



# ORANGE COUNTY FOCUS:

## Forging Our Common Future

CENTER FOR  
DEMOGRAPHICS & POLICY  
**RESEARCH BRIEF**  
CHAPMAN UNIVERSITY



# ORANGE COUNTY FOCUS:

## Forging Our Common Future

CENTER FOR  
DEMOGRAPHICS & POLICY  
RESEARCH BRIEF

Co-authors:

**Joel Kotkin and Marshall Toplansky**

Research Team:

**Wendell Cox, Ali Modarres, Alicia Kurimska,  
Anthony Lemus, Robert Roussel,  
and Charlie Stephens**

Editor:

**Zina Klapper**

Videography:

**Amanda Horvath**

  
CHAPMAN  
UNIVERSITY  
PRESS



# CHAPMAN UNIVERSITY

---

## Center for Demographics and Policy

“Demographics is destiny” has become somewhat overused as a phrase, but that does not reduce the critical importance of population trends to virtually every aspect of economic, social and political life. Concern over demographic trends has been heightened in recent years by several international trends—notably rapid aging, reduced fertility, large scale migration across borders. On the national level, shifts in attitude, generation and ethnicity have proven decisive in both the political realm and in the economic fortunes of regions and states.

The Center focuses on research and analysis of global, national and regional demographic trends and also looks into policies that might produce favorable demographic results over time. In addition, it involves Chapman students in demographic research under the supervision of the Center’s senior staff. Students work with the Center’s director and engage in research that will serve them well as they look to develop their careers in business, the social sciences and the arts. They have access to our advisory board, which includes distinguished Chapman faculty and major demographic scholars from across the country and the world.

## ACKNOWLEDGEMENTS

This project was the result of a great group effort. We want to acknowledge the leading role played by the leadership of Chapman University, notably President Daniele Struppa, the dean of Communications, Lisa Sparks, and the dean of the Argyros School of Business, Tom Turk. We also received support through the generous gift of Chapman Trustee and Orange business executive Roger Hobbs. We also are grateful for the hard work put in by the Office of Research's Tom Piechota and his team. Our administrators, Abbey McCoy and Mojgan Sohrabian played critical roles throughout the project. And finally, we would like to thank our designer extraordinaire, Eric Chimenti, whose creative genius shaped this document.



CHAPMAN  
UNIVERSITY

**School of Communication Studies**

**Argyros School of Business and Economics**

This effort would never have been possible without the generosity of our donors. We are particularly grateful for the role played by the Irvine Company, notably Donald Bren, Doug Holte, Paul Hernandez, Julie Rickert and Steve Case not only as sponsors but in actively setting up interviews and introducing us to potential donors. We also received great support from the County of Orange, the Kay Family Foundation, the Beall Family Foundation, KPMG, Ernst and Young, the Wells Fargo Foundation, the JP Morgan Chase Foundation, Edwards Life Sciences, Irving Chase, and The Cicero Group. All these sponsors provided us not only with support, but insights.

The OC Focus received a lot of great input from our remarkable board of advisors, chaired by Experian's Kristen Simmons. She was joined by Carey Ranson of Inspiration.com, Bill Carpou from OCTANe, Lucy Dunn, President of the Orange County Business Council, Kim Letch of Ernst and Young, Richard Sudek and Carolyn Stephens from the Cove at UCI, Deborah Diep from Calstate Fullerton, Mishal Montgomery from Anaheim Mayor Tom Tait's office, Orange County CEO Frank Kim, County Supervisor Michelle Steel, Francine Scinto of Tustin School District, Michael Christiansen, former head of the Orange Unified School District, Tony Lemus, Michael Ruane of National Core and Karla Lopez del Rio of Neighborworks Orange County.

Then, of course, we thank the students from Chapman University who worked on and helped shape this effort. The team included Grant Fegan, Maurice ("Andre") Cabrera, Jessica Grima, Alex Thomas, Gianina Hatton, Ethan Stupp, Lily Foster, Claire Gatzke, Madasen McGrath, David Johnson, Erika Orejola and Medha Vishwanath. They not only provided research and insights for the project but, as the next generation, served as a motivation for the authors.

## AUTHORS

**Joel Kotkin** (co-author) is the RC Hobbs Presidential Fellow in urban futures at Chapman University and director of the Chapman Center for Demographics and Policy and executive director of the Center for Opportunity Urbanism in Houston, Texas. He is author of eight books and co-editor of the recently released *Infinite Suburbia*. He also serves as executive editor of the widely read website [www.newgeography.com](http://www.newgeography.com) and a regular contributor to the Orange County Register, Forbes.com, Real Clear Politics, the Daily Beast and the City Journal.

**Marshall Toplansky** (co-author) is Clinical Assistant Professor of Management Science at Chapman University's Argyros School of Business and Economics, and Research Fellow at the university's C. Larry Hoag Center for Real Estate. He is also Senior Advisor of The Cicero Group, based in Salt Lake City, Utah. A pioneer in the use of big data and sentiment analysis, Marshall is formerly Managing Director at KPMG, and co-founder of the firm's Lighthouse Center of Excellence for Data & Analytics.

## MARKETING AND MEDIA

**Charlie Stephens** (social media coordinator) works with leaders to weave new identities and frameworks that build strong brands and create thriving communities. He is currently a Senior Analyst at the brand consulting firm, Innovation Protocol, where he has worked with companies such as PayPal, Korn Ferry, Bureau Veritas, and the Diocese of Orange. Charlie has also performed research for MIT's *Future of Suburbia* and Chapman University's *Building Cities for People*, and has co-authored articles for the Orange County Register and The Daily Beast. Charlie holds a dual degree in Business Administration and Public Relations/Advertising from Chapman University, and an MBA from Chapman's Argyros School of Business and Economics.

**Amanda Horvath** (videographer) runs a Video Marketing Business based out of Austin, TX that helps small to medium sized businesses clarify their message and gain influencer status through the use of content creation. She's worked with brands such as Tim Ferriss, Ryan Holiday, Bicycle Sport Shop, Acton Academy and many more.

## RESEARCH TEAM

**Wendell Cox** (demographic consultant) is a senior fellow at the Center for Opportunity Urbanism in Houston and the Frontier Centre for Public Policy in Canada. He was appointed to three terms on the Los Angeles County Transportation Commission, served on the Amtrak Reform Council and served as a visiting professor at the Conservatoire National des Arts et Metiers, a Paris university.

**Ali Modarres** (geographer) is the Director of Urban Studies at University of Washington Tacoma. He served as the editor of *Cities: The International Journal of Urban Policy and Planning* from 1999 to 2017. Dr. Modarres earned his Ph.D. in geography from the University of Arizona and holds master and bachelor degrees in landscape architecture from the same institution. He specializes in urban geography and his primary research and publication interests are the socio-spatial urban dynamics of American cities. He has published in the areas of social geography, transportation planning, immigration and public policy. Some of his recent publications appear in *Current Opinions in Environmental Sustainability*, *Current Research on Cities*, *Transport Geography*, and *International Journal of Urban and Regional Research*.

**Alicia Kurimska** (lead researcher and copyeditor) has worked both for the Center for Opportunity Urbanism and Chapman University's Center for Demographics and Policy. She is also an editor for NewGeography.com, a website focusing on economics, demographics, and policy. She is co-author of *The Millennial Dilemma: A Generation Searches for Home... On Their Terms* report.

**Anthony Lemus** was a senior executive in technology, operations, and business development at Allergan, Johnson & Johnson, Pfizer, and EndoPharmaceuticals. He has a plethora of patents, founded two start up bio-medical companies and was a senior partner & co-founder of a highly successful predictive analytics consulting firm assisting S&P 100 clients with strategic marketing and business operations. Anthony joined the Magis Institute, founded by the renowned Jesuit priest and philosophical expert Father Robert Spitzer, to help innovate contemporary instructive products assisting people's discernment of faith, science, and reason.

**Zina Klapper** (editor) is a writer/editor/journalist with many years of national credits. Most recently, she edited and helped develop a signature 1,200-page volume of 52 essays for MIT's Center for Advanced Urbanism, scheduled for publication by Princeton Architectural Press in 2017. During the past decade, her international media outreach and writing for the Levy Economics Institute of Bard College has included numerous commentaries on major news outlets worldwide.



# TABLE OF CONTENTS

<b>SECTION ONE:</b> Executive Summary .....	9
<b>SECTION TWO:</b> The Pro-Tech Challenge .....	10
Assessing Our Current Strengths in Pro-Tech, and Introducing "Life-Tech" .....	12
Assessing Our Geography .....	14
Is Silicon Valley Duplicable .....	15
A Pro-tech Economic Strategy with OC Characteristics .....	17
<b>SECTION THREE:</b> OC Focus on the Talent Imperative .....	20
Our Primary Asset: Quality of Life .....	21
Ranking Orange County .....	23
OC: Family Friendliness is Key Asset .....	24
The Good News: As a Product, it is Widely Appreciated by Those who Know it Best .....	24
Our Biggest Challenge: High Housing Costs Chasing Away Professionals .....	25
County Migration Trends: Older and More Diverse, With Fewer Newcomers .....	26
Sidebar: Our Most Threatened Asset, Young Families .....	28
Millennial Challenge .....	29
The Increasing Importance of Diversity .....	30
The Critical Importance of the Native-Born Population .....	31
Growth in Poverty .....	32
<b>SECTION FOUR:</b> A New Policy Agenda for Growth, The Urban Form, Education, Infrastructure and Poverty .....	34
Needed: A Business Strategy for OC .....	35
From Mass Suburbia to 'Cool Findings' .....	37
Spaces of the Future .....	39
Transportation, Transit and Future of Mobility .....	40
Addressing the Housing Crisis .....	42
Sidebar: Turning Around Garbage Grove .....	44
The Fate of the OC's Working Class .....	45
The Education Imperative .....	46
<b>SECTION FIVE:</b> Marketing the Dream .....	48
The Critical Role of Marketing in Modern Economics .....	49
Taking Growth for Granted .....	50
What Our Competitors Get... And We Don't .....	50
What is Our Story and Our Brand? .....	52
<b>CONCLUSION:</b> OC's Necessary Fourth Transition .....	53
Endnotes and Sources .....	56



Old Town Orange Neighborhood.  
photo by Ethan Stupp

## SECTION ONE: EXECUTIVE SUMMARY

Orange County is, in many ways, among the nation's best of places to live and work, but also one whose very attractiveness threatens its long term social, economic and environmental sustainability.

Much of this report is built around the assumption that Orange County will retain its allure for those who have the means and opportunity to live here. Few locations possess its combination of cultural and natural assets, talent, and innovative spirit. These attractions have helped make Orange County the nation's sixth largest county in terms of its output, which is larger than that of 25 states.<sup>1</sup>

Yet, as we discovered in our initial report, "The OC Model," Orange County faces severe challenges on numerous fronts.<sup>2</sup> The area has continued to lag competitors in high paying job creation in relation to its most dynamic high cost rivals, the Bay Area and Seattle, as well as to those like Austin, Dallas, Denver and Phoenix, that offer lower housing prices, a more pro-business environment, and often more compelling career opportunities. This can be seen in such crucial fields as professional and business services, and in high-technology and finance, where our relative strength, while still impressive, has been stagnant and, in some cases, has even decreased.

Maintaining and then expanding OC's presence in these fields should be the dominant focus of future development efforts, along with expanding the opportunities for middle-skill jobs. Given the current regulatory environment in California and the likely persistence of high housing prices, Orange County must nurture high wage employment in promising fields like data analytics, med-

ical technology, and design, which pay enough to allow millennial and Generation X workers to stay here. At the same time, we must maintain our strengths in real estate and finance. Without growth in these select sectors, the county will continue to age rapidly, and become akin to places like Hawaii or Palm Beach, Florida — retirement-oriented communities serviced by low-wage workers.

This leads to our second challenge, how to grow opportunity for the region's working and middle-class residents. Despite its reputation as an abode for the rich, or at least the very affluent, barely one in three OC residents earns over \$75,000, a significantly lower level than many of our competitors. Much of

*Orange County must nurture  
high wage employment in  
promising fields like data analytics,  
medical technology, and design...*

our job growth in recent years has been concentrated in lower-wage sectors, like hospitality, restaurants and personal services. This has left far too many struggling to make ends meet. In the worst cases, residents find themselves part of a growing segment living in overcrowded conditions or even in the expanding homeless encampments.

Given these realities, special attention must be given to providing not just more affordable housing, but also skills training for our less prosperous families. This should include job training for high value-added industries like technology, advanced manufacturing, design, and medical devices. As OC matures and its population becomes more dependent on those raised here, finding ways to utilize

our local workforce has become a critical priority.

Fortunately, the county possesses the resources and economic potential to address these challenges. The extent of poverty remains considerably lower than in some surrounding areas, such as Los Angeles, and our education system is far more effective. Our base of upwardly mobile industries remains robust and could become even more so, providing opportunities to both highly educated and working-class residents. Due to our unique confluence of tech, design, and arts industries, we remain well positioned to lead in the growing integration of the digital world with lifestyle. This is reflected in our robust and growing entrepreneurial sector.

Ultimately, though, our county's future relies on the will and energy of its residents. Partly because of our long history of somewhat effortless success, we have done very little to shape a common vision or organize our business community to promote and market the region. This is particularly notable in terms of media and marketing, compared to regions from San Diego to New York that have developed strong business links among local companies and a powerful

outward facing effort to appeal to those outside their region.

Orange County, according to our survey and media analysis, is somewhat “off the radar” for individuals and companies to consider it as a place to live and invest. This can be corrected with strong action by business, government and the non-profit sector. We already have what other places can only dream about: a well-educated workforce, ample open space, vibrant cultural institutions and a diverse, energetic population.

