2 number of marking furnished Switzerland? Sweden, Chinagand Switzerland? show the highest levels in Southern California. 1287 \$935.0 Statistical correlation analysis reveals that cities with relative 143.6 high concentrations of FOEs have statistically larger labor prof / Business Services have statistically larger labor forces and lower unemployment rates. At the same time, FOEs in these stores have statistically higher sales, more workers, \$80.6 higher sales with lower concentration. The statistical analysis also Other Services with lower concentration. The statistical analysis also other services suggests that spatial agglomeration based on sector might have liable with lower conomic development and growth than 5 spatial agglomeration based on country of origin, These findings, 5 suggest that Southern California might have more to offer to

prospective of Goes thank hara decement poevious ly Algeotifications to be let Analysis



### **FOREIGN-OWNED ENTERPRISES (FOEs)**

**FOE JOBS** 

114,001

**FOE FIRMS** 

1,998

**ESTIMATED WAGES** 

\$7.1B

#### **FOES BY SOURCE NATION**

Rank	Source Nation	Jobs	% of All FOE Jobs	Firms	Est. Wages (\$millions)	
1	United Kingdom	23,748	20.8%	202	\$1,181.2	
2	Japan	22,806	20.0%	545	\$1,449.7	
3	Canada	12,643	11.1%	166	\$837.3	
4	France	8,257	7.2%	134	\$557.2	
5	Germany	7,943	7.0%	181	\$495.3	
6	Ireland	7,329	6.4%	54	\$510.9	
7	China	5,959	5.2%	51	\$409.1	
8	Switzerland	3,172	2.8%	90	\$219.2	
9	Taiwan	2,858	2.5%	70	\$199.8	
10	Israel 2,592 2.39		2.3%	3% 13		
	All Other	16,694	14.6%	492	\$1,065.1	
	Total	114,001	100.0%	1,998	\$7,103.2	

Source: Dun & Bradstreet, CA EDD, DHEI Analysis

#### **FOES BY INDUSTRY SECTOR**

Sector	Jobs	Firms	Est. Wages (\$millions)
Natural Resources	92	6	\$5.4
Construction	1,050	28	\$61.4
Manufacturing	18,373	376	\$1,307.7
Wholesale Trade	45,263	387	\$3,127.7
Retail Trade	9,976	445	\$304.8
Transp, Warehousing, Utilities	908	41	\$41.2
Information	3,068	72	\$178.5
Financial Activities	5,048	221	\$422.0
Prof / Business Services	25,389	286	\$1,430.3
Education / Health Care	2,054	42	\$78.9
Leisure / Hospitality	1,346	46	\$71.6
Other Services	764	34	\$46.0
Public Administration	670	14	\$27.7
Total	114,001	1,998	\$7,103.2

Source: Dun & Bradstreet, CA EDD, LAEDC Analysis, DHEI Analysis

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As shown in Tables ES-1 and ES-2, there are now an estimated 6 foreign-owned firms in Southern Califirm a regres into g 1 23 of all firms in recersion, the string in the second control of the months of the

billion in wages.

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1	Japan	11,848	20.4%	407	\$783.0
2	United Kingdom	10,231	17.6%	222	\$622.7
3	Germany	4,833	8.3%	145	\$296.1
4	Canada Spatial anglop	4,576 peration refers	7.9%	160 ering of firm	\$311.5 s within

example car dealerships, jewelry or fashion districts, or France 4,018 6.9% furniture stores – for many reasons, including being attractive 6 Stroitzeustaortners and Wolfers from 55 Brailar firms, 65 Eing clos \$2203.4 7

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Sikebased on industrian sector than swhen it is based on country 9 of origin. This suggests that firms might be more likely to locate Spains to another firm in the same sector than 18 another firm 3

Afrom the same country of origin 6.2%

TEGI industries with a large number of firms, Financial Services 1 and Professional and Business Services are the industries with the highest level of smatipula and progration AWD progration levels agglomeration is measured with respect to the number of firms, Korea shows the highest levels in Southern California, followed

Nearly half of these firms and jobs are located in Los Angeles County, with Orange County accounting for close to one quarter.

Retail no whole all trade continue to be largest sectors for the number of foleign swied imms - 2,351 and 1,695 respectively with manufacturing the largest sector in terms of employment -140,582 jobs – and total estimate wages – \$9.7 billion.

#### **ESTIMATED WAGES**

Of the top 10 firms by employment in 2016, only Switzerland and FIDEN BY IN DUSTED IN SECTION DOWN MENT OF THE PROPERTY OF demonstrates the strong and growing contribution of foreign-Est. Wages ownsol-froms to the region

	3003	1 111113	(\$millions)
Natural Resources	389	4	\$28.4
Construction	1,201	18	\$32.8
Manufacturing	5,129	223	\$365.1
Wholesale Trade	24,892	284	\$1,720.0

by Takkan Ende Switzerland. When measure in teams of the \$222.2 number of analytesso fumsition Swedon, China and Switzerland show the highest levels in Southern California. \$65.7

Statistical correlation analysis reveals that cities with relatively 7 high concentrations of FOEs have statistically larger labor forces and lower unemployment rates. At the same time, FOEs in the sections have is carried to all y high each sales, most workers, and higherigiyear growth percentage in sales volume 4 than FOEs in 50.5 cities with lower concentration. The statistical analysis also other Services suggests that spatial agglomeration based on sector might have large 4 ministration economic development and growth that 0 spatial agglomeration based on country of origin. These findings suggest that Southern California might have more to offer to prospective of Goes than bas depent poever by Education of the control of the con academic literature.



### **FOREIGN-OWNED ENTERPRISES (FOEs)**

**FOE JOBS** 

21,596

**FOE FIRMS** 

**726** 

**ESTIMATED WAGES** 

\$1.3B

#### **FOES BY SOURCE NATION**

Rank	Source Nation	Jobs	% of All FOE Jobs	Firms	Est. Wages (\$millions)
1	Japan	2,969	13.7%	133	\$172.2
2	Canada	2,619	12.1%	89	\$167.1
3	France	2,363	10.9%	40	\$152.4
4	Germany	1,646	7.6%	68	\$89.0
5	United Kingdom	1,148	5.3%	49	\$62.1
6	Mexico	1,040	4.8%	35	\$62.1
7	Sweden	979	4.5%	13	\$44.1
8	Switzerland	872	4.0%	28	\$59.5
9	Australia	865	4.0%	15	\$59.6
10	Ireland	740	3.4%	16	\$51.5
	All Others	6,355	29.4%	240	\$405.2
	Total	21,596	100.0%	726	\$1,324.9

Source: Dun & Bradstreet, CA EDD, DHEI Analysis

#### **FOES BY INDUSTRY SECTOR**

Sector	Jobs	Firms	Est. Wages (\$millions)
Natural Resources	102	2	\$6.5
Construction	166	7	\$9.0
Manufacturing	4,194	136	\$298.5
Wholesale Trade	7,537	142	\$520.8
Retail Trade	2,730	200	\$83.4
Transp, Warehousing, Utilities	599	23	\$47.4
Information	1,082	29	\$44.7
Financial Activities	2,167	54	\$106.6
Prof / Business Services	22,626	799	\$1,400.5
Education / Health Care	920	18	\$51.6
Leisure / Hospitality	265	21	\$15.4
Other Services	138	15	\$6.2
Public Administration	666	6	\$59.1
Total	43,192	1,452	\$2,649.7

Source: Dun & Bradstreet, CA EDD, LAEDC Analysis, DHEI Analysis

## REPORT OF THE PROPERTY OF THE RCOUN

Nearly half of these firms and jobs are located in Los Angeles As shown in Tables ES-1 and ES-2, there are now an estimated foreign-owned firms in Southern Californ a regres inting County, with Orange County accounting for close to one quarter. 1 23 of all firms in coloring the strict in the second employees, or 4 3% of the region workers and by them \$27.4 Retail no whole all trade continue to be largest sectors for the number of foleign swied imms - 2,351 and 1,695 respectively -

billion in wages

This report explores numerous research questions, including FORE (Green Part) and the table at 12 ft 52 ft 12 ft 20 500 he (n FO

California, with 2,465 firms paying 87,247 workers a total of \$5.5 billion with 2,465 firms paying 87,247 workers a total of \$5.5 FOE JOB ource nations: updates the 2015 report FDI-related statistics in terms of number of firms, jobs, and wages. Dun &

Bradstreet firm-level data retrieved in March 2017 is complemented with Californ a trap or ment Decembers, examined to the complete control of the control of t

different categories. Dun & Bradstreet data only snows the ultimate ownership of firms above a ten percent threshold,

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FOEs BYeSQLIPRSUS MASTONENen Oraticourisation of easier expression in the stored of th jobs increasing the 72, best monther angrage murab auch jobs jobs

Rank	Sturce acceptable of	<b>e</b> ap <b>ole3e9t</b> spedi	FOE Jobs	Firms	(\$millions)		
1	Germany	2,353	14.5%	50	\$146.1		
2	Japan	2,018	12.4%	94	\$125.8		
3	United Kingdom	1,836	11.3%	71	\$101.7		
4	Switzerland Spatial agglo	1,645 meration refer	10.1% s to the clust	19 ering of firn	\$113.7 ns within		
5	Campadaticular location/4 478 rms locate 2% nearby one 75 mother − 15369.7						
6	example car dealerships, jewelry or fashion districts, or Sweden 1,450 8.9% 13 furniture stores – for many reasons, including being attractive						
7	Spaioustomers and W.O. Bleers from 65 17% ilar firms, 25 25 ing close\$122.0						
8	supply chains, and to be in ethnically familiar neighborhoods. Ireland \$7 \$53.2 For Southern California, spatial agglomeration is higher when it						
9	FignResed on industrial sector thanowhen it is based on country						
10	of origin. This Belgium close to anot	s suggests tha ner firm in the	t firms might same sector	be more lik than to ano	ely to locate ther firm <sup>6</sup>		
	Afrom the sam	e cownitagof o	rigiŋ <sub>:3.3%</sub>	157	\$134.2		

TEON industries with a large number of firms, Financial Services 6 and Professional and Business Services are the industries with the highest level of smatipula and progration AWD progration levels agglomeration is measured with respect to the number of firms, Korea shows the highest levels in Southern California, followed

**ESTIMATED WAGES** 

Of the top 10 firms by employment in 2016, only Switzerland and FIGE SIGNET NOW STEPS TO BE STORED TO STORE THE STORE STORE TO STORE THE STORE S demonstrates the strong and growing contribution of foreign-

with manufacturing the largest sector in terms of employment -140,582 jobs – and total estimate wages – \$9.7 billion.

wn <b>sectur</b> ms to the region.	Jobs	Firms	(\$millions)
Natural Resources	16,218	563	\$1,017.0
Construction	46	5	\$2.5
Manufacturing	1,326	82	\$94.4
Wholesale Trade	7,331	92	\$506.6
-B.: 3.T. 1	1 700 .	. 177 6	.ı

by Takkain Ende Switzerland. When medeline in terms of the \$52.6 number of analytesso fumsition Sweden, China and Switzerland show the highest levels in Southern California. Information 542 Statistical correlation analysis reveals that cities with relatively 5 high concentrations of FOEs have statistically larger labor forces and lower unemployment rates. At the same time, FOEs in the sections have is carried to all y high 27 sales, more workers, \$1706 higherigiyear growth percentage in sales volume than FOEs in 6.5 cities with lower concentration. The statistical analysis also Other Services suggests that spatial agglomeration based on sector might have leaving the first to be economic development and growth the same spatial agglomeration based on country of origin. These findings

suggest that Southern California might have more to offer to prospective of Goes than bas depent poever by Education of the control of the con academic literature.



### **FOREIGN-OWNED ENTERPRISES (FOEs)**

**FOE JOBS** 

16,705

**FOE FIRMS** 

378

**ESTIMATED WAGES** 

\$1.1B

#### **FOES BY SOURCE NATION**

Rank	Source Nation	Jobs	% of All FOE Jobs	Firms	Est. Wages (\$millions)
1	France	5,283	31.6%	28	\$360.0
2	Japan	2,449	14.7%	53	\$168.2
3	United Kingdom	2,440	14.6%	54	\$158.0
4	Germany	rmany 1,493 8.9		45 \$75.	
5	Ireland	1,027	6.1%	21	\$69.3
6	Canada	752	4.5%	40	\$41.0
7	Sweden	730	4.4%	8	\$34.3
8	Netherlands	587	3.5%	23	\$43.7
9	Republic of Korea	471	2.8%	5	\$30.9
10	Mexico	311	1.9%	13	\$21.9
	All Others	1,162	7.0%	88	\$74.2
	Total	16,705	100.0%	378	\$1,077.0

Source: Dun & Bradstreet, CA EDD, DHEI Analysis

#### **FOES BY INDUSTRY SECTOR**

Sector	Jobs	Firms	Est. Wages (\$millions)
Natural Resources	16,705	378	\$1,077.0
Construction	150	4	\$13.3
Manufacturing	10,736	62	\$741.9
Wholesale Trade	1,201	65	\$85.5
Retail Trade	1,362	98	\$41.6
Transp, Warehousing, Utilities	273	11	\$16.4
Information	191	19	\$11.1
Financial Activities	735	52	\$61.5
Prof / Business Services	1,444	41	\$80.5
Education / Health Care	134	7	\$7.2
Leisure / Hospitality	284	11	\$7.8
Other Services	164	5	\$8.9
Public Administration	31	3	\$1.4
Total	33,410	756	\$2,154.0

Source: Dun & Bradstreet, CA EDD, LAEDC Analysis, DHEI Analysis

# CONTRIBUTION OF FOREIGN-OWNED ENTERPRISES

As shown in Tables ES-1 and ES-2, there are now an estimated 9.6. If reign-owned firms in Southern Calify in a regression in government of the second of these firms and jobs are located in Los Angeles County, with Orange County accounting for close to one quarter.