The raw materials for a return to strong growth and optimism are all there. It is up to us to catalyze them into a powerful competitive advantage.

## SECTION TWO: THE PRO-TECH CHALLENGE

The future of high-cost Orange County depends on its ability to attract and nurture high-wage employment. Whether employment growth comes from new enterprises or from the expansion of existing companies, Orange County needs to focus on this job-creation challenge.

Since the Great Recession, OC has recovered, but not nearly as well as Northern California, and lagged behind both the state and the nation in job and wage increases. Cal State Fullerton forecasts that the county will suffer the most anemic rate of job growth of any part of Southern California over the next three years.<sup>3</sup> In 2017 OC accounted for 12.5 percent of all California's major layoffs, well above its 8.3 percent share of the state's jobs.<sup>4</sup> (see Figure 1) The slowdown has spanned a broad range of industries.

Besides reinvigorating high wage growth, we need to reverse a disturbing and growing dependence on low wage sectors like hospitality, whose share of

### CHANGE IN EMPLOYMENT Orange County and United States 2010–2016



Figure 1

the OC workforce is the highest it has been in over a quarter century; overall, its share is larger than that of business and professional services. From 2003 to 2015, employment rose in arts and entertainment, health care, social assistance, and the accommodation and food services industries. As their share of overall county businesses has increased, employment has declined in other, often higher paying industries.<sup>5</sup> OC's recent job gains are now concentrated in both the historically volatile construction sector, and in hospitality, while manufacturing has continued to decline, and high-end business services have stagnated.<sup>6</sup>

Of course, jobs in less remunerative fields provide important employment opportunities, but they generally fail to provide a living wage, particularly given our high costs. If this pattern continues, it could perpetuate our excessively high level of near and abject poverty — nearly 30 percent, according to United Way — as well as overcrowding and, in the worst case, the growth of homelessness.<sup>7</sup> By some estimates, OC and Los Angeles have a higher poverty rate than the proverbially

## Percentage of Households Under United Way's "Real Cost Measure", 2013, by Household and Region

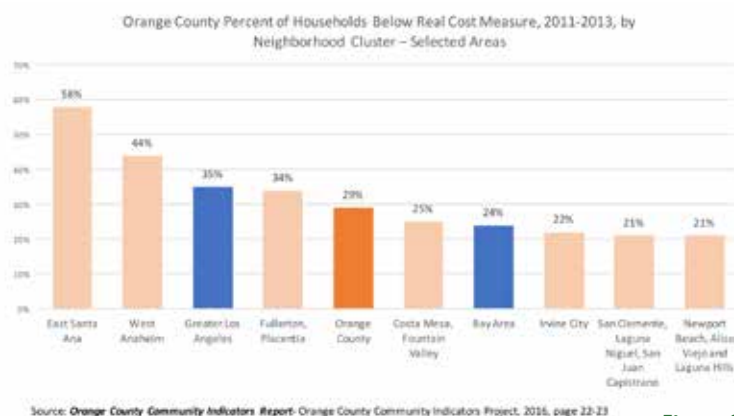


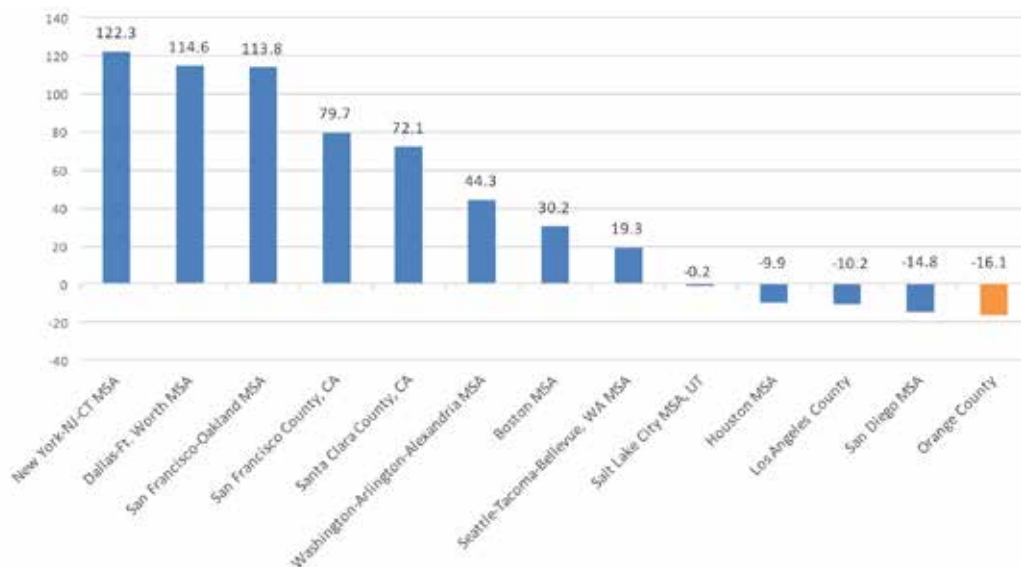
Figure 2

blue collar Inland Empire.<sup>8</sup> At least 775,000 of our fellow county citizens live in poverty.<sup>9</sup> (see Figure 2)

OC has not done as well at creating higher-paying jobs as Silicon Valley or New York, or as growth economies like Austin, Charlotte, Dallas and Salt Lake City.<sup>10</sup> Overall, it has lost more than 16,000 high wage jobs since 2007; in contrast, the Bay Area counties added more than 200,000. (see Figure 3)

Our best hope for future growth and overall economic and social sustainability

## HIGH WAGE JOB CREATION COMPARISONS, Selected Areas, 2007–2016



Source: Bureau of Labor Statistics, Census, full years 2007 and 2016. High Wage defined as \$70,000 and above for all geographic areas in 2007.

Figure 3

## PERCENT CHANGE IN STEM EMPLOYMENT Top 10 MSA's & Key Southern CA Counties: 2006–2016

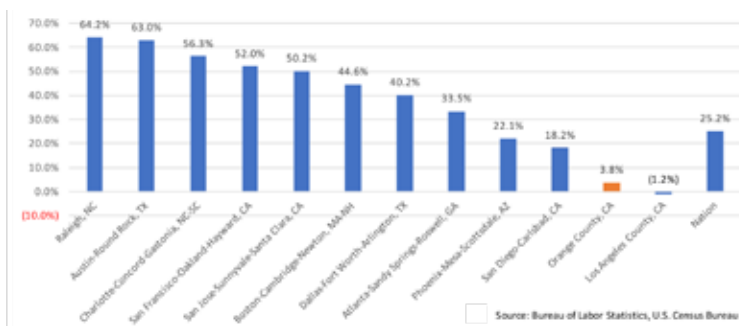


Figure 4

relies on what we define as Pro-Tech, that is, on bolstering high wage employment with the jobs that combine technology and business professional services and design. Together, these are the largest high-wage growth sectors in the country. Growth and maintenance of high wage jobs remains the defining factor in regional economies.

In the past, we thought of tech and professional services as distinctly different, but they are increasingly linked. We can see this in the fastest growth areas for tech — for example, San Francisco, Silicon Valley, Seattle, Dallas and Austin — which are increasingly also those that have seen the biggest growth in professional services. The emergence of companies such as Amazon, Uber, Lyft, and Salesforce.com suggests that these functions are merging. Even prototypical

tech firms such as Google, Apple and Microsoft are increasingly focused on what were once seen as services: movies, television and, above all, advertising. Cloud services, Apple Pay, and the App Store now drive Apple's growth; services, rather than products.<sup>11</sup> A surge in Pro-Tech jobs would play to OC's natural ability to transcend traditional barriers across a broad array of industries. These professional jobs are growing faster nationally than information jobs, which have dropped in the past decade, and are projected to experience little growth in the coming decade.<sup>12</sup>

## ASSESSING OUR CURRENT STRENGTHS IN PRO-TECH, AND INTRODUCING "LIFE-TECH"

No region can be strong in every aspect of a field, particularly fields as tightly contested as tech and professional services. Overall, Orange County's tech sector is among the most varied in the nation, even as its growth has been well below that of our competitors.<sup>13</sup> Earlier in this decade, the Bay Area created 150,000 new STEM jobs, while OC created less than 4000. Our close neighbor San Diego created roughly twice as many of these positions as OC, as did less established competitors like Salt Lake City, Indianapolis and even Kansas City. (see Figure 4)

The most recent STEM numbers, for 2017, are slightly better, although below the national average, and OC sometimes lags competitors by wide margins: it is behind the Bay Area metropolitan areas, which have begun to slow, as well as Atlanta, Dallas-Ft. Worth, and Phoenix, where total STEM jobs increased anywhere by anywhere from 10 to 40 percent, compared to OC's less than 4 percent.

The good news is that OC retains a

## RELATIVE DENSITY OF EMPLOYMENT IN PRO-TECH, Orange County and other Major Metro Areas: 2016

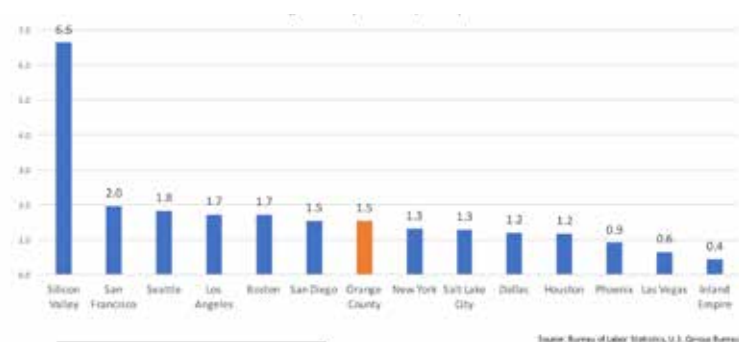


Figure 5

stronger position in the combination of tech and business services than many of its rivals. This is despite the fact that growth in both sectors is slow compared to our key competitors. Nonetheless, overall, the county's Pro-Tech LQ — its location quotient, that is, its relative density per capita compared to rest of the nation — is seventh in the US; on a par with San Diego, and slightly behind Los Angeles, but well above the national average. (see Figure 5)

This is a strength we should seek to expand. Orange County ranked #33 on the Forbes list of year-over-year growth (2015-2016) in Business and Professional Services employment, with growth of only 2.2 percent, half the rate of the top 25 markets. Los Angeles grew at half of OC's rate, 1.1%, with a rank of #48 on the list.<sup>14</sup> (see Figure 6)

Pro-Tech jobs pay an average of \$92,000 annually, well above our county's average wage of \$69,992. So, maintaining and bolstering them is critical to the area's ability to generate the high wage employment that's necessary to handle our high costs. (see Figure 7)

In the battle for Pro-Tech jobs, OC retains some strategic advantages. Along with our high education levels, the county's great advantage lies in the diversity and skills of our people. (see Figure 8) The unique aspect of our economy is the conjunction of tech with the arts, entertainment and design. When we include these fields — what might be called "Life-Tech" — our relative strengths become obvious. Virtually no major region we examined was above the national average in all of these categories.

New York, for example, flourishes in business services, finance, and the arts, but not tech. Los Angeles dominates entertainment and the arts, but is only middling in professional services and barely above average in tech. The Bay

## PROFESSIONAL & BUSINESS SERVICE JOBS Selected Counties and Metropolitan Areas, 2015–2016

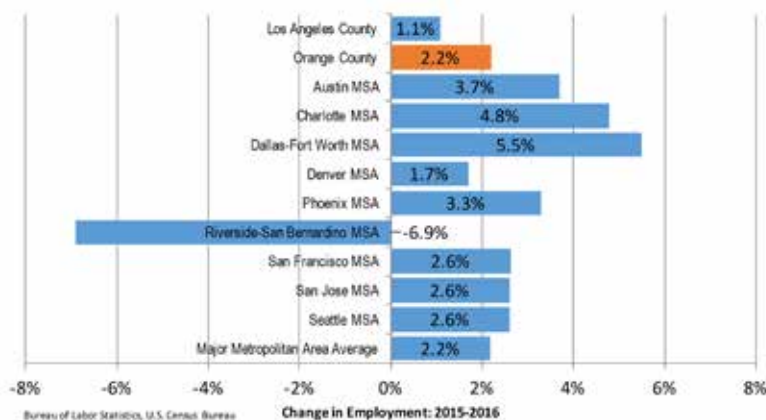


Figure 6

## AVERAGE PAY FOR ORANGE COUNTY Selected Pro-Tech Jobs 2016



Figure 7

## RELATIVE DENSITY OF EMPLOYMENT IN ARTS & ENTERTAINMENT Orange County and other Major Metro Areas: 2016

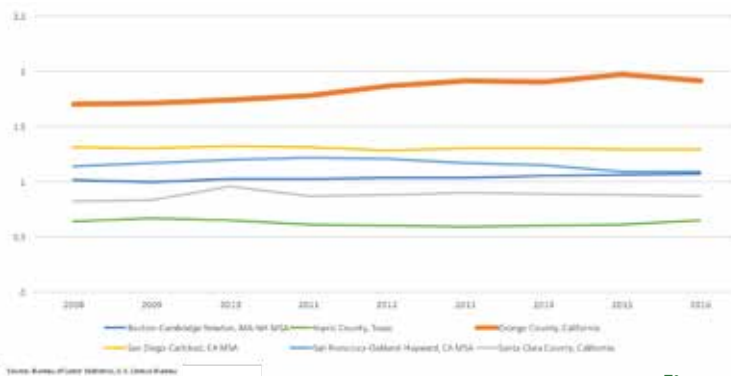


Figure 8

## THE CREATIVE ECONOMY DEFINED, and Key Statistics for Southern CA., 2015

2015 EMPLOYMENT	Los Angeles County	Orange County	LA/OC Region
Direct jobs	374,500	54,900	429,400
Direct creative industries workers as a share of all private wage and salary workers	10.1%	4.0%	8.4%
Total jobs - direct, indirect, and induced	665,800	93,100	759,000
Total creative industries workers as a share of all private wage and salary workers	18.0%	6.8%	15.0%

2017 Otis Report on the Creative Economy of the Los Angeles Region [www.otis.edu/otisreport](http://www.otis.edu/otisreport)

Figure 9



Area leads in tech and remains strong in business services, but its creative core in arts and entertainment share of employment has shrunk. The Bay Area also lacks anything like OC's vibrant lifestyle fashion scene that includes high-end firms like St. John's Knits, Oakley, Hurley, Mossimo, and Quicksilver. In some way, each of these companies market the OC lifestyle.<sup>15</sup>

Other promising specialties include mortgage finance, data and analytics, medical technology, video games, and product design. Creative industry employment in Orange County increased in two of the last three years, with a robust 5.3 percent gain in 2014 to 53,400 in 2014; employment is anticipated to reach 58,100 by 2019. These gains suggest the breadth of OC's creative industries, led by architecture and interior design, and ranging through fashion, furniture, decorative arts, and performing arts.<sup>16</sup> (see Figure 9)

The future of OC Pro-Tech is epitomized by companies which combine technology with media and fashion, such as the game company Blizzard and the action sportswear firm Sole Technologies.<sup>17</sup> "We need to live two lives, a tech one, and one that is balanced living outside," notes Pierre Senizergues, a Paris-raised former IBM engineer who founded Sole Technologies in 1989. "Orange County has the edge here over anyplace else."

## ASSESSING OUR GEOGRAPHY

Much of our research has focused on how regions can achieve a high degree of growth in better paying jobs. Some suggest that this means mimicking the approach of areas like Silicon Valley/San Francisco, the leader in the tech sector, or New York City, which dominates the high end of professional and business services.<sup>18</sup>

Some advocate the rapid expansion of rail transit, and a denser future that more approximates Manhattan.<sup>19</sup> Others have called for a "Silicon Valley South" that emulates the Venture Capital-led growth of the Bay Area.<sup>20</sup> These well-intentioned assertions tend to underestimate the historical forces that created each of these economic powerhouses and the strategic dominance these places have built.

Simply put, Orange County cannot follow the high-density transit model deployed in New York, a major city when our region consisted largely of ranchos on a remote semi-desert. OC, like its neighbor Los Angeles, has been and will likely remain a multi-polar region.<sup>21</sup> It is a county dependent largely on its road networks, with dispersed business centers that comprise thirty-four cities, each without a dominant downtown. Nor is it likely that the county will ever achieve the kind of global impact that characterizes New York's high-end finance and business service industries.

On the other hand, OC's form fits easily into a template seen in other successful economies. The conventional wisdom that dense urbanity will dominate the economic future really applies to only such places like Manhattan, San Francisco and a few 'legacy' core cities.<sup>22</sup> If dense urbanity was the key to success, central Los Angeles would be more successful in Pro-Tech than OC. Consultants suggest, for example, that San Diego has

some advantage over OC because it has a more traditional downtown, but most of San Diego's tech clusters are located in the suburban area to the north.<sup>23</sup>

Dense cities, with notable exceptions such as Manhattan, San Francisco and Washington DC, generally do not produce the greatest percentage of high wage (over \$75,000 annually) jobs. Our research shows that sixteen of the top twenty large counties with the highest percentage of high wage jobs are primarily suburban.<sup>24</sup>

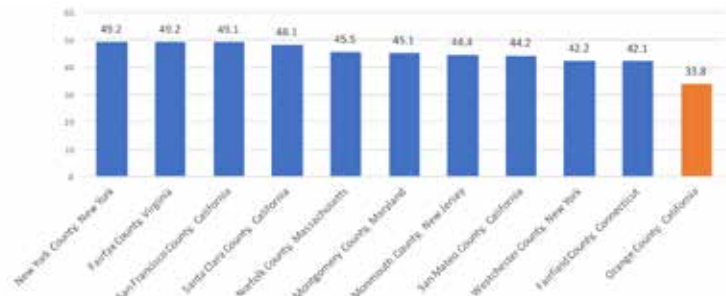
Similarly, (see Figure 10) all but a handful of the places with the highest percentage of households earning over \$200,000 annually are suburban. OC ranks 24th among all of these counties with over a million people, well ahead of all but a few of more urban counties, including Los Angeles. Similarly, the list of the ten wealthiest cities out of over 400 in the country are all suburban, with three OC communities — Newport Beach, Laguna Niguel and Yorba Linda — on the list.<sup>25</sup>

This suburban pattern is most notable in tech. The bulk of the nation's tech employment is taking place in dispersed, suburb-dominated environments such as Raleigh, Austin, Charlotte and of course Silicon Valley; San Francisco is the exception.<sup>26</sup> Nor are suburbs necessarily lacking in innovative potential. Urban theorist Richard Florida has found that suburbs generate the bulk of patents, for instance.<sup>27</sup>

## IS SILICON VALLEY DUPLICABLE?

Like Manhattan, Silicon Valley has unique roots, and has developed in a matter that is not duplicable. Its ascendancy has been growing for a generation, and its lead in tech jobs over both Orange Coun-

## PERCENT OF INDIVIDUALS EARNING \$75,000+, Ranked by County - 2016



Source: U.S. Census Bureau

Figure 10

ty and the rest of Southern California has expanded. Tech salaries have grown faster than those commanded by any of the large Southern California counties, and are considerably higher.<sup>28</sup>

The key element here may well be the Valley's enormous lead over all regions in terms of venture capital. Overall, the Valley and San Francisco together account for a majority of the country's venture funding. In contrast, OC and even all of Southern California remain a minor blip on the VC investment map, less than 10 percent of the Valley's share per capita.

According to Pitchbook, which tracks VC investments globally, OC venture deals reached a high of \$1.52 billion in 2015 but have trended down since then. In 2017, the total was under \$1 billion placed against 158 deals. While this sounds substantial, it represents a per-capita spending of under \$300 in a typical year for OC. Contrast that with San Francisco and Silicon Valley's \$5,001 and \$3,395 respectively, and it is clear that venture investing is less than a tenth as well-developed here. "There's not enough VCs, and the ones we have are too small," notes venture capitalist Rory Moore, founder of Evo-Nexus, based in La Jolla. "To get a jump-start we have enough, but not enough to get us to heaven. The big wealth here doesn't go into tech, it goes into real estate."<sup>29</sup> (see Figure 11)

## NUMBER AND VALUE OF VENTURE CAPITAL DEALS IN ORANGE COUNTY, 1999–2017



Figure 11

The impact of venture funding, which attracts capital from around the world, has created a virtually unassailable structural advantage, particularly for large companies. OC, or for that matter, the entire Southland has nothing that remotely compares to Google, Facebook or Apple, three of the world's most valued companies. Overall, the county is home to only three large tech public companies, compared to more than seven times as many in Silicon Valley, including leaders like Apple and Facebook, not to mention Alphabet, Intel, and Hewlett Packard.<sup>30</sup>

Orange County seems unlikely to create anything like this clustering of tech megafirms. To be sure, the area has a proud history of tech success back to the late 1950s, but the ranks of large, locally run firms — including Western Digital, Broadcom and Ingram Micro — has dissipated, with some headquarter functions moving to Northern California.<sup>31</sup>

“We are losing all our big companies and can’t take advantage,” observes Glen Chishelm, founder and CEO of Newport Beach-based Obsidian Security, a software start up. “When a Broadcom exits, we should have started dozens of new companies. Our people don’t pivot like they do in the valley.”<sup>32</sup>

Of course, many Valley firms and other tech companies invest in OC by locating satellite offices here. But these companies are investing more heavily elsewhere.<sup>33</sup> Apple has over 6,000 people in less-costly Austin, including a hardware engineering division.<sup>34</sup> Apple offers very few opportunities in southern California, but ten times as many in Texas.<sup>35</sup> Rapidly expanding Amazon is hiring at job fairs and facilities largely outside of California.<sup>36</sup> Google has been expanded most robustly in Colorado, Austin and downtown San Jose.<sup>37</sup>

Rather than try to emulate the Silicon Valley model, we should recognize its emerging limitations and take advantage of the Valley’s weaknesses. Former Chapman University president and economist Jim Doti and others have demonstrated that Valley tech growth, in recent months, has slowed dramatically.<sup>38</sup> Much of this has been traced to extremely high housing prices, something that has led 74 percent of Valley millennials to consider a move out of the area in the next five years.<sup>39</sup> Indeed, the Bay Area has seen a considerable drop in domestic migration despite the boom conditions, (see Figure 12) a sure sign that the region is losing its sustainable appeal despite higher than average incomes. The latest information

now suggests that area job growth may have even turned negative, including in the critical tech sector.<sup>40</sup>

Critically, the concentration of dominant tech firms has begun to choke the once vibrant pipeline of small startups. Gradually, the image of spunky, enlightened entrepreneurs has morphed into one of monopolists reigning over what is rapidly becoming the most consolidated of our major industries.<sup>41</sup> These ‘super platforms’ tend to squash potential competitors.<sup>42</sup> No one really expects competition to rise against venture capital-created firms like Google, which owns upwards of 80 percent of global search. Facebook uses its power to undermine upstarts like Southern California’s big Internet hope, Snap.<sup>43</sup> Even Sergei Brin, a co-founder of Google, recently suggested that startups would be better off launching somewhere else.<sup>44</sup>

## A PRO-TECH ECONOMIC STRATEGY WITH OC CHARACTERISTICS

Orange County’s future will be determined by companies and individuals deeply rooted in the area and dependent

## ANNUAL NET DOMESTIC MIGRATION: 2000–2016 San Francisco & San Jose Metropolitan Areas

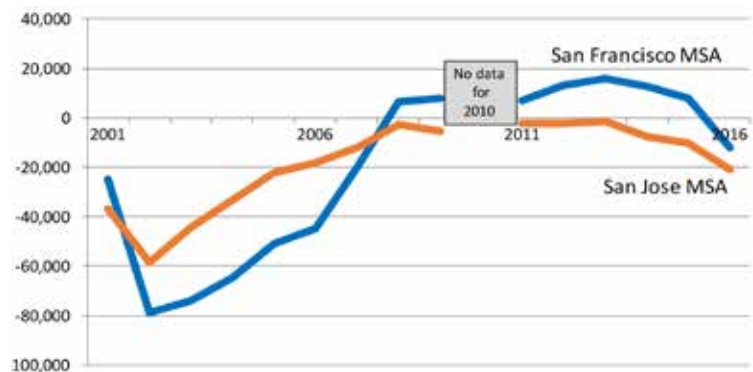


Figure 12

on its unique workforce. These include a vital nexus of very large, focused companies. Some of these, in fields like high-tech manufacturing, medical device creation, and military technology, have had a strong, long-lasting local presence, and provide collective expertise. OC remains powerful in manufacturing, with roughly 150,000 jobs.<sup>45</sup> (see Figure 13)

History is important for an understanding of the county’s growth in these fields. Aerospace was critical during the early evolution of the economy in the 1960s and 1970s. Medical devices, arguably OC’s strongest pro-tech area, also enjoys a storied past.<sup>46</sup> Urban analyst Enrico Moretti suggests that thick labor markets in specialized fields, particularly in high

## RANKING OF TOP 10 MANUFACTURING EMPLOYMENT BY COUNTY, United States: 2016

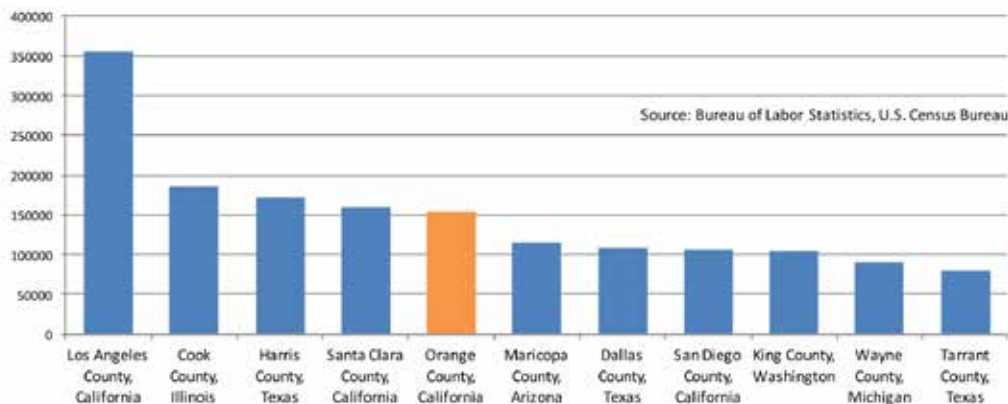


Figure 13

## ORANGE COUNTY SELECTED INDUSTRIES

With Employment Densities Greater than Triple the National Average

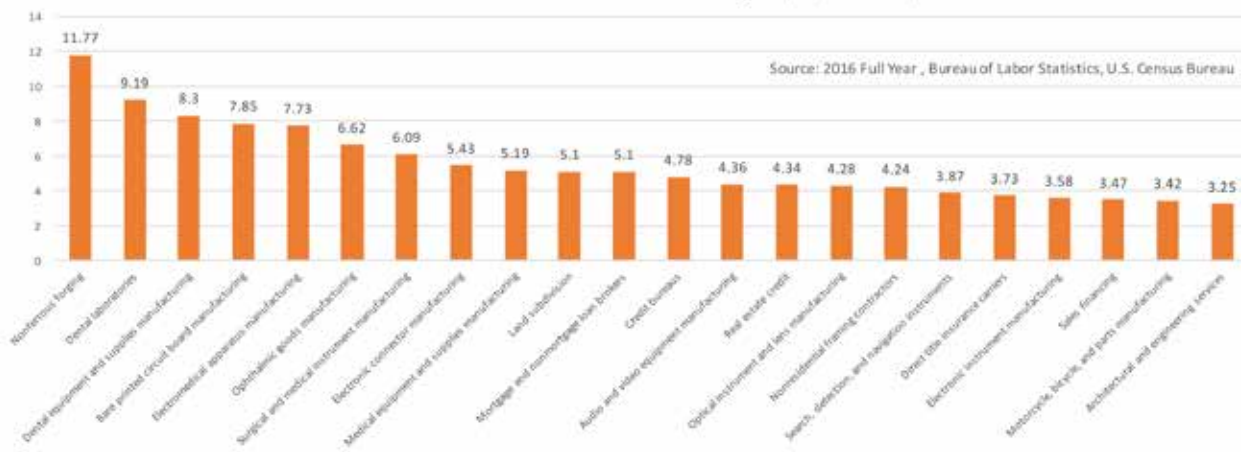


Figure 14

cost areas, are critical: “For innovation, a company’s success depends on more than just the quality of its workers — it also depends on the surrounding ecosystem.”<sup>47</sup> (see Figure 14)