1.2.5 of all firms in 10.25 to the second of the region of the second of

This report explores numerous research questions, including

California, with 2,465 firms paying 87,247 workers a total of \$5.5 billion box, is already, the factor of the fact

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in terms of number of mins, jobs, and wages. Dun a

in terms of number of mms, jobs, and wages. Jun & Bradstreet firm-level data retrieved in March 2017 is

complementables 7-10. ហេយាជនាខ-Solutham Californian counties by the FOE Departmentablings, រដ្ឋារួមនយុខនៅរាជនាធនានេះនាងជន្លះ នៅជន្លេច actions. different callegibrists exertings រាងដីទៅខែសហេដូ ប្រេសពីស្រាន់ សំនាន់ ម៉ាន់ស្រាន់ នៅ solutions also shed

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Betwand 2015 and pithocomorphism of the Market South Fire top 10 firms by employment in 2016, only Switzerland enterprises of South for the Market South Fire top 10 firms by employment in 2016, only Switzerland enterprises of South for the Market South Fire the South for the Market South for the Market

San Diego is home to more UK, Irish and Dutch firms compared to the Southern California average, while Mexican and Canadian

firms are particularly prominent in San Bernardino, For 2016, Swiss and Swedish firms stand out in Los Angeles County, while UK firms are prominent in Orange County, and Irish and Dutch

firms are disproportionately represented in San Diego County

Spatial agglomeration like 2015 the clustering of firms within a particular location. Firms locate nearby one another – for example car dealerships, jewelry or fashion districts, or furniture stores – for many reasons, including being attractive to customers and workers from similar firms, being close to supply chains, and to be in ethnically familiar neighborhoods. For Southern California, spatial agglomeration is higher when it is based on industrial sector than when it is based on country of origin. This suggests that firms might be more likely to locate close to another firm in the same sector than to another firm from the same country of origin.

For industries with a large number of firms, Financial Services and Professional and Business Services are the industries with the highest level of spatial agglomeration. When spatial agglomeration is measured with respect to the number of firms, Korea shows the highest levels in Southern California, followed

by Taiwan and Switzerland. When measure in terms of the number of employees, firms from Sweden, China, and Switzerland show the highest levels in Southern California.

with manufacturing the largest sector in terms of employment – 140,582 jobs – and total estimate wages – \$9.7 billion.

**TABLE 7**Counties Compared to Southern California Source Nation Rankings, 2015

IN	T <b>RODU</b>	Southern <b>C Califor</b> nia	Los Angeles	Orange	San Diego	San Bernardino	Riverside	Ventura
П	<b>1 C</b>	Japan	Japan	Japan	UK	Japan	Germany	France
b	AL	N UK	UK L	UK	Japan	Canada	Japan	Japan
	3	Germany	Switzerland	Ireland	Ireland	France	UK	Netherlands
_	4	France	Germany	Germany	Germany	Germany	Switzerland	UK
	5	Canada	France	France	Canada	UK	Canada	Germany
	6	Switzerland	Canada	Canada	Netherlands	Mexico	Sweden	Sweden
	7	Ireland	Netherlands	Switzerland	France	Sweden	France	Canada
_	8	Netherlands	Ireland	Israel	Switzerland	Switzerland	Spain	Republic of Korea
_	9	Sweden	Sweden	Taiwan	Republic of Korea	Australia	Ireland	Belgium
_	10	Australia	Australia	India	Sweden	Ireland	Belgium	Mexico

Source: Dun & Bradstreet, LAEDC Analysis, DHEI Analysis. Highlighted boxed represent notable ranking changes compared to the Southern California average.

**TABLE 8**Counties Compared to Southern California Source Nation Rankings, 2016

Rank	Southern California	Los Angeles	Orange	San Diego	San Bernardino	Riverside	Ventura
1	Japan	Japan	UK	Japan	Japan	Germany	France
2	UK	UK	Japan	UK	Canada	Japan	Japan
3	Canada	Sweden	Canada	Germany	France	UK	UK
4	France	Canada	France	Canada	Germany	Switzerland	Germany
5	Germany	Germany	Germany	Ireland	UK	Canada	Ireland
6	Switzerland	Switzerland	Ireland	France	Mexico	Sweden	Canada
7	Sweden	France	China	Switzerland	Sweden	Spain	Sweden
8	Ireland	Ireland	Switzerland	Netherlands	Switzerland	Ireland	Netherlands
9	China	Netherlands	Taiwan	Sweden	Australia	France	Republic of Korea
10	Netherlands	Australia	Israel	Spain	Ireland	Belgium	Mexico

Source: Dun & Bradstreet, LAEDC Analysis, DHEI Analysis. Highlighted boxed represent notable ranking changes compared to the Southern California average.

**TABLE 9**All Counties Compared to Southern California by Source Nation: Rankings and Shares, 2015

Los	Angeles County		Orange Count	iy .	San Diego County		
SoCal Rank Change	Jobs Wages Share Share	Rank Change	Jobs D Share	Wages Share	Rank Change	Jobs Share	Wages Share
Japan 0	52.9% 54.5%	0	23.6%	24.4%	-1	13.2%	12.8%
EWIERPOR	47.4% 48.5%	0	23.5%	24.9%	1	20.2%	19.6%
Germany As shown in Tables ES-1 and ES-2	47.0% there are now an esti	mated -1	23.7% Nearly half of	26.0% these firms	-1 and jobs are	13.4% Located in L	13.4% os Angeles
6 Figneygn-owned firms in South		ntil g <sub>-1</sub>	County, with C	)rangeg‰oun	ty accountin	g fqrodgse t	o one <sub>4</sub> quarte
employments, or 4 3% of the religion	v 744.3% a d 547.2%e	n \$27 41	Retail no wh	ole jal trade	entinue to	be largest s	sectors for th
oillion in wages. This Soptaetlexplores numerôus re: Japanos offres romain the largest		ing -1	with manyfac	turi <b>րg</b> ֆիչe la	rgest_şector	in terms of	employment
Anny est le resule de la	<del>เอเสเนเซ ของเอพ Southe</del> 87 <i>2847</i> worker 2 6 ใช้เล DEs to Southern Calife	of \$5.5	38.7%	44.2%	4	24.0%	21.3%
Calif <b>brenia</b> d with 2,465 firms paying sillion work is the day right and fee source the 1905 and the 2015	rmany complete the to report \$100.0000000000000000000000000000000000	op'5 itisticsN/A	N/A	N/A	2	23.6%	21.5%
in terms of number of firms, j Syadstreet firm-level data reti	rievedin March 4509% i	s N/A	N/A	N/A	-1	17.3%	18.5%
complemented with Californi Australia Department data on wages to	a Eradoymeri De 155.4% 55.4% Sestimate tot il William	price it s for N/A	N/A	N/A	N/A	N/A	N/A
cliffeyent categories. Dun & B	rad <mark>street data goly s</mark> n	ows the	23.0%	24.2%		14.9%	14.2%
obs incession other 721 685 to make their	hida wad Au tragonopore						
			demo <b>nati</b> ates own <b>e3häre</b> ns t			conjម៉ូង្គម្លtion Share	ofwiageign- Share
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rm inoite a digg by es o ribed and bis	<b>Share Share</b> 4.9% 3.5%	Change	e own <b>&amp;hare</b> ns t	o tl <b>Shærg</b> ion 2.2%	-1	<b>Share</b> 2.7%	<b>Share</b> 2.7%
Japan 0  CUK USTE-3  Germany Spatfällagglomeration refers to the	Share Share 4.9% 3.5%  2.8% 3.6%  4.8% 3.6%  e clusseering of firms w	-1	2.7% 2.7% by Taiwan and	2.2% 2.3% 5.4% I Swit2erland	-1 -2 -2 d. When mea	2.7% 2.9% 4.4% 8.9%	2.7% 2.9% 4.5% 9.1%
Japan 0  Cuk USTE-3R  Germany STE-1  Spatfällagglomeration refers to the	Share Share 4.9% 3.5%  2.8% 3.6%  4.8% 3.6%  e clusseering of firms w	-1	2.7% 2.7% 5.2% 6.6%	2.2% 2.3% 5.4% I Swlt 2erland	-1 -2 -2 d. When means from Swe	2.7% 2.9% 4.4% 8.9% den, China, a	2.7% 2.9% 4.5% 9.1%
Japan 0  Cuk USTE-3R  Germany T-1  Spatfafagglomeration refers to the particular location. Firms locate example car dealersh ps, jewelry curnitures for many reason	Share  4.9%  3.5%  2.8%  4.8%  3.6%  4.8%  10.6%  7.6%  10.6%  7.6%  10.6%  7.6%	change -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -33	by Taiwan and number of em show the high	o tl <b>Sharg</b> ion 2.2% 2.3% 5.4% I Swlt2erland ployees, firm est levels in	-1 -2 -2 d. When means from Swe Southern Callysis Weveals	2.7% 2.9% 4.4% 8.9% den, China, a alifornia.	2.7% 2.9% 4.5% 9.1% and Switzerla 1.7%
Japan 0  Cuk USTE-BR  Germany T-1  Spatfat Agglomeration refers to the particular location. Firms locate example car dealersh ps, jewelry curnitum and particular location ocustomers and workers from since the particular location.	Share  4.9% 3.5%  2.8% 4.8% 3.6%  e clustering of firms w 10.6% 7.6%  as, including beinggattr milar firms, being clos	change -1 -1 -1 -1 -1 -1 -1 -2	by Taiwan and number of em show the high Statistical conhigh concentr	2.2% 2.3% 5.4% I Swit 2 erland ployees, firmest levels in crelations of FO	-1 -2 -2 1. When means from Swe Southern Callysis Welve als	2.7% 2.9% 4.4% 8.9% den, China, a alifornia. s that Cfties vestically large	2.7% 2.9% 4.5% 9.1% and Switzerla 1.7%  with Matively ler lapor
Japan 0  Cuk USTE-BR  Germany 1  Germany 2  Germany 2  Germany 3  Germany 3  Germany 4  Germany 6  Germany 6  Germany 7	A.9% 3.5%  2.8% 3.6%  2.8% 3.6%  2.8% 3.6%  2.8% 3.6%  2.8% 3.6%  2.8% 3.6%  2.8% 3.6%  2.8% 3.6%  2.8% 3.6%  2.8% 3.6%  2.8% 3.6%  2.8% 3.6%  2.8% 3.6%  2.8% 3.6%  2.8% 3.6%  2.8% 3.6%  2.8% 3.6%  2.8% 3.6%  2.8% 3.6%  2.8% 3.6%  2.8% 3.6%  2.8% 3.6%  2.8% 3.6%  2.8% 3.6%  2.8% 3.6%  2.8% 3.6%  2.8% 3.6%  2.8% 3.6%  2.8% 3.6%  2.8% 3.6%  2.8% 3.6%  2.8% 3.6%  2.8% 3.6%  2.8% 3.6%  2.8% 3.6%  2.8% 3.6%  2.8% 3.6%  2.8% 3.6%  2.8% 3.6%  2.8% 3.6%  2.8% 3.6%  2.8% 3.6%  2.8% 3.6%  2.8% 3.6%  2.8% 3.6%  2.8% 3.6%  2.8% 3.6%  2.8% 3.6%  2.8% 3.6%  2.8% 3.6%  2.8% 3.6%  2.8% 3.6%  2.8% 3.6%  2.8% 3.6%  2.8% 3.6%  2.8% 3.6%  2.8% 3.6%  2.8% 3.6%  2.8% 3.6%  2.8% 3.6%  2.8% 3.6%  2.8% 3.6%  2.8% 3.6%  2.8% 3.6%  2.8% 3.6%  2.8% 3.6%  2.8% 3.6%  2.8% 3.6%  2.8% 3.6%  2.8% 3.6%  2.8% 3.6%  2.8% 3.6%  2.8% 3.6%  2.8% 3.6%  2.8% 3.6%  2.8% 3.6%  2.8% 3.6%  2.8% 3.6%  2.8% 3.6%  2.8% 3.6%  2.8% 3.6%  2.8% 3.6%  2.8% 3.6%  2.8% 3.6%  2.8% 3.6%  2.8% 3.6%  2.8% 3.6%  2.8% 3.6%  2.8% 3.6%  2.8% 3.6%  2.8% 3.6%  2.8% 3.6%  2.8% 3.6%  2.8% 3.6%  2.8% 3.6%  2.8% 3.6%  2.8% 3.6%  2.8% 3.6%  2.8% 3.6%  2.8% 3.6%  2.8% 3.6%  2.8% 3.6%  2.8% 3.6%  2.8% 3.6%  2.8% 3.6%  2.8% 3.6%  2.8% 3.6%  2.8% 3.6%  2.8% 3.6%  2.8% 3.6%  2.8% 3.6%  2.8% 3.6%  2.8% 3.6%  2.8% 3.6%  2.8% 3.6%  2.8% 3.6%  2.8% 3.6%  2.8% 3.6%  2.8% 3.6%  2.8% 3.6%  2.8% 3.6%  2.8% 3.6%  2.8% 3.6%  2.8% 3.6%  2.8% 3.6%  2.8% 3.6%  2.8% 3.6%  2.8% 3.6%  2.8% 3.6%  2.8% 3.6%  2.8% 3.6%  2.8% 3.6%  2.8% 3.6%  2.8% 3.6%  2.8% 3.6%  2.8% 3.6%  2.8% 3.6%  2.8% 3.6%  2.8% 3.6%  2.8% 3.6%  2.8% 3.6%  2.8% 3.6%  2.8% 3.6%  2.8% 3.6%  2.8% 3.6%  2.8% 3.6%  2.8% 3.6%  2.8% 3.6%  2.8% 3.6%  2.8% 3.6%  2.8% 3.6%  2.8% 3.6%  2.8% 3.6%  2.8% 3.6%  2.8% 3.6%  2.8% 3.6%  2.8% 3.6%  2.8% 3.6%  2.8% 3.6%  2.8% 3.6%  2.8% 3.6%  2.8% 3.6%  2.8% 3.6%  2.8% 3.6%  2.8% 3.6%  2.8% 3.6%  2.8% 3.6%  2.8% 3.6%  2.8% 3.6%  2.8% 3.6%  2.8% 3.6%  2.8% 3.6%  2.8% 3.6%  2.8% 3.6%  2.8% 3.6%  2.8% 3.6%  2.8% 3.6%  2.8% 3.6%  2.8% 3.6%  2.8% 3.6%  2.8% 3.6%  2.8% 3.6%  2.8% 3.6%  2.8% 3.6%  2.8% 3.6%	change -1 -1 -1 -1 -1 -1 -1 -1 -1 -2	by Taiwan and number of emshow the high Statistical continuous concentr forces and low in the RP cities	2.2% 2.3% 5.4% I Swit 2erland ployees, firmest levels in rrelafiem anations of FO wer unemplothave, statis	-1 -2 -2 -2 -2 -2 -3 -2 -3 -4 -4 -5 -5 -6 -6 -6 -6 -6 -6 -6 -6 -6 -6 -6 -6 -6	2.7% 2.9% 4.4% 8.9% den, China, a alifornia. s that Cfties we distically large. At the sam	2.7% 2.9% 4.5% 9.1% and Switzerla 1.7% with Matively er labor e time, FOEs
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Japan 0  CUK USTE3  Germany 0  CUK USTE3  Germany 0  Spatfafagglomeration refers to the a particular location. Firms locate example car dealersh ps, jewelry of furnisure stranges — for many reason to customers and workers from since supplyelahains, and to be in ethnical supplyelahains, and to be i	s, including beinggattr milar firms, being close ally tarrillar neighborh comight be more likely to sector than to another 10.0% 6.9%	change  -1  -1  ithin -3  or 0  active 2  e to  oods2  when it  ountry N/A  o locate  firm 3  N/A  rvices	by Taiwan and number of em show the high Statistieal corncentr forces and low in the sp cities higher 3-year ci 14.5% suggests that have larger in spatial agglor	2.2% 2.3% 5.4% I Swit 2erland ployees, firmest levels in relation, of FO wer unemplother with the recurrence of the ployees of	-1 -2 -2 -2 -2 -2 -2 -2 -3 -2 -3 -3 -4 -4 -5 -2 -2 -3 -4 -5 -6 -6 -6 -6 -6 -6 -6 -6 -6 -6 -6 -6 -6	2.7% 2.9% 4.4% 8.9% den, China, a alifornia. s that Cfties versitically large. At the sam 14.1% tatistically and assed on second on second on second or origin.	2.7% 2.9% 4.5% 9.1% and Switzerla 1.7% vith Matively er labor e time, FOEs 12.7% alysis. 24so tor might d growth tha
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**TABLE 10**All Counties Compared to Southern California by Source Nation: Rankings and Shares, 2016

	Los	Angeles Co	unty	0	range Coun	ty	Sar	n Diego Cou	nty
NTBORUCTIO	Rank Change	Jobs Share	Wages Share	Rank Change	Jobs Share	Wages Share	Rank Change	Jobs Share	Wages Share
Japan	GRO	51.8%	51.0%	-1	26.1%	26.3%	0	13.6%	14.2%
UK	0	40.6%	43.3%	1	35.8%	31.5%	0	15.4%	16.6%
Canada	-1	44.5%	45.5%	0	31.8%	31.5%	-1	11.5%	11.7%
France	-3	42.4%	41.8%	0	22.9%	23.5%	-2	11.2%	11.2%
Germany	0	46.5%	46.2%	0	23.3%	24.2%	2	14.2%	14.5%
Switzerland	0	63.5%	66.1%	-2	12.9%	11.9%	-1	13.0%	12.1%
Sweden	4	76.9%	74.1%	N/A	N/A	N/A	-2	6.5%	6.6%
Ireland	0	31.8%	32.9%	2	34.9%	37.3%	3	21.0%	17.1%
China	N/A	N/A	N/A	2	53.1%	56.4%	N/A	N/A	N/A
Netherlands	1	49.3%	49.7%	N/A	N/A	N/A	2	25.2%	24.4%
County Average	-1	48.4%	48.3%		26.0%	25.9%	1	13.2%	13.3%

	San B	ernardino C	county	Ri	verside Cou	nty	Ve	entura Cour	ity
SoCal Rank	Rank Change	Jobs Share	Wages Share	Rank Change	Jobs Share	Wages Share	Rank Change	Jobs Share	Wages Share
Japan	0	3.4%	3.1%	-1	2.3%	2.3%	-1	2.8%	3.1%
UK	-3	1.7%	1.7%	-1	2.8%	2.7%	-1	3.7%	4.2%
Canada	1	6.6%	6.3%	-2	3.8%	3.4%	-3	1.9%	1.5%
France	1	6.6%	6.4%	-5	2.2%	1.9%	3	14.7%	15.2%
Germany	1	4.8%	4.3%	4	6.9%	7.1%	1	4.4%	3.7%
Switzerland	-2	3.5%	3.2%	2	6.7%	6.2%	N/A	N/A	N/A
Sweden	0	4.2%	4.3%	1	6.3%	7.6%	0	3.1%	3.4%
Ireland	-2	3.5%	3.8%	0	3.9%	3.9%	3	4.9%	5.1%
China	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Netherlands	N/A	N/A	N/A	N/A	N/A	N/A	2	5.3%	6.0%
County Average	i	4.9%	4.8%		3.7%	3.7%		3.8%	3.9%

Source: Dun & Bradstreet, LEADC Analysis, DHEI Analysis. Highlighted boxed represent jobs shares and wages shares that are notably higher than the county average. For rank change, please refer to Table 8 for current ranking



### <del>IGN-OW</del>

5

As shown in Tables ES-1 and ES-2, there are now an estimated JAPAN FSEN OVENED BISTS IN SECTION Californ a re res nti g bf all fir ns in the contraction. he ar in m employees, or 4.3% of the region worker

Jobs



....Ica la Era cymer De Department data on wages to estimate tot it way is for different categories. Dun & Bradstreet data only snows the

ultimate ownership of firms above a ten percent threshold, Betweend 2001-5 and 2001-6d this discretisen without heavy the wind is the enterpressels of Sometigen Oraticourisitionorea spectry feeto", with stored it, ob<u>s increaminathe 70,666</u>5 anealther angeogentur Abeauchidhe jodos

ribed withis in 7

**ESTIMATED WAGES** 

\$5,512.8MM

Nearly half of these firms and jobs are located in Los Angeles CAPANESE FOESEBY DESTANATION TO OUTSET TO one quarter.

Retail no whole all trade continue to ball argest sectes twates Ranke Countries would Joks - £951 Jahr 1, Firm res (Smillions)

fanuracturing the Los Angeles 82 Jobs — and tota	largest sed 45,157 I estimate	ctor in term 51.8% wages – \$	is or emp 1233 9.7 billior	10yment – \$2,813.9 1.
Orange	22,806	26.1%	545	\$1,449.7
San Diego	11,848	13.6%	407	\$783.0
San Bernardino	2,969	3.4%	133	\$172.2
Ventura	2,449	2.8%	53	\$168.2
Riverside	2,018	2.3%	94	\$125.8
	Orange San Diego San Bernardino Ventura	Orange         22,806           San Diego         11,848           San Bernardino         2,969           Ventura         2,449	Orange         22,806         26.1%           San Diego         11,848         13.6%           San Bernardino         2,969         3.4%           Ventura         2,449         2.8%	San Diego     11,848     13.6%     407       San Bernardino     2,969     3.4%     133       Ventura     2,449     2.8%     53

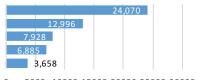
Total 87,247 100.0% 2,465 \$5,512.8

Of the top 10 firms by employment in 2016, only Switzerland and the Netherlands declined in employment. Collectively, this demonstrates the strong and growing contribution of foreignowned firms to the region.

Spatial agglomeration refers to the clustering of firms within preciping Firms locate reach remains other - for example car dealerships, jewelry or fashion districts, or r many reasons, inc u i R le ng attractive workers from similar hims, being close to supply chains, and to be in ethnically familiar neighborhoods. For Southern Galiforgia Capatial agglomeration is higher when it is based on industrial sector than when it is based on country of origin. This suggests that firms might be more likely to locate

Jobs

Prof/Business Services Manufacturing Transp, Warehousing, Utilities Retail Trade Financial Activities



5000 10000 15000 20000 25000 30000

by Taiwan and Switzerland. When measure in terms of the nestematep was from Sweden, China, and Switzerland show the highest levels in Southern California.

reveals that cities with relatively high concentrations of FOEs have statistically larger labor forces and lower unemployment rates. At the same time, FOEs HICEOESTRY DESTINATION CONTROL More workers, and higher 3-year growth percentage in sales yplume than EQEs in RELIEF WITHUR WE CONCENTRATIONS THEORE ALIGNED STATEMENT (SALARIONS) suggests that spatial agglomeration based on s have larger Ampacts on economic development and growth Man spatial agglemeration based one country of origin These նրվերցչ suggest that Southern California might have more to offer to prospective Pives than has been previously identified in the 22.7 academierliterature. 2.440 3.7% \$158.0 5 1,836 2.8% 71 \$101.7 Riverside 6 San Bernardino 1,148 1.7% 49 \$62.1



### FOREIGN-OWNED ENTERPRISES (FOEs)

# **BACKGROUMD** 26,230 743

#### **CANADIAN FOE JOBS BY SECTOR**

Jobs

Manufacturing
Financial Activities
Prof/Business Services
Wholesale Trade
Information

0 5000 10000 15000 20000

#### **ESTIMATED WAGES**

\$1,737MM

#### **CANADIAN FOES BY DESTINATION COUNTY**

Rank	County	Jobs	% of All FOE Jobs	Firms	Est. Wages (\$millions)
1	Los Angeles	17,710	44.5%	330	\$1,208.9
2	Orange	12,643	31.8%	166	\$837.3
3	San Diego	4,576	11.5%	160	\$311.5
4	San Bernardino	2,619	6.6%	89	\$167.1
5	Riverside	1,498	3.8%	73	\$89.7
6	Ventura	752	1.9%	40	\$41.0
	Total	39,798	100.0%	858	\$2,655.5



### **FOREIGN-OWNED ENTERPRISES (FOEs)**

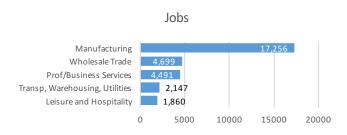
**DIRECT FOE JOBS** 

**FOE FIRMS** 

32,558

606

#### FRENCH FOE JOBS BY SECTOR



#### **ESTIMATED WAGES**

\$1,990MM

#### FRENCH FOEs BY DESTINATION COUNTY

Ran	k County	Jobs	% of All FOE Jobs	Firms	Est. Wages (\$millions)
1	Los Angeles	15,255	42.4%	358	\$990.0
2	Orange	8,257	22.9%	134	\$557.2
3	Ventura	5,283	14.7%	28	\$360.0
4	San Diego	4,018	11.2%	96	\$264.4
5	San Bernardino	2,363	6.6%	40	\$152.4
6	Riverside	805	2.2%	33	\$44.8
	Total	35,981	100.0%	689	\$2,368.8

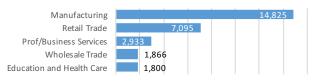


## CONTRIBUTION OF POREIGN-OWNED

34,141 PPR 858

As shown in Tables ES-1 and ES-2, there are now an estimated **GERMANIGOWIGB STRIK DECOURT** Califying a regression in graph of all firms in a case of the second of the sec

#### **Jobs**



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## Department data on wages to estimate for it will be so plike to different categories. Dun & Bradstreet data only snows the

ultimate ownership of firms above a ten percent threshold, Betweend 2015 and 200 Mcd thie discriben which they have full is the enterpriseds of Southgen Oraticquisition; case to fest in increase and the first and the range mentural beauthjobs jubs ribed in the first of the firs

**ESTIMATED WAGES** 

\$2,047,5MM

Nearly half of these firms and jobs are ocated in Los Angeles

GERMANIFORS BYCDUST HIGHON COUNTS! to one quarter.

Retail no whole all trade continue, to pallargest sectors in the Renal Renal Research (No. 1) (No. 1)

with n	nanufacturing the Los Angeles 82 Jobs – and tota	largest se 15.873 I estimate	ctor in teri 46.5% wages –	ms of en 369 \$9.7 billi	ipioyment – \$945.6 on.
2	Orange	7,943	23.3%	181	\$495.3
3	San Diego	4,833	14.2%	145	\$296.1
4	Riverside	2,353	6.9%	50	\$146.1
5	San Bernardino	1,646	4.8%	68	\$89.0
6	Ventura	1,493	4.4%	45	\$75.4

Total 34,141 100.0% 858 \$2,047.5

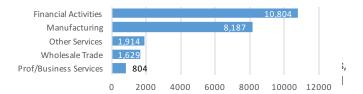
Of the top 10 firms by employment in 2016, only Switzerland and the Netherlands declined in employment. Collectively, this demonstrates the strong and growing contribution of foreignowned firms to the region.

### SWITZERLAND CLUSTERING ANALYSIS OREIGN-OWNED ENTERPRISES (FOES)

Spatial agglomeration refers to the clustering of firms within practical process. Firms locate read propagation of the example car dealerships, jewelry or fashion districts, or the fire forces of or many reasons, it is directly being attractive to customers and workers from similar mins, being close to supply chains, and to be in ethnically familiar neighborhoods.

For Southern California, spatial agglomeration is higher when it is based on industrial sector than when it is based on country of origin. This suggests that firms might be more likely to locate

#### Jobs



by Taiwan and Switzerland. When measure in terms of the negtenpareDwage rms from Sweden, China, and Switzerland show the highest levels in Southern California.

Stast Cabination Bourse Is that cities with relatively high concentrations of FOEs have statistically larger labor forces and lower unemployment rates. At the same time, FOEs SYMSS FOES BYE DESTINATION GOANT, more workers, and higher 3-year growth percentage in sales volume than FOEs in Est Wages with lower concentrations The FoE Julia Farmay's Salinions) suggests that spatial agglemeration based on sector might have larger Ampsters on ecd for file development and growth than spatial agglemeration based on sector might suggest that southern California might have more to offer to prospective POEs than has been previously identified in 1969.2 academic literature.