Our increasingly diverse population offers another critical source of opportunity. Even as immigration from Mexico slows, Orange County continues to attract a growing number of newcomers and firms from other countries, including the Middle East and Asia. Fully one-third of all OC residents are foreign born, three times the percentage in 1980.<sup>48</sup>

## FOREIGN BORN POPULATION: 1980 VERSUS 2015

U.S., California, Los Angeles & Orange County

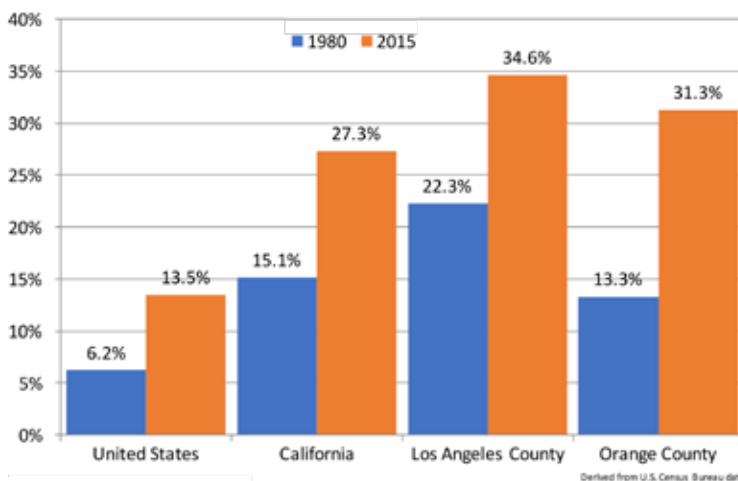


Figure 15

(see Figure 15)

The Eco-system of these immigrant and minority owned firms constitutes a growing part of our economy. The decision of the Chinese real estate giant, Landsea, to locate its US headquarters in Irvine follows earlier decisions by firms such as Hyundai, Mazda and Kia to put their US headquarters here.<sup>49</sup> The Asian connection has also meant a growing takeover of locally owned businesses by cash-rich firms from China, Japan, Taiwan and Singapore. In 2016 alone several large local entities — Ingram Micro, Broadcom, Vizio, Kurion — were purchased by companies based in Asia.<sup>50</sup>

Since the 1980s, locally owned immigrant-driven firms have played a critical role in our high-tech economy and remain critical to our long term success.<sup>51</sup> This follows national trends, where start up rates have been falling in the native born population; immigrants, the Kaufmann Foundation has found, are twice as likely as natives to start a business.<sup>52</sup> Foreign born women also more likely to start an enterprise than their native born counterparts.<sup>53</sup> (see Figure 16)

A case in point is Fountain Valley-based Kingston Technologies. Founded by two Taiwanese immigrants, by

## RATE OF U.S. ENTREPRENEURSHIP BY BIRTHPLACE

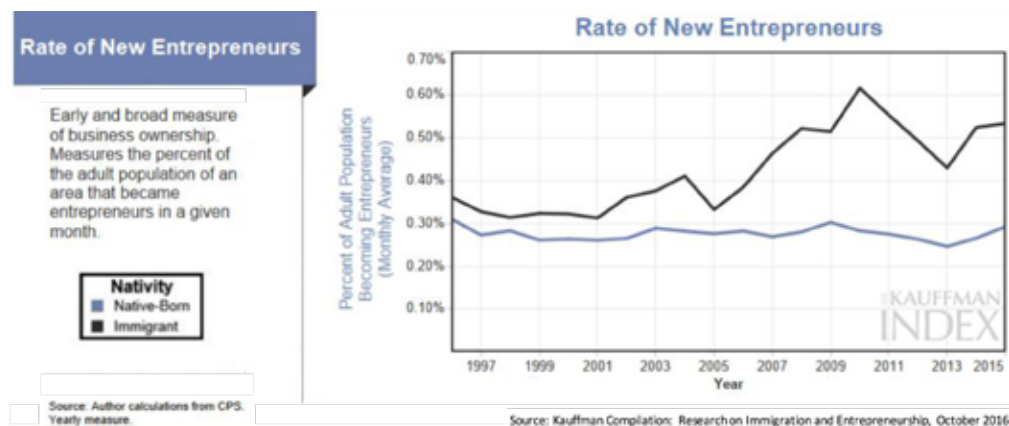


Figure 16

2013 it enjoyed sales of over \$5.5 billion, making it the 69th largest privately held firm in the country.<sup>54</sup> Immigrant entrepreneurial skill meshed with a strong, work-related immigrant ethos. “The area benefited from the labor availability, a lot of Vietnamese who had no marketable skills but wanted to work hard... For us, they made the difference, notes company co-founder John Tu.”<sup>55</sup>

Given the pattern of acquisitions, our future economy will have to depend on such homegrown firms. Some may become large, but the clear majority will remain small. These will include those that operate as sole proprietorships. OC’s high wage employment is increasingly found in smaller companies, led by biomedical and computer software firms.<sup>56</sup> Many of the industries that have thrived and have the greatest potential for future growth, like video games and virtual reality, are led by startups such as Newport-based Next VR.<sup>57</sup> These firms often rely on a small core of staff employees and a robust network of local, small or even individual contractors.<sup>58</sup>

Such highly specialized micro-businesses, including in manufacturing, have expanded both nationally and in OC over the past decade.<sup>59</sup> The average size of an OC business has declined for well over a decade. Employment per establishment

fell by 8.1 percent during 2003 to 2015, from 17 workers per establishment in 2003 to 15.6 workers per establishment in 2015, notes a California State University Fullerton report.<sup>60</sup> (see Figure 17)

Some of the strongest growth has been in Pro-Tech industries; since 2003, professional and scientific services have grown almost 2 percent, to over 16 percent of all county establishments, while the arts share surged 30 percent.<sup>61</sup> Self-employment has also grown quickly in arts and entertainment, up 13 percent between 2008 and 2013; it now includes more than 2800 firms, with sales approaching \$1 billion.<sup>62</sup> OC has a high percentage of households with self-employment income at 15.23 percent, compared to the national average in similarly-sized counties of 10.78 percent. (see Figure 18)

## TOTAL EMPLOYEES PER ESTABLISHMENT, Orange County and United States, changes from 2007–2016

Area	2007 Employees Per Establishment	2016 Employees Per Establishment
LA–Long Beach–Anaheim MSA	10.22	9.09
Orange County	14.55	12.55
San Diego County	12.14	11.33
SF–Oakland–Hayward MSA	11.38	10.77
San Jose–Santa Clara MSA	14.57	13.91
California – Statewide	10.48	9.95
Total United States	14.54	13.91

Source: Bureau of Labor Statistics, U.S. Census Bureau. Data for private establishments, does not include government employees

Figure 17

## SELF-EMPLOYMENT RATE

### For Orange County and Selected Counties, 2016

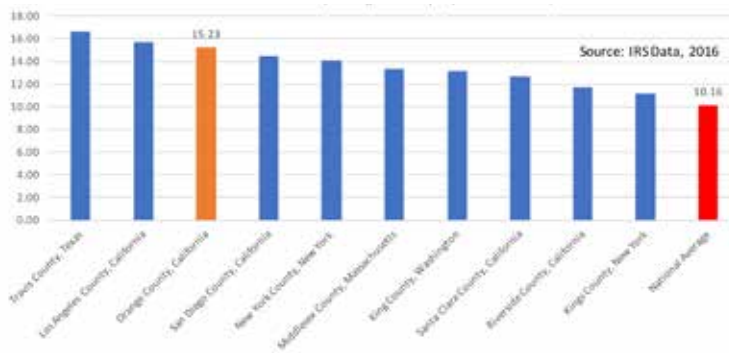


Figure 18

These changes are in part driven by the rising number of people working at home, now the fastest growing commuter trend in the US workforce.<sup>63</sup> Under-the-radar enterprises may well contain the seeds for OC's revitalization in the years ahead. Some cities, such as Garden Grove, are already promoting 'cottage industries,' many of them based inside homes, to fuel economic growth.<sup>64</sup> Other areas, such as Costa Mesa and Irvine, are developing co-share spaces to incubate such fledgling companies.<sup>65</sup> (see Figure 19)

In an economy dependent on high skill industries and entrepreneurship, the

key opportunities are rooted in our concept of Life-Tech, a qualitative advantage that can lure talent to the county and retain it. Orange County still has the requisite tech talent base, ranking 14th out of 50 large regions.<sup>66</sup> "The quality of life component is critical — weather, schools, safety, a relative lack of traffic," suggests Jeff Erle, CEO of Mobility Ware, a game firm that employs 175 people in Irvine. "Those are the best tools we have for the future."<sup>67</sup>

These positive lifestyle characteristics, long associated with dense cities, are increasingly prevalent in 'metroburbs' like OC. These suburban areas provide some urban amenities like walkable retail districts, an arts presence, and varied food choices. They appear increasingly attractive to millennials, some of whom will participate in the growing 'gig' economy, contracting out their services.<sup>68</sup>

Rather than creating new company towns, such as those that Facebook and others have tried to develop, OC may instead provide young people and emerging companies with congenial environments. "They still want the look of the latest and greatest company," notes one architect. "But, ultimately, they want to do their own thing and be their own boss."<sup>69</sup>

## CHANGE IN METHOD OF COMMUTING

### United States: 1990–2016

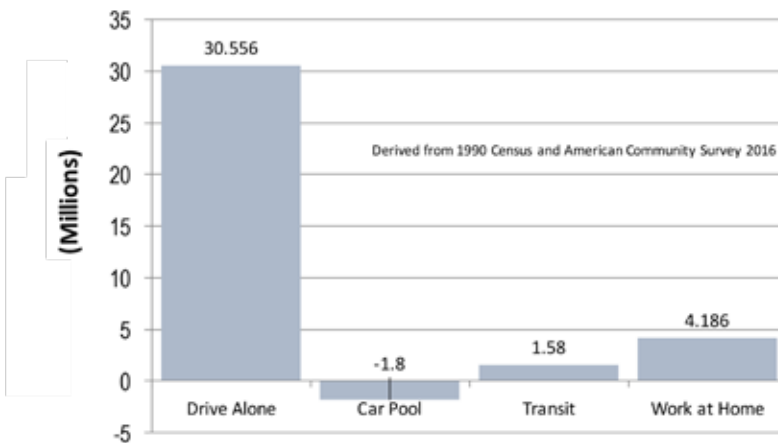


Figure 19

## SECTION THREE: OC FOCUS ON THE TALENT IMPERATIVE

To determine Orange County's fate as a Pro-Tech center, we need to identify our region's primary assets, and assess how to develop their full potential. In addition to tech talent, OC retains a population of skilled engineers and scientists at a level that is well above most of its major competitors, and not far below that of the San Jose and Seattle areas.<sup>70</sup> (see Figure 20)

“We have a strong scientific community — aerospace, for example — that’s deeply rooted in engineering. This presence is still strong,” suggests Christina McCauley, who works in human resources at Edwards Life Sciences’ 4,500-strong OC operations.

Maintaining and expanding this talent base represents a key imperative for the county, as it would for any economy that requires high levels of compensation and labor productivity.<sup>71</sup> A study by Area Development magazine ranked access to skilled labor as the most important factor in a company’s location decision. It represents a staple for competition in the global marketplace.<sup>72</sup>

## OUR PRIMARY ASSET: QUALITY OF LIFE

So how does Orange County compete in this marketplace of skills? Clearly, it does not possess the magnetic appeal of specific industry areas such as finance and media in New York, or large technology firms in the Bay Area. Our strengths are instead diffused, derived from our

family-friendly, human-scale, Life-Tech assets such as good schools, ample open space, beaches, convenient transportation, and a plethora of quality small city environments.<sup>73</sup>

“Silicon Valley is not such a great place to live,” notes Obsidian Security’s Glen Chishelm. “My recruiting strategy is to take them to Laguna Beach and keep them there. This is a magnificent place to live.”<sup>74</sup>

Chishelm’s assertion challenges much of the discussion on how to attract skilled workers, which often focuses on the supposed magnetic appeal of dense urban cores. Yet rather than assume what people want, for this report we chose to do something unusual: we asked professionals themselves.