1,645 6.7% 19 \$113.7

5 San Bernardino 872 3.5% 28 \$59.5

	Total	24,675	68.3%	387	\$1,842.8
6	Ventura	118	0.5%	10	\$8.4
5	San Bernardino	872	3.5%	28	\$59.5
•	Taveroide	1,010	0.7 70	1,2	Q110.7

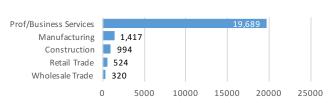


### FOREIGN-OWNED ENTERPRISES (FOEs)

# **BACKGROUMD** 23,177 121

#### **SWEDISH FOE JOBS BY SECTOR**

Jobs



#### **ESTIMATED WAGES**

\$1,020.8MM

#### **SWEDISH FOES BY DESTINATION COUNTY**

Rank	County	Jobs	% of All FOE Jobs	Firms	Est. Wages (\$millions)
1	Los Angeles	17,818	76.9%	54	\$756.1
2	San Diego	1,503	6.5%	16	\$67.5
3	Riverside	1,450	6.3%	13	\$77.7
4	San Bernardino	979	4.2%	13	\$44.1
5	Ventura	730	3.1%	8	\$34.3
6	Orange	697	3.0%	17	\$41.1
	Total	23.177	100.0%	121	\$1.020.8



### **FOREIGN-OWNED ENTERPRISES (FOEs)**

**DIRECT FOE JOBS** 

**FOE FIRMS** 

20,985

203

#### **IRISH FOE JOBS BY SECTOR**

#### **ESTIMATED WAGES**

\$1,368.4MM

#### **IRISH FOEs BY DESTINATION COUNTY**

Rank	County	Jobs	% of All FOE Jobs	Firms	Est. Wages (\$millions)
1	Orange	7,329	34.9%	54	\$510.9
2	Los Angeles	6,677	31.8%	60	\$450.1
3	San Diego	4,404	21.0%	35	\$233.4
4	Ventura	1,027	4.9%	21	\$69.3
5	Riverside	808	3.9%	17	\$53.2
6	San Bernardino	740	3.5%	16	\$51.5
	Total	20,985	100.0%	203	\$1,368.4

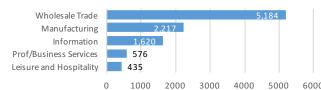


## CONTRIBUTION OF POREIGN-OWNED

H,221 RPR 323

As shown in Tables ES-1 and ES-2, there are now an estimated CHANESE green in 1880 to Pro Calif on a regression of the second of

#### Jobs



Department data on wages to estimate for in wights for different categories. Dun & Bradstreet data only snows the

ultimate ownership of firms above a ten percent threshold, Betweed 2015 and 2014 the dication whichey having is the enterprised of Southern Ocidequisition as well by increasing the 70,000 and the range of murabauchiche jobs increasing the 70,000 and the range of murabauchiche jobs increasing the ribed of the ribed o

**ESTIMATED WAGES** 

\$725,9MM

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with n 140,5	with manufacturing the largest sector in terms of employment – 1.0 Orange 140,582 jobs – and total estimate wages – \$9.7 billion.							
2								
3	San Diego	898	8.0%	31	\$46.6			
4	San Bernardino	560	5.0%	39	\$36.0			
5	Riverside	181	1.6%	10	\$11.5			
6	Ventura	161	1.4%	2	\$8.8			

Total 11,221 100.0% 323 \$725.9

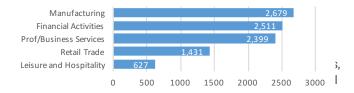
Of the top 10 firms by employment in 2016, only Switzerland and the Netherlands declined in employment. Collectively, this demonstrates the strong and growing contribution of foreignowned firms to the region.

# NETHERLANDS CLUSTERING ANALYSIS FOREIGN-OWNED ENTERPRISES (FOEs)

Spatial agglomeration refers to the clustering of firms within **practical process** Firms locate **ready process** Firms locate **ready process** Firms locate **ready process** Firms locate **ready process** for example car dealerships, jewelry or fashion districts, or fir little **stord** – for many reasons, locating being attractive to customers and workers from similar nims, being close to supply chains, and to be in ethnically familiar neighborhoods.

For Seathern California, spatial agglomeration is higher when it is based on industrial sector than when it is based on country of origin. This suggests that firms might be more likely to locate

Jobs



by Taiwan and Switzerland. When measure in terms of the negtenpareDwage rms from Sweden, China, and Switzerland show the highest levels in Southern California.

reveals that cities with relatively high concentrations of FOEs have statistically larger labor forces and lower unemployment rates. At the same time, FOEs in the characters are presented in the characters and higher 3-year growth percentage in sales volume than FOEs in Rank with lower concentrations Theorea is called an alysical analysical analy have larger Ampalets on economic development and grown than spatial agglomeration based an country of origin. These sindings suggest that Southern California might have more to offer to prospecffਵਦਾoes than has been previously identified in ਜੀਏ<sup>0.2</sup> academic literature. 587 5.3% 23 \$43.7 5 Riverside 421 3.8% 18 \$29.8 6 San Bernardino 347 15 \$14.9 3.1%

11,104

**Total** 

100.0%

216

\$726.9



## FOREIGN-OWNED ENTERPRISES (FOEs)

## **BACKGROUND** 8,035 257

#### TAIWANESE FOE JOBS BY SECTOR

Manufacturing Wholesale Trade Prof/Business Services Financial Activities Transp, Warehousing, Utilities 0 500 1000 1500 2000 2500 3000

### **ESTIMATED WAGES**

## \$551.2MM

#### TAIWANESE FOES BY DESTINATION COUNTY

Rank	County	Jobs	% of All FOE Jobs	Firms	Est. Wages (\$millions)
1	Los Angeles	3,827	47.6%	146	\$252.1
2	Orange	2,858	35.6%	70	\$199.8
3	San Diego	666	8.3%	12	\$51.5
4	San Bernardino	577	7.2%	24	\$40.3
5	Ventura	65	0.8%	3	\$4.6
6	Riverside	42	0.5%	2	\$3.0
	Total	8,035	100.0%	257	\$551.2



## **FOREIGN-OWNED ENTERPRISES (FOEs)**

**DIRECT FOE JOBS** 

**FOE FIRMS** 

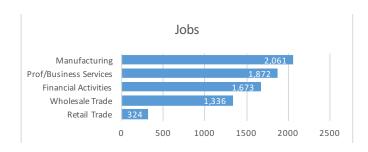
7,569

202

## **ESTIMATED WAGES**

\$500.8MM

#### **AUSTRALIAN FOE JOBS BY SECTOR**



## **AUSTRALIAN FOES BY DESTINATION COUNTY**

Rank	County	Jobs	% of All FOE Jobs	Firms	Est. Wages (\$millions)
1	Los Angeles	4,367	57.7%	105	\$283.7
2	Orange	1,373	18.1%	44	\$89.8
3	San Bernardino	865	11.4%	15	\$59.6
4	San Diego	616	8.1%	24	\$44.2
5	Riverside	316	4.2%	10	\$21.3
6	Ventura	32	0.4%	4	\$2.2
	Total	7,569	100.0%	202	\$500.8

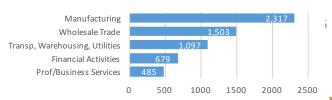


## CONTRIBUTION OF POREIGN-OWNED

7,464ERPR 262S

As shown in Tables ES-1 and ES-2, there are now an estimated **\$0.6.1% reigneyment figures in Boothing Callin** in a re-resinting 12/3 of all fir his in collection to be some in the collection employees, or 4.3% of the re-in in viving a standard them \$27.4

#### Jobs



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ultimate ownership of firms above a ten percent threshold, Betweed 2015 and 2004 this disable whicher the properties the enterprises of Southern Oration which side of the first and the reason of the

### **ESTIMATED WAGES**

\$475,8MM

Nearly half of these firms and jobs are located in Los Angeles
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Retail no whole all trade continue, to be hargest sectors for the

RAMBE COUNTY IG. SWIED JOBS - 270 E JOBS 1,69 Files (\$ ATIMANS) with manufacturing the largest sector in terms of employment 43.1% as 131. Illian \$180.0 140,582 loss Angeles and total estimate wages - \$9.7 billion. Orange 1.947 26.1% 70 \$140.8 3 San Diego 1,279 17.1% 32 \$87.4 4 San Bernardino 537 7.2% 21 \$35.6 Ventura 471 6.3% 5 \$30.9 Riverside 15 0.2% 3 \$1.1

Total 7,464 100.0% 262 \$475.8

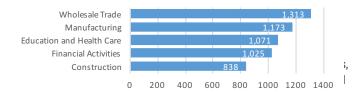
Of the top 10 firms by employment in 2016, only Switzerland and the Netherlands declined in employment. Collectively, this demonstrates the strong and growing contribution of foreignowned firms to the region.

## CLUSTERING ANALYSIS OREIGN-OWNED ENTERPRISES (FOEs)

Spatial agglomeration refers to the clustering of firms within **practical process** Firms locate **read property** of example car dealerships, jewelry or fashion districts, or feniture force – for many reasons in pring being attractive to elstomers and workers from similar firms, being close to supply chains, and to be in ethnically familiar neighborhoods.

FOR ANY SET California, postial agglomeration is higher when it is based on industrial sector than when it is based on country of origin. This suggests that firms might be more likely to locate

#### Jobs



by Taiwan and Switzerland. When measure in terms of the negtenpareDwage grms from Sweden, China, and Switzerland show the highest levels in Southern California.

reveals that cities with relatively high concentrations of FOEs have statistically larger labor forces and lower unemployment rates. At the same time, FOEs is Provisities of a very large state of the same of th higher 3-year growth percentage in sales volume than FOEs in Riting with lower concentrations Theorea Theorea Farmers (Salaminons) have larger Ampeless on economic development and growth than spatial agglomeration based on country of origin. These findings suggest that Southern California might have more to offer to prospective rides than has been previbusiy identified in the 2.0 academic literature. 839 12.4% \$44.9 5 San Bernardino 733 10.8% 9 \$40.5 \$3.6 45 0.7% 1 6 Ventura 100.0% 116 \$441.4 **Total** 6,764



## FOREIGN-OWNED ENTERPRISES (FOEs)

## **BACKGROUND** 6,673 254

#### **MEXICAN FOE JOBS BY SECTOR**

### **ESTIMATED WAGES**

\$404.5MM

#### **MEXICAN FOES BY DESTINATION COUNTY**

Rank	County	Jobs	% of All FOE Jobs	Firms	Est. Wages (\$millions)
1	Los Angeles	3,595	53.9%	94	\$213.2
2	San Diego	1,077	16.1%	62	\$68.0
3	San Bernardino	1,040	15.6%	35	\$62.1
4	Orange	564	8.5%	29	\$32.8
5	Ventura	311	4.7%	13	\$21.9
6	Riverside	86	1.3%	21	\$6.5
	Total	6,673	100.0%	254	\$404.5



## **FOREIGN-OWNED ENTERPRISES (FOEs)**

**DIRECT FOE JOBS** 

**FOE FIRMS** 

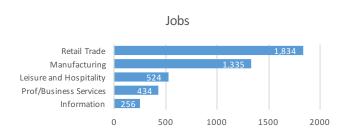
4,734

332

#### **ESTIMATED WAGES**

\$230.2MM

#### **LUXEMBOURG FOE JOBS BY SECTOR**



#### **LUXEMBOURG FOES BY DESTINATION COUNTY**

Rank	County	Jobs	% of All FOE Jobs	Firms	Est. Wages (\$millions)
1	Los Angeles	2,207	46.6%	139	\$96.8
2	Orange	1,595	33.7%	59	\$96.7
3	San Diego	356	7.5%	53	\$13.0
4	Riverside	281	5.9%	35	\$11.8
5	Ventura	154	3.3%	21	\$6.8
6	San Bernardino	141	3.0%	25	\$5.2
	Total	4,734	100.0%	332	\$230.2



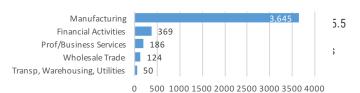
## CONTRIBUTION OF POREIGN-OWNED

4,495 RPR 53-S

As shown in Tables ES-1 and ES-2, there are now an estimated

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#### Jobs



## Department data on wages to estimate for in wights for different categories. Dun & Bradstreet data only snows the

ultimate ownership of firms above a ten percent threshold, Betweed 2015 and 2014 this disables whicher the percent threshold, Betweed 2015 and 2014 this disables whicher the percent threshold, Betweed 2015 and 2014 this increase and the percent threshold threshold the percent threshold, and the percent threshold, between the percent threshold, and the percent threshold threshold the percent threshold thre

### **ESTIMATED WAGES**

**\$311.4MM** 

Nearly half of these firms and jobs are located in Los Angeles
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140,582 lobs – and total estimate wages – \$9.7 billion. \$178.3							
2	Los Angeles	1,562	34.7%	27	\$109.5		
3	San Diego	249	5.5%	6	\$17.4		
4	San Bernardino	36	0.8%	4	\$2.5		
5	Ventura	35	0.8%	1	\$2.4		
6	Riverside	21	0.5%	2	\$1.3		
	Total	4.405	100.0%	FO	0211.4		

Total 4,495 100.0% 53 \$311.4

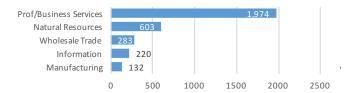
Of the top 10 firms by employment in 2016, only Switzerland and the Netherlands declined in employment. Collectively, this demonstrates the strong and growing contribution of foreignowned firms to the region.

# CLUSTERING ANALYSIS FOREIGN-OWNED ENTERPRISES (FOEs)

Spatial agglomeration refers to the clustering of firms within **practical process** Firms locate **read property mag**nother – for example car dealerships, jewelry or fashion districts, or furnitures for many reasons in a life being attractive to extend and workers from similar nirms, being close to supply chains, and to be in ethnically familiar neighborhoods.

\*\*TOTAL THE PROPERTY OF THE PROPERTY

#### Jobs



by Taiwan and Switzerland. When measure in terms of the negretary lawage from Sweden, China, and Switzerland show the highest levels in Southern California.

eveals that cities with relatively high concentrations of FOEs have statistically larger labor forces and lower unemployment rates. At the same time, FOEs iNDIANCTOES BY DESTINATION COLOUT More workers, and higher 3-year growth percentage in sales volume than FOEs in Rank with lower concentrations Theorea is the contentrations of the contentration of the co have largen impacts on ecohomic development and grown frame spatial agglomeration based on country of origin. These fundings suggest that Southern California might have more to offer to prospective Prozscinan has Been previously identified in the 1.7 academic literature. 2.5% \$6.6 5 San Diego 50 1.4% 8 \$3.5 0.7% 5 6 26 \$1.3 Riverside

3,535

**Total** 

108

\$236.6

100.0%



## NO. 19 SINGAPORE

## FOREIGN-OWNED ENTERPRISES (FOEs)

## BEATCH GROUND 3,314 71

#### SINGAPOREAN FOE JOBS BY SECTOR

Manufacturing
Prof/Business Services
Wholesale Trade
Transp, Warehousing, Utilities
Retail Trade

0 500 1000 1500 2000 2500 3000

### **ESTIMATED WAGES**

\$227.0MM

#### SINGAPOREAN FOES BY DESTINATION COUNTY

Rank	County	Jobs	% of All FOE Jobs	Firms	Est. Wages (\$millions)
1	Orange	1,798	54.3%	21	\$126.1
2	San Diego	951	28.7%	9	\$65.3
3	Los Angeles	492	14.8%	30	\$31.6
4	San Bernardino	41	1.2%	6	\$2.5
5	Riverside	32	1.0%	5	\$1.5
6	Ventura	-	-	-	-
	Total	3,314	100.0%	71	\$227.0



## NO. 20 KAZAKHSTAN

## **FOREIGN-OWNED ENTERPRISES (FOEs)**

**DIRECT FOE JOBS** 

**FOE FIRMS** 

3,298

7

#### **KAZAKH FOE JOBS BY SECTOR**

Jobs

Prof/Business Services

0 500 1000 1500 2000 2500 3000 3500

## **ESTIMATED WAGES**

\$261.5MM

#### **KAZAKH FOES BY DESTINATION COUNTY**

Rank	County	Jobs	% of All FOE Jobs	Firms	Est. Wages (\$millions)
1	Los Angeles	3,108	94.2%	4	\$246.5
2	San Diego	150	4.5%	1	\$11.9
3	Orange	40	1.2%	2	\$3.2
4	Riverside	-	-	-	-
5	San Bernardino	-	-	-	-
6	Ventura	-	-	-	-
	Total	3,298	100.0%	7	\$261.5

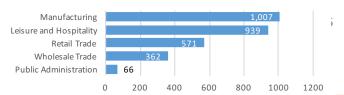


## CONTRIBUTION OF POREIGN-OWNED

3,096 RPR 152S

As shown in Tables ES-1 and ES-2, there are now an estimated 
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#### **Jobs**



## Department data on wages to estimate for it wilg is for different categories. Dun & Bradstreet data only snows the

ultimate ownership of firms above a ten percent threshold, Betweed 2015 and 2014d Hiedicalian of hether heavioration and control of the enterprises of Southeen Orangem Orangement in the control of the property of the property of the control of th

**ESTIMATED WAGES** 

\$153,0MM

Nearly half of these firms and jobs are ocated in Los Angeles **CYADIAN ITOTES BY CHEST ANTHONIC OUNTY** to one quarter.

Retail no whole all trade continue to be largest secters for the Runke Countries whed Jobs 250E Jobs 1, 6Ames (sativadas) with manufacturing the largest sector in terms of employment 140,582 lobs — and total estimate wages — \$9.7 billion Orange 881 28.5% \$54.5 3 San Diego 462 14.9% 25 \$23.7 9 4 Riverside 111 3.6% \$7.0 San Bernardino 73 2.4% 5 \$4.4 Ventura 28 0.9% 3 \$1.8 3,096 100.0% 152 \$153.0 Total

Of the top 10 firms by employment in 2016, only Switzerland

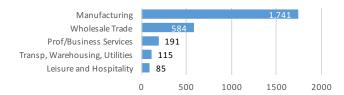
and the Netherlands declined in employment. Collectively, this demonstrates the strong and growing contribution of foreignowned firms to the region.

## CLUSTERING ANALYSIS FOREIGN-OWNED ENTERPRISES (FOEs)

Spatial agglomeration refers to the clustering of firms within practical process. Firms locate read process for example car dealerships, jewelry or fashion districts, or thinks stress for many reasons, not ding being attractive to electroners and workers from similar firms, being close to supply chains, and to be in ethnically familiar neighborhoods.

For Sevicial Residual agglomeration is higher when it is based on industrial sector than when it is based on country of origin. This suggests that firms might be more likely to locate

#### Jobs



by Taiwan and Switzerland. When measure in terms of the negtenpareDwage rms from Sweden, China, and Switzerland show the highest levels in Southern California.

all We reveals that cities with relatively high concentrations of FOEs have statistically larger labor forces and lower unemployment rates. At the same time, FOEs iB the GLANIESO TEST BY ATTESTAINATION SOUL NOTICE workers, and higher 3-year growth percentage in sales volume than FOEs in cities with lower concentrations The Seat Silcal analysis alignments have larger Ampelers on economic development and growth than spatial agglomeration based on country of origin. These findings suggest that Southern California might have more to offer to prospectiverFides than has been previously identified in the 37.6 academic literature. 384 13.5% \$22.2 5 San Bernardino 196 6.9% 5 \$11.9 6 47 1.7% 4 \$2.1 Ventura Total 2.834 100.0% \$183.8



NO. 23

## **CAYMAN ISLANDS**

## FOREIGN-OWNED ENTERPRISES (FOEs)

## 2,745 33

#### **CAYMAN ISLAND FOE JOBS BY SECTOR**

Manufacturing Wholesale Trade Retail Trade Prof/Business Services Information 120 0 200 400 600 800 1000 1200 1400

### **ESTIMATED WAGES**

## \$183.9MM

#### **CAYMAN ISLAND FOES BY DESTINATION COUNTY**

Rank	County	Jobs	% of All FOE Jobs	Firms	(\$millions)
1	Los Angeles	2,499	91.0%	22	\$167.2
2	Orange	210	7.7%	7	\$14.2
3	San Bernardino	18	0.7%	2	\$1.2
4	Ventura	10	0.4%	1	\$0.7
5	San Diego	8	0.3%	1	\$0.6
6	Ventura	-	-	-	-
	Total	2,745	100.0%	33	\$183.9



## NO. 24 HONG KONG

## **FOREIGN-OWNED ENTERPRISES (FOEs)**

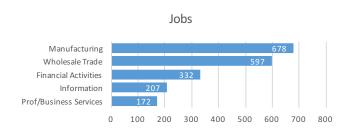
**DIRECT FOE JOBS** 

**FOE FIRMS** 

2,286

94

#### HONG KONG FOE JOBS BY SECTOR



#### **ESTIMATED WAGES**

\$151.7MM

#### HONG KONG FOES BY DESTINATION COUNTY

Rank	County	Jobs	% of All FOE Jobs	Firms	Est. Wages (\$millions)
1	Los Angeles	1,379	60.3%	70	\$90.4
2	San Bernardino	578	25.3%	6	\$40.2
3	San Diego	211	9.2%	8	\$14.2
4	Orange	51	2.2%	6	\$2.6
5	Riverside	34	1.5%	2	\$1.8
6	Ventura	33	1.4%	2	\$2.5
	Total	2,286	100.0%	94	\$151.7

# CONTRIBUTION OF FOREIGN-OWNED FNTERPRISES

As shown in Tables ES-1 and ES-2, there are now an estimated Space of the second of these firms and jobs are located in Los Angeles County, with Orange County accounting for close to one quarter.

1.25 of all firms in 1.25 (or 1.36 s) in 1.35 (county).

Retail no whole all trade continue to be largest sectors for the employees, or 4 3% if the religious estate of them \$27 4 | Retail no whole all trade continue to be largest sectors for the number of foreign which it is expected. The purpose of the property of the property of the part of the property of the part of the part of the property of them.

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in terms of number of firms, jobs, and wages. Dun & TableBracktive section elles that a retrieved of byartial 2005 description eration in Southerleastheedia. Spatial agglobracktive section section and clustering of firms a station are gestion as to called in the constitution of investigation and the constitution of the constitution of investigation attacks of the constitution of the

transaction intensive. Firms perform critical functions within a constantly shifting system of linkages, and spatial proximity reduces the costs of transacting and intensifies localized positive externalities. These cost reductions and positive systematigionareassociete to tenegrous transply of the instrument aparticulal for the cost reduction of the cost reductions and positive systematical for the cost reductions and positive systematical for the cost reduction of the cost reductions and positive systematical for the cost reduction of the cost reductions are considered as the cost reduction of the cost reductions are considered as the cost reduction of the cost reductions are cost reductions and positive systems.

example car dealerships liewelry of spation districts or fashion districts or fashion adjoint attores are a factor of the level of spation districts or fashion in a furniture stores based on the number of feet of heigh attractive to customers and workers from similar firms, being close to supply chains, and to be in ethnically familiar neighborhoods. For Southern California, spatial agglomeration is higher when it is based on industrial sector than when it is based on country of origin. This suggests that firms might be more likely to locate close to another firm in the same sector than to another firm from the same country of origin.

For industries with a large number of firms, Financial Services and Professional and Business Services are the industries with the highest level of spatial agglomeration. When spatial agglomeration is measured with respect to the number of firms, Korea shows the highest levels in Southern California, followed

might choose to cluster with other firms in their own sector in order to benefit from customers' supply, positive spillovers, and common infrastructure and supply chain synergies. On the other hand, FOEs might choose to cluster with other firms from the same country of origin in order to benefit from their shared Of the nown to a find the sources low should be a source source source of the control of the con and attine (Nednepleting, deed in eplain dings) to the blt SCT he diverge the second of the blt SCT he diverge the second deables that earth A-st) rang and gladed high singuith to the ignowoped from of a the OE gilocated in each individual city. Once the proportions are computed for every city, they are squared and added. By construction, the H-Index for a particular sector/ county will equal to one when all activity is located in only one city. Similarly, the H-Index will be close to zero when all activity is spread almost equally among many cities. The analysis based on the number of employees employed by FOEs follows the barran pancandu switzerland. When measure in terms of the number of employees, firms from Sweden, China, and Switzerland show the highest levels in Southern California.

Statistical correlation analysis reveals that cities with relatively high concentrations of FOEs have statistically larger labor forces and lower unemployment rates. At the same time, FOEs in these cities have statistically higher sales, more workers, and higher 3-year growth percentage in sales volume than FOEs in cities with lower concentration. The statistical analysis also suggests that spatial agglomeration based on sector might have larger impacts on economic development and growth than spatial agglomeration based on country of origin. These findings suggest that Southern California might have more to offer to prospective FOEs than has been previously identified in the academic literature.

TABLE A-1 Sector H-Index for FOE Firms by County, 2016

Sectors	Southern California	Los Angeles	Orange	Riverside	San Ber- nardino	San Diego	Ventura
Natural Resources	0.043	0.018	0.156	0.185	0.184	0.188	0.500
INTRODUCTION	0.051	0.025	0.193	0.181	0.431	0.133	0.301
Manufacturing D	0.029	0.029	0.034	0.135	0.178	0.175	0.341
Wholesale Trade	0.025	0.030	0.050	0.114	0.134	0.187	0.341
Retail Trade	0.018	0.034	0.046	0.073	0.094	0.093	0.185
Transportation, Ware- housing, Utilities	0.041	0.041	0.072	0.160	0.117	0.138	0.610
Information	0.041	0.041	0.088	0.132	0.157	0.099	0.389
Financial Services	0.043	0.043	0.128	0.114	0.081	0.071	0.272
Prof/Business Services	0.055	0.043	0.119	0.189	0.185	0.204	0.487
Education/Health Care	0.034	0.046	0.042	0.103	0.184	0.134	0.326
Leisure/Hospitality	0.046	0.051	0.092	0.100	0.194	0.207	0.478
Other Services	0.030	0.055	0.058	0.096	0.140	0.173	0.444
Public Administration	0.503	0.503	0.702	0.556		1.000	0.515

Source: Dun & Bradstreet, DHEI Analysis

**TABLE A-2**Sector H-Index for FOE Firms by Source Nations and County, 2016

Country of Origin	Southern California	Los Angeles	Orange	Riverside	San Ber- nardino	San Diego	Ventura
Japan	0.032	0.075	0.089	0.102	0.115	0.292	0.141
United Kingdom	0.033	0.073	0.113	0.113	0.135	0.336	0.142
Germany	0.023	0.045	0.108	0.129	0.156	0.289	0.169
Canada	0.027	0.076	0.120	0.123	0.104	0.251	0.175
France	0.027	0.056	0.087	0.146	0.139	0.392	0.253
Switzerland	0.042	0.108	0.138	0.136	0.099	0.405	0.300
Luxembourg	0.021	0.054	0.083	0.120	0.142	0.246	0.238
China	0.032	0.053	0.186	0.240	0.264	0.517	0.500
Korea Rep Of	0.075	0.199	0.200	0.333	0.234	0.578	0.680
Taiwan	0.043	0.068	0.243	0.500	0.340	0.222	0.333
Mexico	0.026	0.044	0.111	0.098	0.084	0.260	0.172
Netherlands	0.042	0.103	0.297	0.117	0.324	0.348	0.153
Ireland	0.054	0.063	0.324	0.225	0.242	0.662	0.247
Australia	0.048	0.135	0.108	0.340	0.218	0.299	0.375
Italy	0.031	0.069	0.113	0.333	0.280	0.258	0.333

Source: Dun & Bradstreet, DHEI Analysis

# CONTRIBUTION OF FOREIGN-OWNED ENTERPRISES

As shown in Tables ES-2 and ES-2, there are now an estimated 9.6. foreign-owned firms in Southern Californ at recressing 125 of all firms in 100 and a some in 115 and 125 of all firms in 100 and its some in 115 and 125 of all firms in 100 and in its faction is the sector with 4 the highest level of spatial agglomeration in Southern California, This has not settle as the sector with 100 and 100 a