The Center for Demographics and Policy at Chapman University developed a national survey, fielded and tabulated by The Cicero Group, of 1,191 professionals: people aged 25-64 with household incomes greater than \$80,000. The participants all work in key Pro-Tech industries: education, healthcare, information technology, finance or other professional services jobs. We asked respondents to rate

## OVER 25 WITH ADVANCED OR PROFESSIONAL DEGREE: 2015 Orange County and Selected MSAs

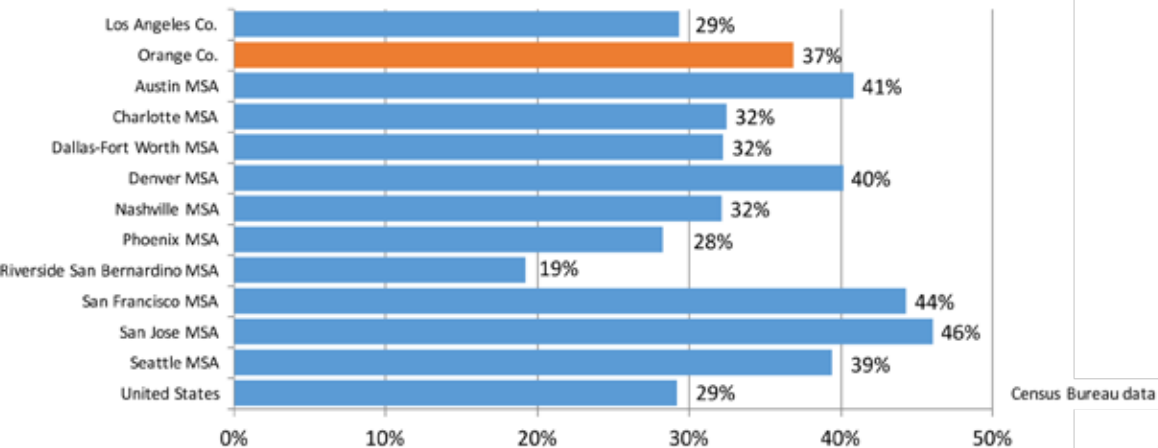


Figure 20

## IMPORTANCE OF GENERAL, NON-WORK CRITERIA For Relocation Among Professionals, Nationally.

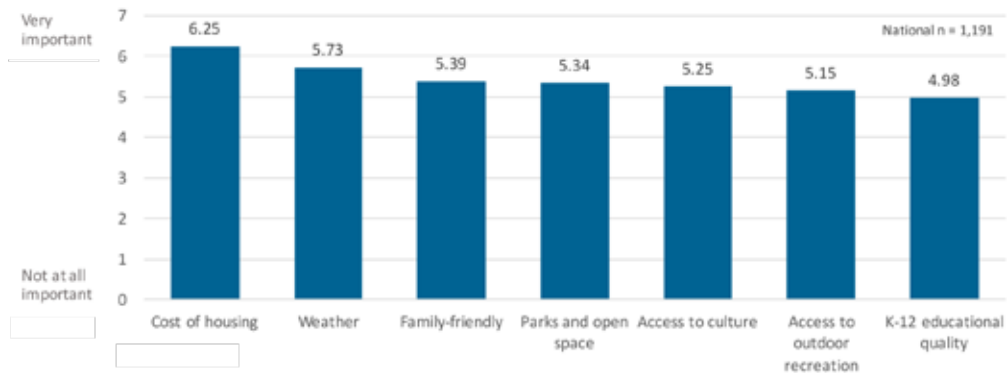


Figure 21

which life factors are the most important determinants in where they would want to move, assuming an attractive job opportunity presented itself. While there were some differences between industries, the variances were relatively small, in most cases.

The results turned out to be more focused on family and lifestyle issues, and less so on cultural amenities, as important as they might be. These professionals may not want to live in a cultural wasteland, but they prioritize outdoor activities, a lack of crowding, and an affordable house. The chart below summarizes general factors outside of work that impact relocation decisions. (see Figure 21)

Housing costs, an issue we will return to, is clearly the most important factor. Weather ranks second. Parks and open spaces, access to culture, outdoor recreation and population size are clustered together as the next most important factors.

Looking at other variables we see clearly that many professionals would choose to live in a place that offers a balanced lifestyle. People want an area to be of sufficient size to offer interesting cultural alternatives, nightlife and restaurant options. However, they shy away from crowding, major traffic problems,

and long commute times. And they want to be able to relax in what they see as a non-frenetic area with outdoor recreation, parks and open spaces.

Professionals we surveyed are clearly family-oriented. They rank “family-friendliness,” proximity to family and friends, and, most importantly, K-12 educational quality at the top. This is something that distinguishes many OC districts from the generally dismal California norms. (see Figure 22) OC schools, for example, boast the highest graduation rates of any large county in the state, and outpace California test scores, particularly in math, by a wide margin.<sup>75</sup>

Turning to work-related criteria, we see that short commute times and good job opportunities for spouses rank as highly important. As with housing costs, the absence of these two criteria are a ‘deal killer.’ Tax levels, a negative for OC and all of California, are also of high importance to professionals, but strong business networks are almost as highly valued. This is truer for people in IT, finance and other professional services areas than it is for education and health-care professionals.

## RANKING ORANGE COUNTY

So, given these criteria and deal killers, how do different metro areas stack up against each other as magnets for talent? We gave professionals a choice of 25 metro areas to choose from. Using census data, we selected areas where the highest concentrations of professional jobs were located in the past decade.

Professionals identify San Diego as the most attractive metro in the country. That may seem counter-intuitive, given the high actual cost of real estate there and the high tax levels in California in general. However, professionals do not appear to perceive San Diego as being among the highest cost places to live nationwide: they view that distinction as falling to San Jose, San Francisco and New York (tied for second).<sup>76</sup> San Diego appears to have done a far better job of marketing itself than OC, and is generally out-performing the region, particularly in STEM jobs. (see Figure 23)

Denver, Charlotte, Seattle, Austin and Raleigh are next in terms of perceived attractiveness overall. OC ranks much higher than its northern neighbor, Los Angeles. Critically, no region stands

## CALIFORNIA EDUCATIONAL PERFORMANCE, K-12; CAASPP Math Test Achievement for Selected Counties & State, 2016–2017

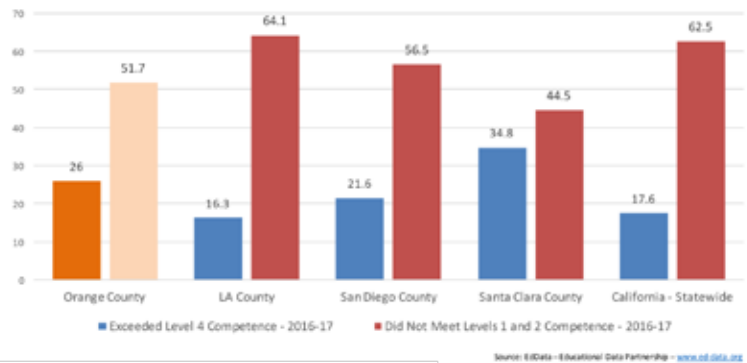


Figure 22

out as the ‘beauty contest winner’ of regions. The highest scoring metro, San Diego, received a 4.3 out of 7 score in attractiveness, indicating that there is no ‘perfect’ in the minds of professionals. But certain factors are ‘must haves,’ such as affordable housing, job opportunities for spouses, and reasonable commute times.

## RATING OF OC AND OTHER METROS Among Resident and Non-Resident Professionals

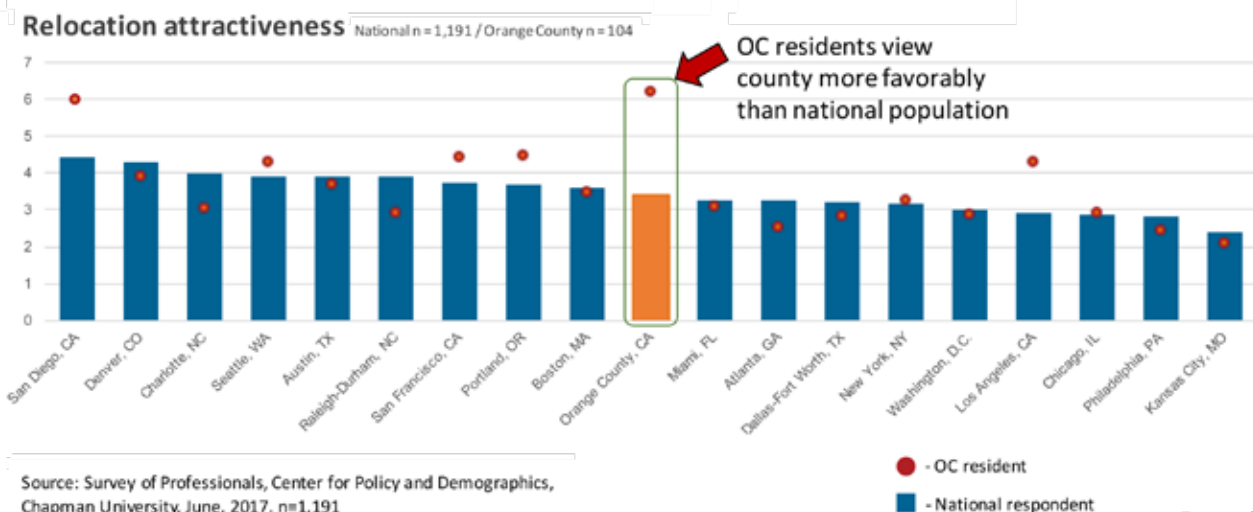


Figure 23

## NATIONAL PERCEPTIONS OF ORANGE COUNTY PROFESSIONALS, 2017

Percent strongly agreeing attribute describes Orange County

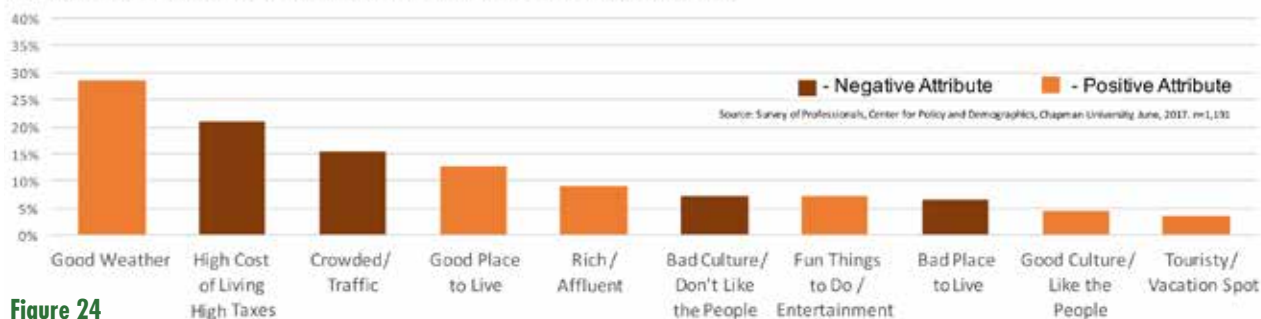


Figure 24

### OC: FAMILY FRIENDLINESS IS KEY ASSET

Rather than obsess over trendy hipsters, regions seeking to lure professionals need, more than anything, to focus on the basics that shape quality of life for families. These advantages are, to a large extent, more obvious to residents than to outsiders — clearly a reflection of the region's persistent inability to market itself. Too many people regard OC as little more than a southerly suburb of Los Angeles. The idea that this is an exciting, largely self-contained region tends to get short shrift in the media. Because government census and employment statistics list OC as a subset of the overall LA-Long

Beach-Anaheim metropolitan statistical area (MSA), many analysts routinely overlook it as a separate area.

### THE GOOD NEWS: AS A PRODUCT, IT IS WIDELY APPRECIATED BY THOSE WHO KNOW IT BEST.

OC's great appeal, outside of the weather, is its family-friendliness. (see Figure 24) As demographer Wendell Cox has shown, it does particularly well in its percentage of households with related children under 18. In this respect, the county retains what has been lost in other high-cost regions such as New York, San Francisco and Boston. Only 8 of the nation's 53 metropolitan areas with populations of more than 1,000,000 have a greater percentage of households with related children; (see Figure 25) most of these are fast-growing cities in the Sunbelt and Inter-mountain West.

### HOUSEHOLDS WITH RELATED CHILDREN UNDER 18, Orange County and Selected Areas, 2016

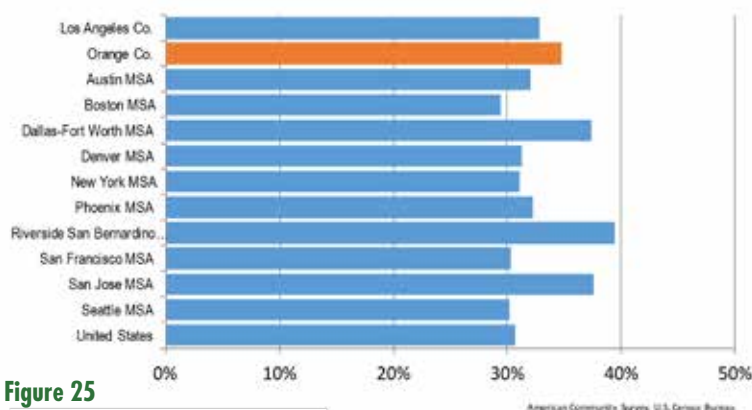


Figure 25

## OUR BIGGEST CHALLENGE: HIGH HOUSING COSTS CHASING AWAY PROFESSIONALS

In the past, Orange County's great assets were more than enough to attract professionals from around the world. But increasingly, high housing prices have reached levels that well outstrip the ability of many — particularly younger people and minorities — to buy homes.

In our survey, 37 percent of professionals say they would eliminate an area from consideration because of its high housing costs. This clearly impacts OC's migration, as numerous executives have suggested. "A lot of young people like to go to Silicon Valley, LA, Chicago or New York in their 20s, but when people get into their 30s they look for a place like Orange County," notes Nick Steelman, COO for Auto Gravity, a fast growing fintech start up based in Irvine. "The big problem is they can't always afford it."