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trade different and tegler in a ustries, stand street coton on shows you he far the highes prepared in the highest three partial and three partial and the highest three partial and thr Betweendalons band 2024 of define ship antiben in ship enter on how in a construction of the construction enterprisetiet sombero Orbicari silvecten succensucentato, ivitactatant, joheshingræseningtbøf/9pensimmeltlærænanmentedbenkehjdbe jobs บิชาเกิดเรียงที่เดือง ที่เดิมหนึ่งสนาที่ที่ใช้เรื่องได้เกิดเรื่องเกิดเรื่องเกิดเรื่องเกิดเรื่องเกิดเรื่องเกิดเรื่องเกิดเรื่องเกิดเรื่องเกิดเรื่องเกิดเรื่องเกิดเรื่องเกิดเรื่องเกิดเรื่องเกิดเรียงที่เดิมหนึ่งเกิดเรียงที่เดิมหนึ่งเกิดเรียงที่เดิมหนึ่งเกิดเรียงที่เดิมหนึ่งเกิดเรียงที่เดิมหนึ่งเกิดเรียงที่เดิมหนึ่งเกิดเรียงที่เดิมหนึ่งเกิดเรียงที่เดิมหนึ่งเกิดเรียงที่เดิมหนึ่งเกิดเรียงที่เดิมหนึ่งเกิดเรียงที่เดิมหนึ่งเกิดเรียงที่เดิมหนึ่งเกิดเรียงที่เดิมหนึ่งเกิดเรียงที่เดิมหนึ่งเกิดเรียงที่เดิมหนึ่งเกิดเรียงที่เดิมหนึ่งเกิดเรียงที่เดิมหนึ่งเกิดเรียงที่เดิมหนึ่งเกิดเรียงที่เดิมหนึ่งเกิดเรียงที่เดิมหนึ่งเกิดเรียงที่เดิมหนึ่งเกิดเรียงที่เดิมหนึ่งเกิดเรียงที่เดิมหนึ่งเกิดเรียงที่เดิมหนึ่งเกิดเรียงที่เดิมหนึ่งเกิดเรียงที่เดิมหนึ่งเกิดเรียงที่เดิมหนึ่งเกิดเรียงที่เดิมหนึ่งเกิดเรียงที่เดิมหนึ่งเกิดเรียงที่เดิมหนึ่งเกิดเรียงที่เดิมหนึ่งเกิดเรียงที่เดิมหนึ่งเกิดเรียงที่เดิมหนึ่งเกิดเรียงที่เดิมหนึ่งเกิดเรียงที่เดิมหนึ่งเกิดเรียงที่เดิมหนึ่งเกิดเรียงที่เดิมหนึ่งเกิดเรียงที่เดิมหนึ่งเกิดเรียงที่เดิมหนึ่งเกิดเรียงที่เดิมหนึ่งเกิดเรียงที่เดิมหนึ่งเกิดเรียงที่เดิมหนึ่งเกิดเรียงที่เดิมหนึ่งเกิดเรียงที่เดิมหนึ่งเกิดเรียงที่เดิมหนึ่งเกิดเรียงที่เดิมหนึ่งเกิดเรียงที่เดิมหนึ่งเกิดเรียงที่เดิมหนึ่งเกิดเรียงที่เดิมหนึ่งเกิดเรียงที่เดิมหนึ่งเกิดเรียงที่เดิมหนึ่งเกิดเรียงที่เดิมหนึ่งเกิดเรียงที่เดิมหนึ่งเกิดเรียงที่เดิมหนึ่งเกิดเรียงที่เดิมหนึ่งเกิดเรียงที่เดิมหนึ่งเกิดเรียงที่เดิมหนึ่งเกิดเรียงที่เดิมหนึ่งเกิดเรียงที่เดิมหนึ่งเกิดเรียงที่เดิมหนึ่งเกิดเรียงที่เดิมหนึ่งเกิดเรียงที่เดิมหนึ่งเกิดเรียงที่เดิมหนึ่งเกิดเรียงที่เดิมหนึ่งเกิดเรียงที่เดิมหนึ่งเกิดเรียงที่เดิมหนึ่งเกิดเรียงที่เดิมหนึ่งเกิดเรียงที่เดิมหนึ่งเกิดเรียงที่เดิมหนึ่งเกิดเรียงที่เดิมหนึ่งเกิดเรียงที่เดิมหนึ่งเกิดเรียงที่เดิมหนึ่งเกิดเรียงที่เดิมหนึ่งเกิดเรียงที่เดิมหนึ่งเกิดเรียงที่เดิมหนึ่งเกิดเรียงที่เดิมหนึ่งเกิดเรียงที่เดิมหนึ่งเกิดเรียงที่เดิมหนึ่งเกิดเรียงที่เดิมหนึ่งเกิดเรียงที่เดิมหนึ่งเกิดเรียงที่เดิมหนึ่งเกิดเรียงที่เดิมหนึ่งเกิดเรียงที่เดิมหนึ่งเกิดเรียงที่เดิมหนึ่งเกิดเรียงที่เดิมหนึ่งเกิดเรียงที่เดิมหนึ่งเกิดเรียงที่เดิมหนึ่งเกิดเรียงที่เดิมหนึ่งเกิดเรียงทีย show a higher level of spatial agglomeration in Professional / Business Services. As an example, a perspective FOE seeking to locate in Southern California in the Public Administration industry could use this information and realize that Los Angeles County has by far the highest number of FOEs in this sector and the level of spatial agglomeration is among the highest in Spatial ang distribution of the solution of th ar pastion latitor; aviane housing outities and using anothesee fibrat Los examples Coudealershipsajethelhydrestshionbeistricto Esrin this furniture stores - for many reasons, including being attractive to customers and workers from similar firms, being close to supply chains, and to be in ethnically familiar neighborhoods. For Southern California, spatial agglomeration is higher when it is based on industrial sector than when it is based on country of origin. This suggests that firms might be more likely to locate close to another firm in the same sector than to another firm from the same country of origin.

For industries with a large number of firms, Financial Services and Professional and Business Services are the industries with the highest level of spatial agglomeration. When spatial agglomeration is measured with respect to the number of firms, Korea shows the highest levels in Southern California, followed

Nearly half of these firms and jobs are located in Los Angeles County, with Orange County accounting for close to one quarter.

Setail, Bu whele a strade cantinue to be largest sectors son the blego and forming county.....s - 2,351 and 1,695 respectively with manufacturing the largest sector in terms of employment -140 cross jobs out that rother ice in where Table A-2 is of or Balletin was the highest level of spatial agglomeration in Southern California, followed by Taiwan and Switzerland. For the Los Angeles County, Korea, Switzerland, and Canada show the highest level of spatial agglomeration, in that order. For Orange County, the order is Taiwan, Korea, and China. Japan and the United Kingdom have the highest number of firms in Southern California, and they show a higher level of spatial agglomeration in San Diego and Ventura County. Similar results are presented for the other top 10 countries with FOEs in Southern California. As an example, Office to perform the property of the property and attent in Stratterial salerd in each play these in Cortective land is demonstrates that stoomsnapples rowing chast but in that for pieces own # befire of gipes countries, but also the lowest level of spatial agglomeration among counties in Southern California.

The analysis presented in this section also provides evidence that spatial agglomeration tends to be higher for industrial sectors than for country of origin, except for countries with the largest number of FOEs in the area, like Japan and United Kingdom. This suggests that firms might be more likely to locate by Talwan and Switzerland. When measure in terms of the close to another firm in the same sector than to another firm number of employees, firms from Sweden, China, and Switzerland from the same country of origin, with the exception of Japan and United Kingdom.

Statistical correlation analysis reveals that cities with relatively high concentrations of FOEs have statistically larger labor forces and lower unemployment rates. At the same time, FOEs in these cities have statistically higher sales, more workers, and higher 3-year growth percentage in sales volume than FOEs in cities with lower concentration. The statistical analysis also suggests that spatial agglomeration based on sector might have larger impacts on economic development and growth than spatial agglomeration based on country of origin. These findings suggest that Southern California might have more to offer to prospective FOEs than has been previously identified in the academic literature.

# INTRODUCTION BACKGROUND

## **CLUSTERING ANALYSIS**

## **DISTANCE ANALYSIS**

Another, and probably more intuitive, approach to measure clustering is to take the firm perspective and consider how many FOEs from the same sector or the same county of origin are located within a predetermined radius. This information could be useful for existing firms and prospective investors to assess the level of competition and spillover benefits associated with spatial agglomeration in a particular area.

Once firms located inside the radius are identified, they are further classified based on whether they belong to the same industrial sector or the same country of origin. The results presented in Tables A-3 through A-6 utilize a 5 km radius and represent average measures.

**TABLE A-3** Average Number of Foreign-Owned Firms within a 5km radius

Sectors EXECUTIVE SUMMARY	Los Angeles	Orange	Riverside	San Bernardino	San Diego	Ventura
Natural Resources	146	162	35	71	5	38
Construction R B	215	239	F 51 R	E 62-	<b>-</b> 101	40
Manufacturing	156	214	51	113	100	39
Wholesale Trade	S 182 S	206	39	113	97	40
Retail Trade	172	184	29	75	73	47
As shown in Tables ES-1 and ES-2,	th <mark>ere are now an</mark>	estimated	Nearly half of	these <mark>firms and</mark> j	o <mark>bs are l</mark> ocated	in Los Angeles
9 6 TransagWarehousingmistiffesouth	ern Califf in a re	res hill g	County, with O	range County acc	counting for clo	se to one quarter.
1 23, st all firms in (126,0), he semployees, or 4 3% of the region in	(II) Th	.0 <sub>216</sub> them \$27.4	Retai <sup>80</sup> nc wh	ole al Thade con	tinue t%be large	est sec <del>10</del> rs for the
billioninanwagesrvices	211	174	number of fore	eigh owned in is	- 2,351 and 1,0	595 respectively –
This report explores numerous rese						of employment –
HADAPAR PHELIBREESSAIN EASIFAIDE SILE	oe: Waterplay Budding	utherp <sub>57</sub>	140,5 <u>%</u> 2 jobs -	- and tթţal estima	ate w <b>ągę</b> s – \$9	.7 billio <sub>40₄</sub>
California, with 2,465 firms paying 8	37,247 workers a	total of \$5.5				
California, with 2,465 firms paying & billion with its that and the source har one to the control of the source har one to the control of the	Fato Senthere 9	alifornia?	31	69	98	43
Source This report updates the 2015 i	eport FDI-related	d statistics				
Lipiseren's tospicatityer of firms, jo	bs, an wages.	Dun &213	30	92	84	52
Bradstreet firm-level data retri	eved in March 20	017 is				
Other Services complemented with Gulifornia	Employment De	173 pn	30	95	104	27
PERPARAMENT Wages to different categories. Dun & Bra	estimate tot ii w	y s f84		51	101	0

ultimate ownership of firms above a ten percent threshold, Betweend 2001-5 and 2001/6d this discration without height wife is the enternesses on the state of the jobsAincagathan the roll 1600 igner than a representation of foreignfirm inone weige sogles or ibed in this r

Source: Dun & Bradstreet, DHEI Analysis Of the top 10 firms by employment in 2016, only Switzerland and the Netherlands declined in employment. Collectively, this owned firms to the region.

Sectors	Los Angeles	Orange	Riverside	Bernardino	San Diego	Ventura
Natural Resources	NE A	NI'A I	VCIC	1	0	1
Construction	NUA		.1313	2	2	0

Manufacturing 1.9 A5 Spatial agglomeration refers to the clustering of firms within a partificularale qation. Firms locate nearby one another - fon example car dealerships, jewelry or fashion districts, or furniture is Tords - for many reasons, including being attractive to customers and workers from similar firms, being close to supply chains, and to be in ethnically familiar neighborhoods. For Southern California, spatial agglomeration is higher when it is based on industrial sector than when it is based on country of or fightan दाक्षी \$ suviçops sts that firms might b 19 more likely to 19 cate close to another firm in the same sector than to another firm from the same country of origin.

For industries when the number of firms, Financial Services and Professional and Business Services are the industries Leisure / Hospitality with the highest level of spatial agglomeration. When spatial agglomeration desmeasured with respect to the number of firms, Korea shows the highest levels in Southern California, followed **Public Administration** 

by Taiwan and Switzerland. When measure in terms of the number of employees, firms from Sweden, China, and Switzerland show the highest levels in Southern California.

10 18 20 14 Statistical correlation analysis reveals that cities with relatively high concentrations of FOEs have statistically larger labor forces and lower unemployment rates. At the same time, FOEs in these cities have statistically higher sales, more workers, and higher, 3-year growth percentage in sales volume than, FOEs in cities with lower concentration. The statistical analysis also suggests that spatial agglomeration based on sector might have larger impacts on economic development and growth than spatial agglomeration based on country of origin. These findings suggest that Southern California might have more to offer to prospective FOEs than has been previously identified in the academic literature. 1 0 0 2 0

Source: Dun & Bradstreet, DHEI Analysis

TABLE A-5
Average Number of Foreign-Owned Firms from the same Source Nation within a 5km radius

Sectors	Los Angeles	Orange	Riverside	San Bernardino	San Diego	Ventura
Natural Resources	16	17	4	6	1	1
NTRODUCTION	37	20	7	3	10	4
Manufacturing C D O	23	22	4	7	11	5
Wholesale Trade	42	28	4	7	11	3
Retail Trade	24	22	3	7	9	5
Transp, Warehousing, Utilities	32	26	7	8	15	4
Information	24	26	3	8	11	3
Financial Services	26	24	2	4	11	4
Prof / Business Services	31	24	4	10	11	4
Education / Health Care	14	20	3	7	9	7
Leisure / Hospitality	37	22	3	9	10	5
Other Services	26	26	3	3	11	4
Public Administration	9	7	0	0	2	0

Source: Dun & Bradstreet, DHEI Analysis

 TABLE A-6

 Average Number of Foreign-Owned Firms from the same Sector and Source Nation within a 5km radius

Sectors	Los Angeles	Orange	Riverside	San Bernardino	San Diego	Ventura
Natural Resources	0	0	0	0	0	0
Construction	1	0	2	1	1	0
Manufacturing	3	5	1	2	3	2
Wholesale Trade	13	8	1	2	2	1
Retail Trade	6	6	1	3	3	2
Transp, Warehousing, Utilities	5	1	1	1	1	0
Information	4	1	0	0	1	0
Financial Services	5	5	0	0	2	1
Prof / Business Services	6	7	1	1	4	1
Education / Health Care	1	0	0	1	1	1
Leisure / Hospitality	2	1	0	0	1	1
Other Services	1	0	0	0	0	0
Public Administration	1	0	0	0	0	0

Source: Dun & Bradstreet, DHEI Analysis

# CONTRIBUTION OF FOREIGN-OWNED ENTERPRISES

As shown in Tables ES-1 and ES-2, there are now an estimated 9.6. for eign-owned firms in Southern California representing 12.5 of all firms in southern California representing 12.5 of all firms in southern California representing the property of the southern of the south of the southern of the southe

Services are the triplest concentration areas of FOES in San Diego Charles the triplest concentration areas of FOES in San Diego Charles the Burn areas of the San Diego Charles the Burn areas of the San Diego Charles County shows the rightest fever of agglomeration.

Ultimate ownership of firms above a ten percent threshold,

Between your some percential inducation or this territory of the between some percentage of more than the content of the conte

Orange County. For San Diego County, the highest concentration is for FOE in Prof Business Services and Manufacturing, while shahigh a significant and perfect the investigation of the investigation. Firms locate nearby one another – for example car dealerships, jewelry or fashion districts, or furniture stores – for many reasons, including being attractive to customers and workers from similar firms, being close to supply chains, and to be in ethnically familiar neighborhoods. For Southern California, spatial agglomeration is higher when it is based on industrial sector than when it is based on country of origin. This suggests that firms might be more likely to locate close to another firm in the same sector than to another firm from the same country of origin.

For industries with a large number of firms, Financial Services and Professional and Business Services are the industries with the highest level of spatial agglomeration. When spatial agglomeration is measured with respect to the number of firms, Korea shows the highest levels in Southern California, followed

Nearly half of these firms and jobs are located in Los Angeles County, with Orange County accounting for close to one quarter.

Retail nowhole at trade continue to be largest sectors for the number of the largest sectors for the lar

Comparing the level of spatial agglomeration based on sector and country of origin (Table A-6), the results show that FOEs orndered by the point of the point of

Statistical correlation analysis reveals that cities with relatively high concentrations of FOEs have statistically larger labor forces and lower unemployment rates. At the same time, FOEs in these cities have statistically higher sales, more workers, and higher 3-year growth percentage in sales volume than FOEs in cities with lower concentration. The statistical analysis also suggests that spatial agglomeration based on sector might have larger impacts on economic development and growth than spatial agglomeration based on country of origin. These findings suggest that Southern California might have more to offer to prospective FOEs than has been previously identified in the academic literature.

# INTRODUCTION BACKGROUND

## **CLUSTERING ANALYSIS**

# STATISTICAL CORRELATION ANALYSIS

So far, our analysis has focused on identifying the county and sector level of spatial agglomeration based on the H-Index and the number of FOEs from the same sector or same country of origin within a predetermined radius. This section analyzes whether spatial agglomeration is correlated with measures of economic development and growth applying Analysis of Variance (ANOVA). ANOVA is a statistical tool that tests the hypothesis that the means of two different groups are statistically different. In this case, the null hypothesis is that the difference between two groups' means is not statistically significant and probably driven simply by randomness. This technique is applied here to test whether or not spatial agglomeration of FOEs is statistically correlated with city and firm level measures of economic development and growth.

At the city level, all FOEs are measured with respect to the average sales volume, number of employees, city-level labor force and unemployment rates, the 3-year growth rate in sales, and the 3-year growth rate in employment. Although arguably optimal measures of economic development and growth, these are intuitively good measures of economic conditions at the city level. At this stage, the ANOVA considers cities in Southern California and groups them in quartiles according to the number of FOEs. The following table presents the results at the city level.

#### **TABLE A-7**

**Summary Statistics for Agglomeration Regression Analysis** 

### **EXECUTIVE SUMMARY**

Variable **Statistic** Value \$4,045,456 Median ales Volume 44 Mean 3 Year Growth % Sales Volume Mean 1.44 Mean. 10.80 3 Year Growth % Employees As shown in Tables ES-1 and ES-2, there are now an estimated half of these firms and jobs are located in Los Angeles 6 Y ณ Yergharou คริง เปลี่ยที่ Walsine Southern Calif rn a re res nti g County, with Trange County 294c Winting for close to one quarter. 1 2 3 of all fir ns in the large of the second and the employees, or 4 3% Enables est in the second and the sec Retail nowerple ale trade on ninue to be largest sectors for the number of foleign swined imms - 2,351 and 1,695 respectively billion in wages. This report explores numerous research questions, including with manufacturing the largest sector in terms of employment -Hanapersteller is the large street the large street in the large s 140,582 jobs – and total estimate wages – \$9.7 billion. California, with 2,465 firms paying 87,247 workers a total of \$5.5 billion has a war and the series of the series 0.003 Mean Dinstances of Law meter of firms, jobs, and wages. Dun & Mean 66.2 Bradstreet firm-level data retrieved in March 2017 is Plistanget 9este Pedro Portsf (km) a Employment De Mean 63.5 epartment data on wages to estimate to 11 w y s for 165.6 Mean Dun & Bradstreet data only snows th मर्गमान्त्रकारकों p of firms above a ten percent threshold, Mean 157.0 Betweend 20015 and 20016d this discation without being the wind is the Of the top 10 firms by employment in 2016, only Switzerland enterperson somerger of an Capitation case by feet, in the stream, and the Netherlands decline different employment. Collectively, this jobs i**or sensing the Findest med the rangement in bauch jobs jobs** FOE Same Country of Origin in 5 km Radius firm i**aore wang spess** ribed in this r demonstrates the strong and growing contribution of foreignowned firms to the region

Source: Dun & Bradstreet, DHEI Analysis

4.6

Mean

## **CLUSTERING ANALYSIS**

FOE Same Country of Origin and Sector in 5 km Radius

#### **TABLE A-8**

ANOVA: Concentration Based on Number of FOEs at City Level Spatial agglomeration refers to the clustering of firms within by Taiwan and Switzerland. When measure in terms of the a particular location. Firms locate nearby one another - for number of employees, firms from Sweden, China, and Switzerland Low Concentration highest levels in Southern California. example car dealerships, jewelry or fashion districts, or furniture stores - for many reasons, including being attractive \$18.1 Statistical correlation analysis reveals that ostiges with relatively to customers and Weaklers from similar firms, being close to high concentrations of FOEs have statistically larger labor supply chains, and to be in ethnically familiar neighborhoods. 20forces and lower unemptoyment rates. At the same time, FOEs For Southern California, spatial agglomeration is higher when it in these cities have stațișțically higher sales, more workers, and is based on country 16,339 higher 3-year growth percentage in sales volume than FOEs in of origin. This suggests that firms might be more likely to locate 5. gities with lower concentration. The statistical analysis also close the another firm the same sector than to another firm suggests that spatial agglomeration based on sector might from the same country of origin.
3 Year Growth % Sales Volume 0. Plave larger impacts on economic development and growth than For industries with a large number of firms, Financial Services spatial agglomeration based on country of origin. These findings 11.4 suggest that Southern California might have more to offer to 3 Year Growth % Employees and Professional and Business Services are the industries with the highest level of spatial agglomeration. When spatial Note: \*\*\*\* refers to statistical significance at the 1%, 5%, and 10%, respectively source: Durk Bradstreet. DHEI Analysis agglomeration is measured with respect to the number of firms academic literature. Low and high FOEs concentration refers to cities in the lowest and highest quartile, respectively Korea shows the highest levels in Southern California, followed

According to the results, cities with higher concentrations of FOEs have statistically larger labor forces and lower unemployment rates. FOEs in these cities also have statistically higher sales, more workers, and higher 3-year growth rates in sales volume when compared with FOEs in cities with lower concentrations. To explore further the issue of spatial

agglomeration, this analysis groups cities in Southern California into quartiles according to the number of average number of FOEs located within a 5 km radius. The previous analysis considers only the number of FOEs in the city, while this quartiles approach considers cities with FOEs that are spatially agglomerated.

### INTRODUCTION

## TABLE A-9 ANOVA: Concentration Based on Number of FOEs Within a 5km Radius at City Level

Low Concentration			High Concentration	
Sales Volume (Mean)	\$29,800,000	*	\$53,500,000	
Number of Workers	20.9	***	37.6	
Labor Force	18,135	**	74,828	
Unemployment Rate	6.3	***	5.4	
3 Year Growth % Sales Volume	1.1		1.9	
3 Year Growth % Employees	9.5		8.6	

Note: \*\*\*, \*\* refers to statistical significance at the 1%, 5%, and 10%, respectively Low and high FOEs concentration refers to cities in the lowest and highest quartile, respectively

Source: Dun & Bradstreet, DHEI Analysis

Results in Table A-9 show that cities with higher levels of spatial agglomeration tend to have larger labor forces and a lower unemployment rates. FOEs in these cities also tend to have larger average sales and larger average numbers of employees. Although there is a natural overlap of cities in the high concentration categories of the previous two tables, cities classified as high concentration in the number of FOEs are not necessarily those same cities classified as having high spatial agglomeration.

This analysis also examines whether or not firms are more likely to locate in the proximity of another firm from the same

sector or of another firm from the same country of origin.

Although there is some overlap in the cities for both groups,

Table A-10 presents support that FOEs located in cities with
high agglomeration of firms from the same sector tend to have
higher average sales volume and employ more workers than

FOEs located in cities with high spatial agglomeration based on
the country of origin. These FOEs also tend to have higher 3-year
growth rates in sales and employment. These results suggest
that spatial agglomeration based on sector might have larger
impacts on economic development and growth than spatial
agglomeration based on country of origin.

TABLE A-10
ANOVA: Concentration Based on Number of FOEs Within a 5km Radius at City Level

	Sector High Concentration		Country of Origin High Concentration
Sales Volume (Mean)	\$60,700,000	**	\$48,500,000
Number of Workers	37.6	*	35.9
Labor Force	73,965		75,982
Unemployment Rate	5.3		5.3
3 Year Growth % Sales Volume	2.6	*	2.2
3 Year Growth % Employees	14.2	**	9.0

Note: \*\*\*,\*\*,\* refers to statistical significance at the 1%, 5%, and 10%, respectively High concentration FOEs refers to cities in the highest quartile based on the number of firms in the same sector and the number of firms from the same country of origin, respectively

Source: Dun & Bradstreet, DHEI Analysis

## CONTRIBUTION OF FOREIGN-OWNED **ENTERPRISES**

As shown in Tables ES-1 and ES-2, there are now an estimated 6 foreign-owned firms in Southern Califirm a regres into g 1 23 of all firms in recersion, the string multiple at 200 center of the region by vivil a state of but them \$27.4

**QLUSTEPING ANALYSIS**This report explores numerous research questions, including Japaneselfungs nemain the largest contributor to Southern California At 1 465 irm s pay on 67 4 y or ers a total of \$5.5 bursh but, sa a copt ibu o 66 1 a to at the ere call fornia? source nations. updates the 2015 report FDI-related statistics

source hattons: updates the 2013 tepoit PDF-telated statistics in terms of number of firms, jobs, and wages. Dun & This section compared two methods to identify and measure Bradstreet firm-level data retrieved in March 2017 is the level of spatial agglomeration among FUEs: the city-level complemented with the complemented with the complemented with the property of the city-level of the complemented with the complemented with the property of the city-level of jobs increasing the 17 20 6854 anealther angeogentur Aberuch jobs fixed unindently gestiness on beau intritess with large number of FOEs in Southern California, like Japan and the United Kingdom, this analysis found some evidence that spatial agglomeration is larger when based on sector than when based on country of origin. In other words, FOEs locating in Southern California will tend to locate close FOEs from the same industrial sector, rathe than locating nearby FOEs from the same country of origin. For

Spatier secretive FA Eatherse secultie might enrich sinthein denision avbaratollagotoavithir for the tate alterby one another - for example car dealerships, jewelry or fashion districts, or furniture stores – for many reasons, including being attractive to customers and workers from similar firms, being close to supply chains, and to be in ethnically familiar neighborhoods. For Southern California, spatial agglomeration is higher when it is based on industrial sector than when it is based on country of origin. This suggests that firms might be more likely to locate close to another firm in the same sector than to another firm from the same country of origin.

For industries with a large number of firms, Financial Services and Professional and Business Services are the industries with the highest level of spatial agglomeration. When spatial agglomeration is measured with respect to the number of firms, Korea shows the highest levels in Southern California, followed

Nearly half of these firms and jobs are located in Los Angeles County, with Orange County accounting for close to one quarter.

Retail no whole all trade continue to be largest sectors for the number of foleign wined imms - 2,351 and 1,695 respectively with manufacturing the largest sector in terms of employment -140,582 jobs - and total estimate wages - \$9.7 billion.

This analysis also explored whether spatial applomeration is correlated with economic development and growth. This analysis found statistical evidence that cities with higher levels of spatial agglomeration tend to have larger labor forces and lower unemployment rates. FOEs located in these cities also tend to have higher sales volumes and more employees. In Of the top 10 firms by employment in 2016, only Switzerland some cases they also have higher 3-year growth rates in sales and the Netherlands declined in employment. Collectively, this analysis found that FUEs in demonstrates the strong and growing contribution of foreign-cities with high levels of spatial agglomeration by sector show owned firms to the region. higher 3-year growth rates in sales volume and employment. than FOEs in cities with high levels of spatial agglomeration based on country of origin. All of these suggests that Southern California might have more to offer to prospective FOEs than had previously been documented.

by Taiwan and Switzerland. When measure in terms of the number of employees, firms from Sweden, China, and Switzerland show the highest levels in Southern California.

Statistical correlation analysis reveals that cities with relatively high concentrations of FOEs have statistically larger labor forces and lower unemployment rates. At the same time, FOEs in these cities have statistically higher sales, more workers, and higher 3-year growth percentage in sales volume than FOEs in cities with lower concentration. The statistical analysis also suggests that spatial agglomeration based on sector might have larger impacts on economic development and growth than spatial agglomeration based on country of origin. These findings suggest that Southern California might have more to offer to prospective FOEs than has been previously identified in the academic literature.

# **SURVEY ANALYSIS**

A survey of FOEs in Southern California was conducted by DHEI between January and May of 2017. This survey aims to better-understand the contribution of these 9,000+ businesses to the regional economy, their motivations for locating in Southern California, their experiences doing business here, and which factors encourage foreign firms to continue a presence the region.

The survey was administered through phone calls and an online instrument. All 9,105 firms from the 2016 dataset were contacted, via email or phone call. A total of 143 responses were collected; similar to the 118 responses collected in the 2009 survey.

In contrast to the 2009 survey, for which respondents were largely Japanese (63%) and Manufacturing (44%) firms, and all located in Los Angeles County, respondents to the 2017 survey were spread across numerous sectors, source nations, and counties within Southern California, as shown in Tables S-1, S-2, and S-3 below.

As with the 2009 report, the majority of respondents were positive about their business experiences within Southern California. In the 2009 report, the majority of respondents were particularly concerned about the state and regional economic climate, which is unsurprising given the recent global financial crash. However, other factors were of particular concern to respondents, including: housing affordability, public safety/ crime, commercial/industrial price/availability, energy supply/ prices, labor costs, obtaining skilled employees, K-12 education quality, business taxes, and regulatory environment/permit procedures.

As shown in Tables S-10 and S-11, the 2017 survey found that the most pressing risk factors in general for respondents were customer satisfaction/retention, labor and HR issues, political and regulatory uncertainty, currency volatility, and tougher competition. Specific to business within Southern California, respondents reported concern over trade and investment

restrictions, delays for business visas for overseas visas, taxes, labor costs, and housing affordability.

Similar to the 2009 survey, when considering future investments, 2017 survey responses favored expansions of current facilities and growth into new facilities (see Tables S-5 through to S-9). A larger proportion of respondents in 2017 appear to be considering relocation. In terms of potential for new investment, of those responding, most are considering Los Angeles County, followed by San Diego County, and Orange County. Within other areas of California, the Bay Area is the most popular response. Outside of California, investment potential is spread across the US, with a slight preference for the states of Texas, New York, Hawaii, Nevada, and Florida. Outside the US, Asian countries were significantly the most popular potential market, followed by Canada and Europe.