This is a national trend. As housing prices have risen and competition between regions has intensified, high cost areas generally are suffering from weak or negative domestic migration. The effects

on migration of a rising median multiple — a calculation of affordability determined by the median house price divided by pre-tax annual median household income — can be seen in the graph on migration trends. (see Figure 26)

There is considerable debate about the importance of OC's high housing prices. Pleasant weather is a major plus in attracting talent and getting it to accept higher prices.<sup>77</sup> OC's lifestyle may be worth the price, but the impact of high housing prices differs dramatically by generation. OC housing costs are high for everyone, but far less so for those who purchased in the past; those buyers may have experienced a considerable capital gain. For those long established here, the OC housing market is an enormous boon. But the impact of high housing prices results in greater numbers leaving the region and, perhaps more importantly, fewer coming in. (see Figure 27)

This is particularly true for those, often in their mid-30s, entering the market now. The costs of buying a house in OC are considerably higher — twice as high — as such destinations as Seattle or Denver; home prices are also much higher than in economically vibrant markets like Austin, Charlotte, Dallas-Fort Worth, Houston,

## HOUSING AFFORDABILITY FOR SELECTED METRO AREAS, Multiple of Median Household Income Required to Afford Median Priced Home, 2016

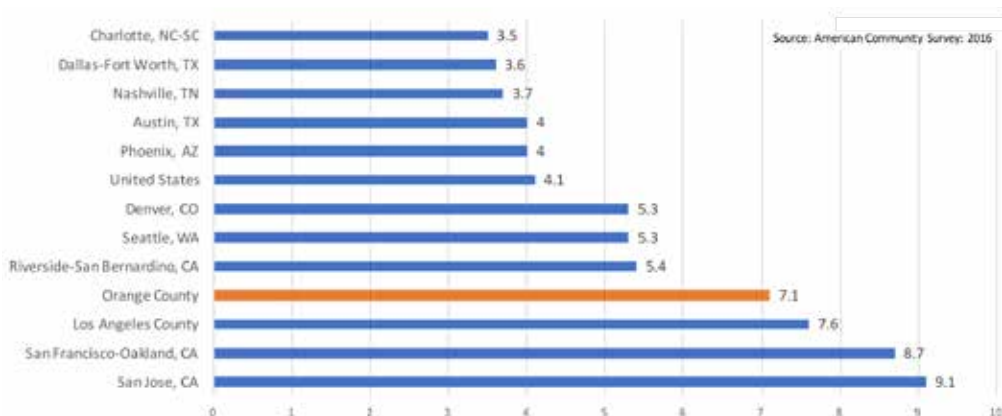


Figure 26

## IN-MIGRATION TRENDS FAVOR LOWER HOUSING COST AREAS, Net Domestic Migration Rate: 2010–2016

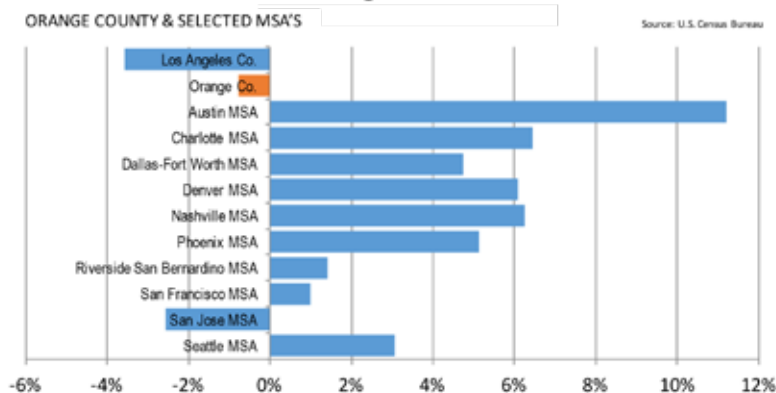


Figure 27

## POPULATION GROWTH: AGES 25 TO 54 Orange County and Selected Areas, 2000 – 2015

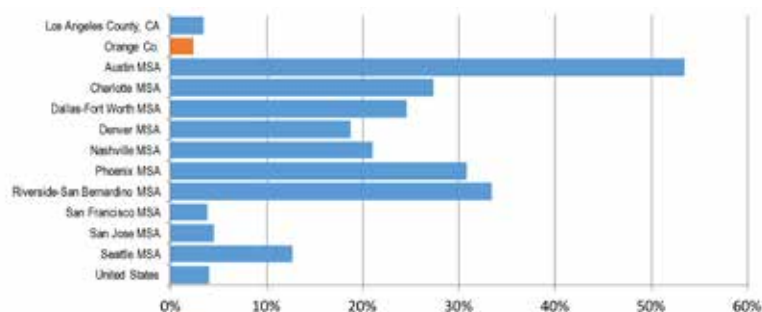


Figure 28

Phoenix, Raleigh, or San Antonio.<sup>78</sup> And they are increasing annually at a rate well above the rate of consumer inflation. The OC, San Jose, San Francisco, and other high cost places do poorly in the population growth of people between 25 to 54, compared to less expensive, but vibrant areas. (see Figure 28)

Even those younger and middle-aged people who buy here do so at some risk. A survey by the National Association of Homebuilders and Wells Fargo Bank, which used standards of fiscal “reasonability,” calculated that 87 percent of the houses sold in OC were not affordable, compared to 41 percent nationwide. Five years ago, 47 percent were within reach.<sup>79</sup>

## COUNTY MIGRATION TRENDS: OLDER AND MORE DIVERSE, WITH FEWER NEWCOMERS

Orange County’s population is aging more rapidly than that of the nation, or even the rest of coastal California. By far the biggest increase has come in the cohorts over 55, which suggests a large proportion of the population aging in place, but the trends are negative among the young through those in their late 30s.<sup>80</sup> (see Figure 29) This growing preponderance of older residents explains in part why our labor force continues to shrink, even in a time of very low unemployment.<sup>81</sup> By 2040, adults over 65 will account for an estimated 22 percent of our population, twice the percentage in 2000.<sup>82</sup>

For older residents and for people coming into the area with capital, OC exercises a very strong appeal.<sup>83</sup> The situation is reversed for younger cohorts. OC households with members under 35 have home ownership rates nearly one-third below the national average. Unless there is some change, we can expect the county to become one of California’s oldest by 2030. (see Figure 30)

One particularly worrisome trend is the declining number of families with children under 18, previously a longtime strength of this region. (see Figure 31) If the trend continues, Orange County employers could face an age-related economic crisis. “This is the business equivalent of a NORC [Naturally Occurring Retirement Community],” maintains Duncan Kane, Human Resources director for Toshiba America. “We have a lot of people working who have been there perhaps a little too long.”<sup>84</sup>

LPA, a leading OC-based architecture firm with 220 local employees, has

## ORANGE COUNTY POPULATION GROWTH BY AGE COHORT, 2010–2015

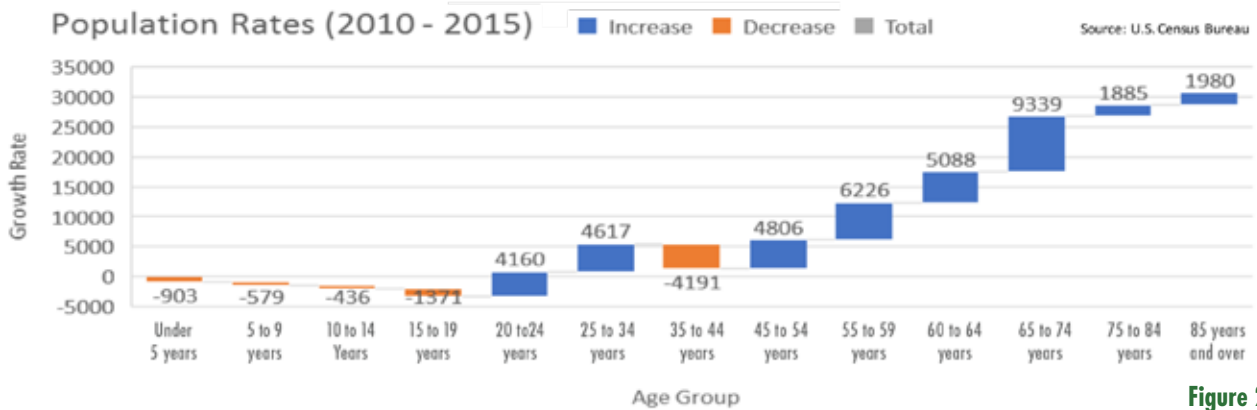


Figure 29

found a solution to its ‘thirty-something’ problem. The firm, says CEO Dan Heinfeld, has opened offices in more affordable Dallas-Fort Worth and San Antonio for their employees in that age group. They now have 75 employees in the Texas cities, soon to be 100. These employees work on OC projects remotely, as well as on local Texas projects. “We can get people right out of school, but it’s almost impossible to keep them in their 30s,” he explains. “When they want to start a family, that’s it.”<sup>85</sup>

This may well be a satisfactory solution for LPA, but it does not bode well for the future of OC’s talent pool.

## 2040 ESTIMATED HIGHEST RATIO OF OLDER TO YOUNGER PEOPLE IN CALIFORNIA

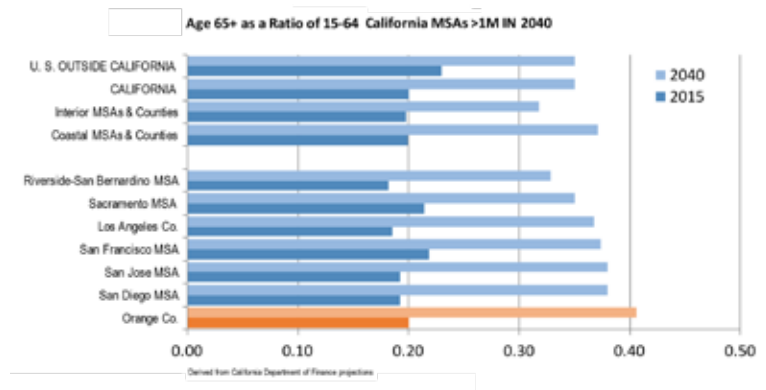


Figure 30

## PERCENT CHANGE IN HOUSEHOLDS WITH CHILDREN UNDER 18, 2016

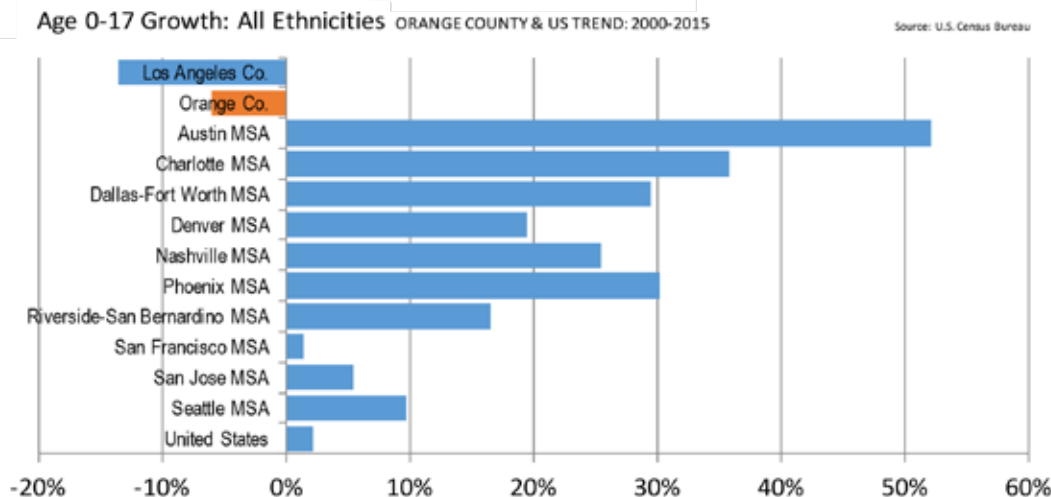


Figure 31

## SIDEBAR: OUR MOST THREATENED ASSET, YOUNG FAMILIES

To quantify the impact of high housing costs on the next generation of wealth-creators in Orange County, the Center for Demographics and Policy developed a statistical model of their out-migration. Researchers Anthony Lemus and M. Andre Cabrera conducted a correlation study to determine which key variables were driving the 35 to 44-year-old population. The table below summarizes the findings. Two variables, Median Home Price and Debt to Income Ratio, demonstrated strong statistical significance. Very few other factors came close to the impact of these two. (see Figure 32)

Based on the correlation analysis, our research team created a predictive model that projects OC's age 35 to 44 population through 2024. We predict that this cohort will continue to lose approximately 4,500 people every year if housing prices continue to grow at the current rate. Using a statistical modeling technique called "Monte Carlo Simulation," the team found that the median home price in the county needs to drop by approximately 20 percent from its current level to stem the tide of out-migration.