In terms of connections to other institutions, as shown in Table S-12, respondent FOEs are most likely to be in contact with industry organizations and local or city governments. While a majority of respondents still engage with local chambers of commerce and local home-nation consulates, the numbers are significantly lower than for industry organizations and local and city governments. This last figure appears to be consistent over time, as 2009 respondents all reported favorable interactions with local government offices.

As shown in Table S-13, respondents were asked to report which regional programs would benefit their company. The most popular response was "Economic reports on local markets", followed by "Public road network investment", "Training and workshops on doing business in Southern California (export training, etc...)" and "Workforce development initiatives, such as job-training, layoff support". It is notable that there was significantly less interest in "Public mass-transit investment", "Sister-city/sister region programs connected to a city in your home country", "Matchmaking events" and "Trade missions abroad".





Wholesale Trade As shown in Tables ES-1 and ES-2, there are now an estimated 6 Rétateligadewned firms in Southern Calif. in a re365%nti g of all firms in the riot. The serie ma employeesocietons:Wafehousing and Utilities; 1

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Qhamate Garage of firms above a ten percent threshold.

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% of respondents

16%

16%

**Source Nation** 

Luxembourg

Taiwan

demonstrates the strong and growing contribution of foreignowned firms to the region. **TABLE S-4** % of Survey Respondents by County

% of respondents

16.1%

FIGURE S-1

present business experience in the Southern California region? Response Count

Of the top 10 firms by employment in 2016, only Switzerland

and the Netherlands declined in employment. Collectively, this

How would you rate your company's

% of

Responses

County os Angele 53.2%

Spatial agglomeration refers to the clustering of firms within a particular location. Firms locate nearby one another – for example real edealerships, jewelly or fashion districts a Regularion furniture stores - for many reasons, including being attractive to customers and workers from similar firms, being solo sie to supplyaohdans, and to be in ethracally familiar neighborhoods. For Southern California, spatial agglomeration is higher when it is based on industrial sector than when it is based on country of origing This asuggests that forms might be more likely to locate close to another firm in the same sector than to another firm from the same country of origin.

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Good by Taiwan and Switzerland. When measure in terms of the number of employees, firms 4 in 18 witzerland show the highest levels in Southern California.

Statistical correlation analysis reveals that cities with relatively high concentrations of FOEs have statistically larger labor forces and lower unemployment rates. At the same time, FOEs in these cities have statistically higher sales, more workers, and higher 3-year growth percentage in sales volume tham 50%s in cities with lower concentration. The statistical analysis also suggests that spatial agglomeration based on sector might have larger impacts on economic development and growth than spatial agglomeration based on country of origin. These findings suggest that Southern California might have more to offer to prospective FOEs than has been previously identified in the academic literature.

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NF C	ated in cos Airgeles clos to be quarter.  Unsatisfactory gest sectors for the 1,695 respectively – ms of employment – \$9.7 billion.

How would you rate your company's present busines.

experience in the Southern California region?

TABLE S-5
What are your company's plans for investment and business operations within southern california over the next two years?

Response KGROIND	Count
Expansion of existing facilities or branches (including purchase of equipment)	46
Establishment of a new facility or branch	43
Investment in a different business sector	18
Scale-down or closure of existing facility	10
Relocation of branch or facility within Southern California	11
Relocation of branch or facility within California	12
Relocation of branch or facility outside California	6
Revision of the role of existing facilities or branches	11
Nothing in particular	38

#### **TABLE S-6**

Within Southern California, which area holds the most potential for new investment by your company?

County	Responses
Los Angeles	33
Orange	13
Riverside	10
San Bernardino	5
San Diego	15
Ventura	4

## **TABLE S-7**

Within the rest of California, which area holds the most potential for new investment by your company?

Region	Responses
Bay Area	15
Central California	5

## **TABLE S-8**

Outside California, but within the United States which area holds the most potential for new investment by your company?

State	Responses
Texas	5
New York	4
Hawaii	3
Nevada	3
Florida	3
Colorado	2
Washington	2
Virginia	2

## **TABLE S-9**

Outside the United States, which area holds the most potential for new investment by your company?

Country/Region	Responses
Canada	4
Mexico	1
China	3
Other Asia	8
Europe	4

#### **TABLE S-10**

What is the likelihood the following risk factors will influence your company's earnings over the next three years?

## **EXECUTIVE SUMMARY**Factor

**Average Score** 

## Customet Satisfaction/Retention 3.59 Labor and HR issues 3.28

Political/regulatory uncertainty 3.18

Currency volatility 3.13

As shown in Tables E.S.1 and E.S.2, there are now an estimated 9 6 Tak reign-owned firms in Southern Calif in a re rest atting 1.3.3 of all firms in Southern Calif in a re rest atting country risk/geopolitical challenges of the reliable o

billion nationages.

This report explores numerous research questions, including hand the least tentrie who was Southern California, with 2,465 firms paying 87,247 workers a total of \$5.5 billion. UK, Canada, France and Correct Southern California? Southern California?

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Betward 2005 and 2006 the dication officility how field is the enterprise of southern validation officility how for interpretation of the control of the southern validation of the control of the contro

firm inches in the first price of a tility 2.53

Infrastructure failure/breakdown 2.44

### **TABLE S-11**

How important are the following concerns regarding your company's future business operations in Southern California?

Factor Average Score

Trade/investment_restrictions	3.67
Delays for business visas for overseas visas	3.61
Taxes	3.44
Labor costs	3.39

Retaith inswande/rate trasts continue to be largest se8t28s for the number of foreign owned imms = 2,351 and 1,695 respectively = 0.25 overseas competition 3.24 with manufacturing the largest sector in terms of employment = 140/5020/obsal-regulators estimate wages = \$9.7 billion7

Transportation infrastructure	3.12
Public safety/crime	3.11
Energy prices/supply	3.00
Permit approval procedures	2.94
Driver's license issuance delays for expatriates	2.65

Of the top 10 firms by employment in 2016, only Switzerland **THE SIGN** erlands declined in employment. Collectively, this them importants after following growning operations:

White printers operations in Southern California?

Responses

Terrorism STED G 2.38
Public mass transit investment 24
Public road network investment 39

Regional Programs

Contacts with industry organizations, chambers of commerce. Spatial additional profession like and local governments a particular location. Firms locate nearby one another – for examply cardealerships, jewelry or fashion districts, as furniture stores – for many reasons, including being attractive to customers and workers from similar firms, being close to supply characoand to be in ethnically familiar free ghborhoods. The Southern California, spatial agglomeration is higher when it is based of should always that firms might be more likely to locate close to another from the same counts with the same sector than to another firm from the same counts with the same sector than to another firm from the same counts with the same sector than to another firm

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## CONTRIBUTION OF FOREIGN-OWNED ENTERPRI

Nearly half of these firms and jobs are located in Los Angeles As shown in Tables ES-1 and ES-2, there are now an estimated 6, foreign owned firms in Southern Calif on a representing County, with Orange County accounting for close to one quarter. 1 23 of all firms in recersor, the strict multiple 22.0 cm employees, or 4 3% of the region workers and by them \$27.4 billion in wages.

This report explores numerous research questions, including Hananes entries demais the Hansest contributor to Southern California, with 2,465 firms paying 87,247 workers a total of \$5.5 billion Dock, canada, translet and Germany Southers a total of \$5.5 source his feorest updates the 2015 report FDI-related statistics

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Of the top 10 firms by employment in 2016, only Switzerland and the Netherlands declined in employment. Collectively, this demonstrates the strong and growing contribution of foreignowned firms to the region.

## **CLUSTERING ANALYSIS**

Spatial agglomeration refers to the clustering of firms within a particular location. Firms locate nearby one another - for example car dealerships, jewelry or fashion districts, or furniture stores – for many reasons, including being attractive to customers and workers from similar firms, being close to supply chains, and to be in ethnically familiar neighborhoods. For Southern California, spatial agglomeration is higher when it is based on industrial sector than when it is based on country of origin. This suggests that firms might be more likely to locate close to another firm in the same sector than to another firm from the same country of origin.

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# INTRODUCTION BACKGROUND

## **APPENDICES**

## APPENDIX AX

#### LOCATIONS OF FOREIGN-OWNED BUSINESSES IN THE SOUTHERN CALIFORNIA REGION, BY SOURCE NATION AND INDUSTRY

The heat maps in Figures A1-10 represent the clusters of foreign-owned businesses in Southern California (except San Diego, which is omitted for resolution reasons), with respect to the top 5 source nations (Figures A1-5) and industries (Figures A6-10) by number of firms. There are notable clusters of Japanese-owned companies in Culver City, Torrance, Westminster, Lake Forest, and Downtown. For UK-owned companies, the prominent clusters are in El Segundo, Costa Mesa, Santa Monica, and Downtown LA. While German-owned companies are most concentrated in Newport Beach, Frenchowned companies are more evenly dispersed around the region, with stronger presence in Santa Monica, El Segundo and Century City. Canadian-owned companies have notable clusters in Lake Forest and Santa Monica.

In terms of foreign-owned businesses by industry, there are strong manufacturing clusters in Lake Forest, Costa Mesa/Irvine and Corona, while wholesale trade is more evenly distributed across the region, despite large clusters in Lake Forrest, Westminster and Downtown LA. In terms of retail trade, the strongest clusters appear to be centered on major shopping malls such as South Coast Plaza in Costa Mesa and Westfield Topanga in Canoga Park; however, there are notable larger but less dense clusters in West LA/Santa Monica and Carson/Torrance/Redondo Beach. Finance and insurance foreign-owned businesses are clustered in Newport Beach and Downtown LA, while professional and business services are clustered in Lake Forest, Costa Mesa, Downtown LA and Santa Monica.

**FIGURE AX-1** EXECUTIVE Gign Town ed Bosinesses in the Southern California Region: Japan As shown in Tab Los Angeles 6 foreign-ow to one quarter. of all fir ns t sectors for the employees, or 4 5 respectively billion in wages. f employment -This report explo 140,582 jobs – and total estimate wages – \$9.7 billion. California, with 2,465 firms paying 87,247 workers a total of \$5.5 billion. Wit, ic the contribution of contribution of contributions of contributions. The contributions of con Bradstreet 1 complemer Departmen different ca ultimate ow Betweend 2007e5 an Switzerland enterpæissels of So ollectively, this jobs increamingth on of foreign-

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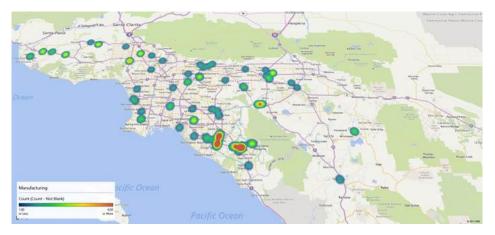
FIGURE AX-4
Foreign-Owned Businesses in the Southern California Region: France



**FIGURE AX-5**Foreign-Owned Businesses in the Southern California Region: Canada



FIGURE AX-6
Foreign-Owned Businesses in the Southern California Region: Manufacturing



**FIGURE AX-7** EXECUTIVE og iph fowned the sinesses in the Southern California Region: Wholesale Trade As shown in Tab Los Angeles fc reign-ow to one quarter. of all fir ns t sectors for the employees, or 4 5 respectively billion in wages. f employment -This report explo 140,582 Jobs – and total estimate wages – \$9.7 billion. HANDANGE AHE LIBS TELEMENT SARIHAR SHE ENTING A FOLLOW SOUTHELL California, with 2,465 firms paying 87,247 workers a total of \$5.5 billion. UK, canada the contribution of Fors to Southern California?

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**FIGURE AX-10**Foreign-Owned Businesses in the Southern California Region: Professional/Business Services



FIGURE AX-11
Foreign-Owned Businesses Entering the Southern California Region in 2017

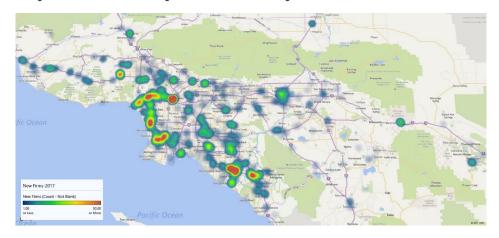
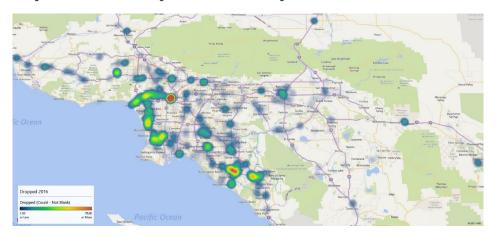


FIGURE AX-12
Foreign-Owned Businesses Leaving the Southern California Region in 2017



# OF FOREIGN-OWNED

Bridging Scheme Between Sectors in 2016 Report and D&B Datase As shown in Tables ES-1 and ES-2, there are now an estimated Nearly half of these firms and jobs are located in Los Angeles "Bridging Scheme (to sectors in 1)&B dataset) fereign-owned firms in Southern Califern a recres into g sector (As reported in 2016 report) of all firms in (1.37.0) its rule in the control of the control

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Professional, Scientific, and Technical Services; Administrative Support; Waste Management and Remediation Services; Management of Companies and Englished Land When measure in terms of the number of employees, firms from Sweden, China, and Switzerland

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Statistical correlation analysis reveals that cities with relatively

Accominous nor ation's efvices, a have statistically larger labor For Southern California, spatial agglomeration is higher when it ation forces and lower unemployment rates. At the same time, FOEs in these cities have statistically higher sales, more workers, and of origin. This suggests that firms might be more likely to locate the suggest that firms might be more likely to locate the suggest that firms might be more likely to locate the suggest that firms might be more likely to locate the suggest that firms might be more likely to locate the suggest that firms might be more likely to locate the suggest that firms might be more likely to locate the suggest that firms might be more likely to locate the suggest that firms might be more likely to locate the suggest that firms might be more likely to locate the suggest that firms might be more likely to locate the suggest that firms might be more likely to locate the suggest that firms might be more likely to locate the suggest that firms might be more likely to locate the suggest that firms might be more likely to locate the suggest that firms might be more likely to locate the suggest that firms might be more likely to locate the suggest that firms might be more likely to locate the suggest that the sug cities with lower concentration. The statistical analysis also suggests that spatial agglomeration based on sector might Public Advantaged impacts on economic development and growth than spatial agglomeration based on country of origin. These findings 2.65 suggest that Southern California might have more to offer to prospective FOEs than has been previously identified in the academic literature.