*...the median home price in the county  
needs to drop by approximately 20 percent  
from its current level to stem the tide...*

## SIMULATION OF OUT-MIGRATION OF 35–44 YEAR OLDS AS HOUSING PRICES INCREASE

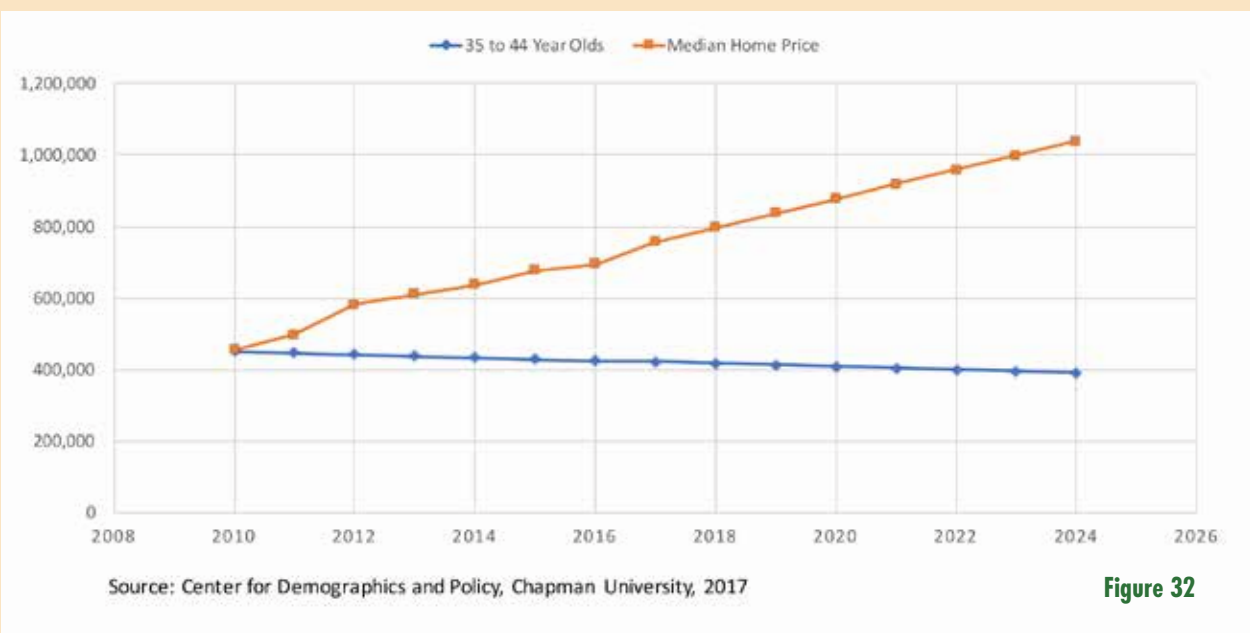


Figure 32

## MILLENNIAL CHALLENGE

The patterns for millennials — the nation’s largest generation — may be even more troubling. These workers are not as sensitive to housing prices as those who seek to buy a residence, yet they still do not seem to be flocking to Orange County. Instead, their numbers seem to be swelling most in the more suburban and polycentric, lower-cost but economically vital areas in the South and the Inter-mountain West. (see Figure 33)

This is decidedly not a reaction against the suburban lifestyle, as some, even in OC have asserted.<sup>86</sup> According to the highly respected website fivethirtyeight.com, the Census Bureau has found that considerably more Americans between the ages of 25 and 29 moved from cities to the suburbs than in the reverse direction in 2014. The movement from city to suburb has been considerably greater for millennials than for past generations.<sup>87</sup>

If movement to the suburbs has been slower among people in their mid to late 20s (compared to those in their 30s), it is not by choice; roughly two-thirds, according to a recent Wall Street Journal survey, still plan to move to a suburban environment.<sup>88</sup> This is true even within OC. Since 2000, for example, Irvine has seen a high growth in post-university millennials (those born from 1982 through 2003) aged 20 to 34. It indicates stronger residence growth for the age group than the urban core (downtown) of Los Angeles. (see Figure 34)

Irvine-based companies with compelling opportunities have had little trouble attracting millennials to OC. Frank Pearce, co-founder of Blizzard, for example, was able to attract 65 interns selected from 12,000 applications. “For a region to be successful it still comes down to: Is it a fun place to live and social

## GROWTH OF MILLENNIALS IN ORANGE COUNTY

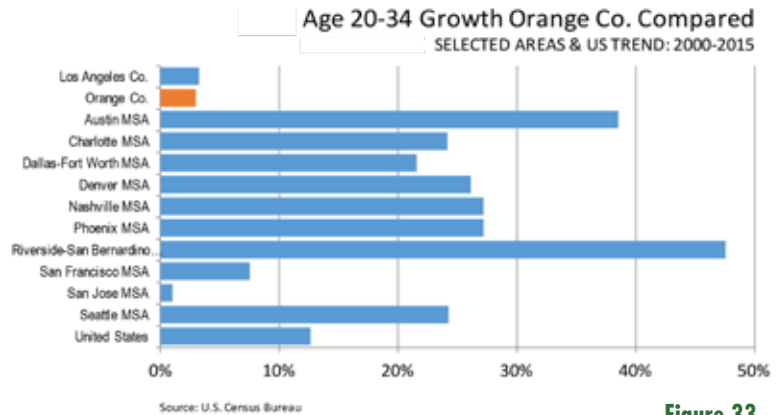


Figure 33

network for future jobs?” he notes. “This is more important than housing costs for young talent.”<sup>89</sup>

As experience in the tech community suggests, there’s a definite connection between the appeal of the equity-based culture of Silicon Valley and the culture of Orange County, particularly for young people. “There’s a recruiting problem,” suggests Lisa Rhee, Vice President of Human Resources for Vizio, a locally based tech firm. “There’s an idea that everyone who is 26 thinks they have to have an exit strategy.”<sup>90</sup>

Over time, OC’s family friendly environment could prove attractive to many millennials, particularly as they settle down and establish families. Some

## POST-COLLEGE MILLENNIAL AGE GROWTH

### Irvine Compared to Los Angeles Urban Core (Downtown)

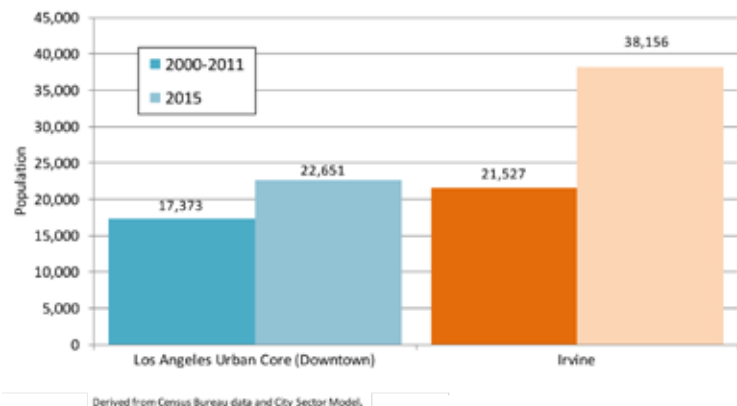


Figure 34

## THE PERCENT OF TOTAL UCI ALUMNI LIVING IN ORANGE COUNTY

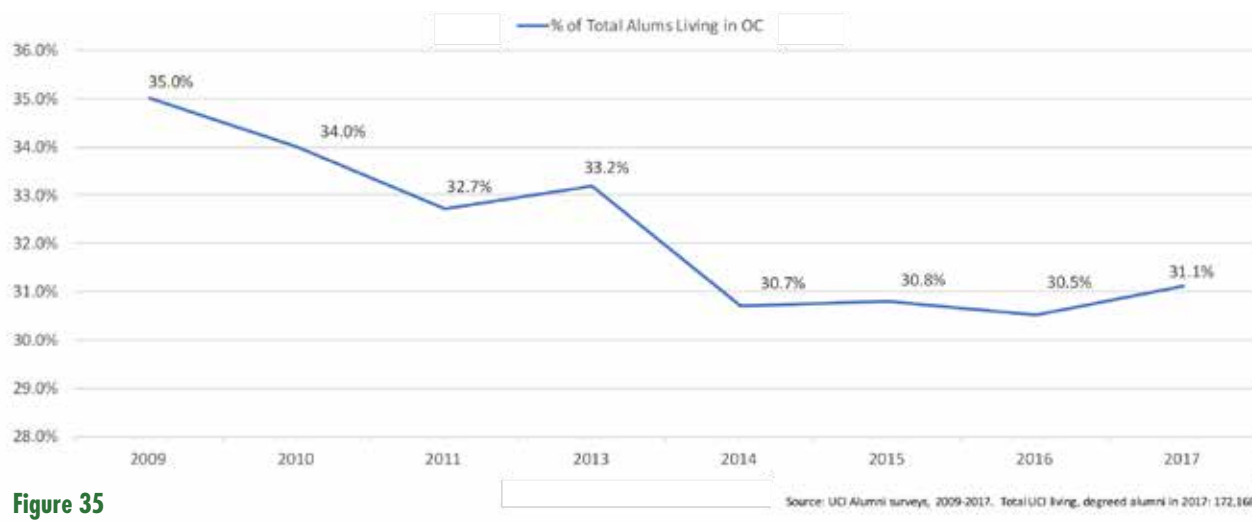


Figure 35

1.3 million millennial women gave birth for the first time in 2015, according to recently released data from the National Center for Health Statistics, raising the total number of US women in this generation who have become mothers to more than 16 million.<sup>91</sup>

But right now, OC seems to have trouble retaining these young professionals, as evidenced by the share of UC Irvine graduates who have left the county for other areas. This may reflect not just housing prices, but also lack of good career opportunities. “The problem for us

is the labor market,” suggests Ray Chan, Managing Director of K5, based in Irvine. “The top ten percent of UCI computer science students are poached by Google. There’s a huge gap between the best students and the opportunities companies here offer.”<sup>92</sup> (see Figure 35)

And the relative paucity of millennial migration to OC could worsen. The county’s job market, particularly at the high end, has shown signs of stagnation and even decline.<sup>93</sup>

## FOREIGN BORN ORANGE COUNTY POPULATION COMPARISON

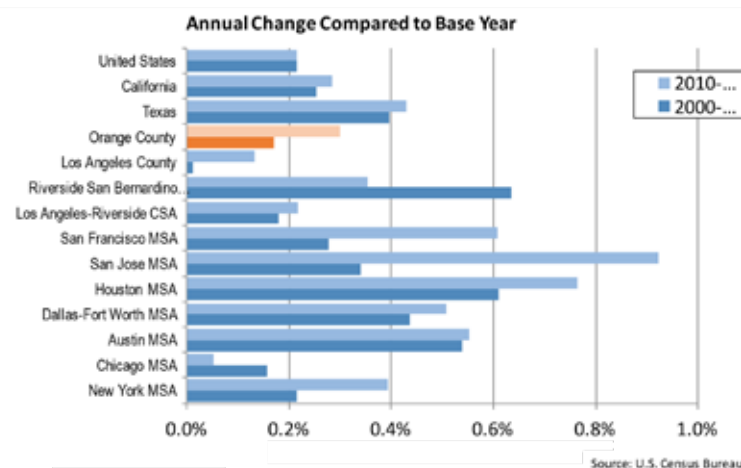


Figure 36

## THE INCREASING IMPORTANCE OF DIVERSITY

There is a bright spot in migration patterns: arrivals from abroad. Approximately 30 percent of OC’s residents are foreign born, which is 2.2 times the national average and 12 percent above the average for California.<sup>94</sup> (see Figure 36)

The rise of Asian immigration has been particularly marked in OC. This tracks with national trends which show that immigration of Asians has exceeded that of Latin Americans since 2010. Southeast Asians represent the largest share of our foreign-born residents. It

follows a national pattern of Asian immigrants seeking to settle in places that are largely suburban in nature and have good schools.<sup>95</sup> (see Figure 37)

Orange County and some other Southern California suburbs do not represent white enclaves. Rather, they are harbingers of the future outside the urban core. By 2035, the OC population, now 34 percent Hispanic and 19 percent Asian, will be ‘majority minority,’ with these two groups accounting for 60 percent of the population. By that time Irvine, the economic powerhouse of the county, will be a majority Asian and barely 27 percent Anglo.<sup>96</sup>

Geographer Ali Modarres notes that the immigrant-rich OC, the San Gabriel Valley, the Inland Empire and their analogues elsewhere now represent “the quintessential urban form” for the twenty-first century.<sup>97</sup>

Certainly, the skilled workforce of the future will come from these communities; 74% of UCI’s current enrollment is either Hispanic or Asian. Statewide, more than four in ten STEM workers are immigrants.<sup>98</sup> These two minorities also include a growing percentage of enrollments at the region’s high schools, an overwhelming majority at California State University at Fullerton, and over one-fourth of students at Chapman University.<sup>99</sup> These populations are one way that companies can tap what Blizzard’s Jesse Meshuck calls “global talent pools.”<sup>100</sup>

The role of minorities in OC’s entrepreneurial scene is already prodigious, and likely to grow. Numerous OC firms that have shaped our diverse economy — AST Research, Vizio, Raj Manufacturing, Kingston Technologies, Sole Technology, Tillys, Yogurtland, El Pollo Loco — were founded by immigrants. One outstanding example is Anaheim-based Northgate Markets, opened by a Mexican immi-

## CHANGE IN ASIAN POPULATION, Orange County, 2000–2014

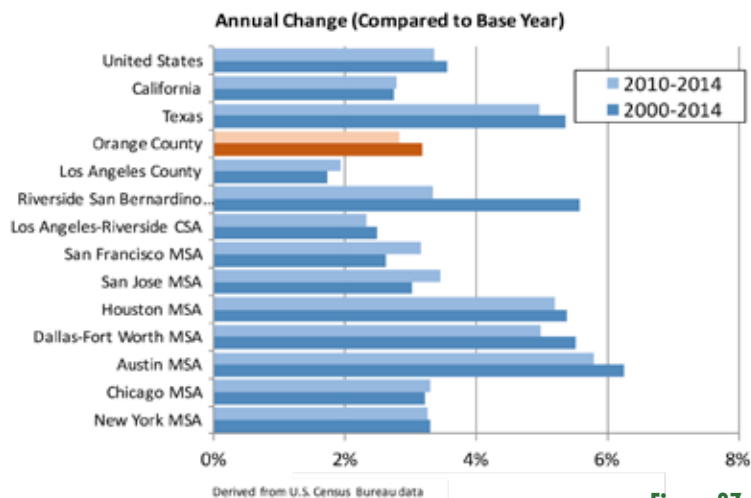


Figure 37

grant in 1980; it now employs 4,500 in its 41 California markets, with sales approaching one billion. “We came to see Northgate as a door of opportunity for us,” notes Miguel Gonzalez Reynoso, the firm’s co-President.<sup>101</sup>

## THE CRITICAL IMPORTANCE OF THE NATIVE-BORN POPULATION

Despite immigration from abroad, Orange County increasingly depends on people who were brought up here, mainly because of low migration from other parts of the country and its low birthrate. Overall, mobility in America has been dropping, including in California and here in OC.<sup>102</sup>

Since 2000, the percentage of residents who are native to the state has grown by nearly ten percent, to 55 percent. It has dropped, however, in dynamic places such as Charlotte, Dallas-Fort Worth, Denver, Nashville, and Seattle.<sup>103</sup> (see Figure 38)

This suggests the importance of better utilizing our recent high school and college graduates from the area. Im-

## PERCENTAGE OF ORANGE COUNTY RESIDENTS BORN IN HOME STATE

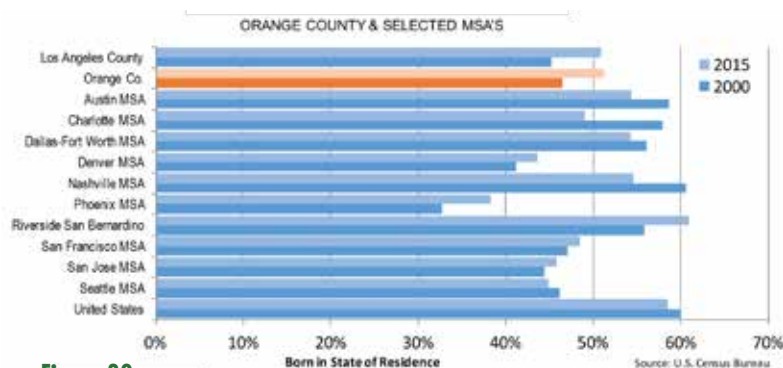


Figure 38

## HIGHEST HOUSING ADJUSTED POVERTY RATES By State, 2015

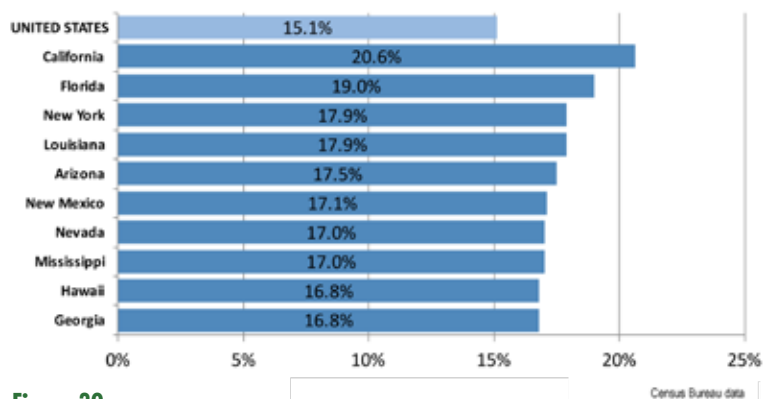


Figure 39

portantly, we need more middle-skilled jobs in medicine, information technology and advanced manufacturing, which represent some 31 percent of the county's jobs. All these industries report a consistent shortage of skilled workers.<sup>104</sup> James Pinto, a long-time manufacturing and operations consultant commented, "One of the constraints we face when creating expansion plans in Orange County is the lack of experienced, skilled, basic manufacturing people... lathe operators, welders, electricians. Many of those in these jobs are retiring, and we seem to be doing nothing to train the next generation of workers like these."<sup>105</sup>

Addressing the needs of current residents may not be as alluring as appealing to high-skilled immigrants or the upper tier of educated workers, but it is a necessity for a place that relies, and will continue to rely, on people raised here. People who have family in a place may be better suited to staying around, given the homes owned by their parents, not to mention a stronger attachment to the area's many great assets.

## GROWTH IN POVERTY

Economic trends, particularly in California, have not been kind to working class people. Adjusted for cost of living, the state suffers the highest poverty rate in the nation. The official national poverty rate is based on the national standard of living. In 2012, the Census Bureau started issuing a "supplemental poverty measure," which adjusts poverty rates between states by differences in rents.<sup>106</sup> California had a 15.4 percent official poverty rate in 2015. But when adjusted for rents using the supplemental poverty measure, the poverty rate was a much higher: 20.6 percent.<sup>107</sup> (see Figure 39)

Orange County's rate is only slightly below this number, and our poverty population has been on the increase for a generation. Michael Ruane, an affordable housing executive, notes that "There are two Orange Counties. What's striking is the enormous variation. You have poverty in a prosperous region. You have a knowledge economy with high wages, and a tourism economy with low wages."<sup>108</sup>

The Census Bureau does not calculate supplemental poverty rates, except at the national and state level. But the United Way "real cost measure," — the costs of living for a family of four — seeks to include both the poor and the near poor. It shows OC with a rate of family instability

## EFFECT OF COST OF LIVING ON POVERTY RATE

### California Poverty Measure Compared to Official US Rate: 2015

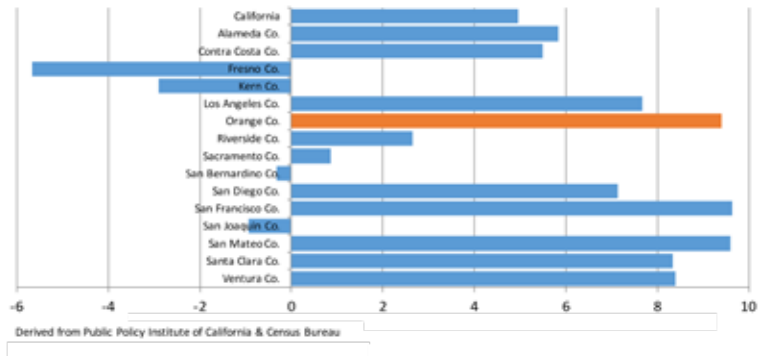


Figure 40

slightly higher than that found in the rest of the state. By their measure, 29 percent of OC households are borderline poor, a number that reaches 40 percent in large swaths of Anaheim and Garden Grove, and over 50 percent in Santa Ana.<sup>109</sup>

The county has also experienced increased inequality. From 1990 to 2012, notes real-estate website Trulia, it had the fourth largest widening of the income gap between the 90th and the 10th percentile of wage earners in the nation. San Jose ranked third; Fairfield County, Connecticut second; and San Francisco first.<sup>110</sup>

This reflects two factors: an economy that generates not enough mid-wage jobs, and soaring housing costs. The working poor are disproportionately affected by the prohibitive cost of housing. Average OC rent is \$1,799 a month, up 2.5 percent from the previous year, and forecast to keep rising. Minimum wage workers make only \$1,820 a month, so it's easy to see that they simply don't make enough to pay for rent, utilities, food, medical

care and other necessities. This forces impossible choices between paying for rent or food, or medical care.<sup>111</sup> (see Figure 40)

The poverty rate among children is especially troubling. According to Feeding America's 2017 Map the Meal Gap, OC has an astounding gap of 60 million meals missed in 2016 by more than 315,000 people, including 129,000 children. This amounts to one in six children and one in 10 adults who don't have



## ORANGE COUNTY HOMELESS COUNTS, 2006–2017

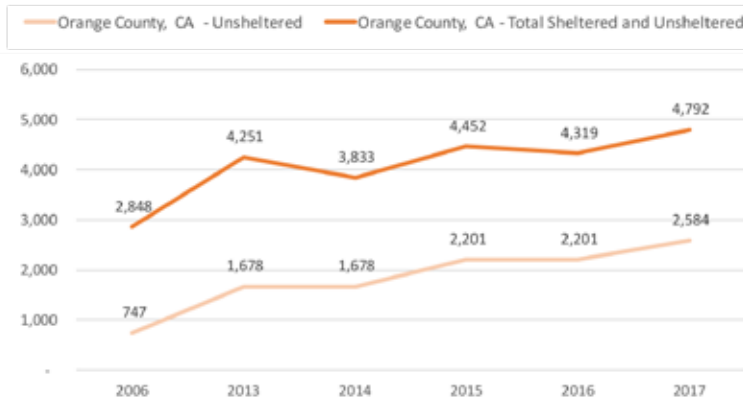


Figure 41

Source: PIT Counts by County, Department of Housing and Urban Development

enough food to live productive lives.<sup>112</sup> Nearly one in three OC children also live in overcrowded households.<sup>113</sup>

Finally, it is impossible to ignore the impact of homelessness in Orange County. Our homeless population is growing. On one night in January 2015, a point-in-time count tallied 4,452 homeless people in the county. Using that data, experts estimate that approximately 15,300 people are homeless at least one night during the year. These numbers are significantly higher than the numbers recorded in the 2013 census.<sup>114</sup> (see Figure 41)

This phenomenon affects more than just the homeless themselves. More than 400 people live on the grounds of the Santa Ana Civic Center alone, and 62 percent report having lived there for more than a year. There are also many homeless camps along the Santa Ana riverbed, in parks, and elsewhere, creating a de facto small city adjacent to Angels Stadium and close to Disneyland.<sup>115</sup> The encampments have turned some of the area's great attractions for residents, such as the Santa Ana River Trail, into something more akin to a shanty town in the developing world.<sup>116</sup> Homelessness also threatens the health of our commercial centers, as is already the case in Garden Grove's Little Seoul.<sup>117</sup>

We must confront poverty, for all our sakes. Addressing poverty represents as great an imperative as retaining and attracting professional talent. Growing poverty fits poorly with an appeal to professional talent, and diverts government attention from wealth creation for all residents to simply addressing the very basic needs of a struggling population. OC homelessness costs some \$300 million per year. According to UCI, it would only cost a fraction of that to permanently end it.<sup>118</sup>

## SECTION FOUR: A NEW POLICY AGENDA FOR GROWTH, THE URBAN FORM, EDUCATION, INFRASTRUCTURE AND POVERTY

Like much of coastal southern California, Orange County confronts the twin phenomena of rising costs, particularly for housing, and a shortage of high wage jobs. These two factors impact virtually all of the county's key issues, from attracting and retaining companies to the loss of younger, skilled workers, to the persistence of poverty.

"We have the biggest challenge — the cost of living is too high," suggests one longtime entrepreneur in OC's ophthalmological industry. "If I was younger and starting out, I would not be here."<sup>119</sup> At the same time, Southern California, including OC, continues to tilt overwhelmingly to low-wage employment.

Other high-cost economies — New York, the Bay Area, and Seattle — have done a better job on the employment part of the equation. This allows those places to provide a somewhat better standard of living than the OC, LA, and the rest of the southland region. This is particularly

applicable to new residents who have not had the benefits of owning real estate, and are not enjoying many high-wage opportunities.

## NEEDED: A BUSINESS STRATEGY FOR OC

The issue is partly due to the nature of Orange County's business community. In Chicago, New York, Seattle and Silicon Valley, as well as in Austin, Dallas and other relatively low-cost communities, the business community, sometimes aligned with government, unites to drive regional growth. Less expensive areas as well as some more expensive ones have done far better than Southern California in attracting business service jobs.<sup>120</sup>

In the 1980s, for example, the Greater Austin Chamber of Commerce along with state and city governments and the University of Texas successfully bid for

the first two large computer and semiconductor R&D consortia: MCC (Microelectronics and Computer Technology Corporation) in 1983 and Sematech (Semiconductor Manufacturing Technology) in 1988, something that should have by rights been located in the industry's dominant center, California.<sup>121</sup> This is widely seen as helping put Austin on its remarkable growth trajectory.<sup>122</sup>

Our prime rival, the Bay Area, also benefits from well-honed strategies, led by its world-dominant tech community. Organizations like Joint Venture Silicon Valley serve both as research institutions and as advocates for the local tech community. As one academic study recently suggested, this reflected something of a conscious strategy to nurture information technology. Los Angeles, meanwhile, focused on the fading aerospace sector, and failed to nurture their potentially prodigious technological resources.

below:  
Austin, TX



*There is no ecosystem. If you are not aggressive, this is a hard place to build a company. Right now, nobody is building that system.*

Similar conclusions could be reached about OC, where the tech community, although significant, has not been able to shape a commonly accepted agenda.<sup>123</sup> “Is there a business development effort here?” asked Duncan Kane, HR director for Toshiba America. “We don’t see it. I go other places and I see what’s happening. You don’t see that sense of purpose here.”<sup>124</sup>

Even areas that are also plagued with high costs have been able to attract businesses from Southern California, in part by establishing greater credibility as tech areas. How much of this is a result of regional efforts, and how much stems from other business conditions is impossible to quantify, but the impact is clear. One example, Oculus, a prominent Virtual Reality start-up in Irvine, was acquired by Facebook; the company first moved north. Now Facebook is expanding Oculus’ presence, but in the Seattle suburb of Redmond.<sup>125</sup>

below:  
the Cove



A similar dynamic is occurring in our own backyard. San Diego, for example, is home to Connect, an influential group for the tech industry for over thirty years that has helped establish SD as a tech hub with stronger growth than OC or LA.<sup>126</sup> The area also has a well-developed interface between its top educational/research institutions and industry.<sup>127</sup> Connect plays a major role in tracking and nurturing tech development, and also in getting the message of San Diego’s tech vibrancy to the media.

This is something not nearly as developed in OC.<sup>128</sup> “You have to work really hard to create a network here,” laments Andree Berengian, founder and CEO of Irvine based CIE Digital Labs. “There is no ecosystem. If you are not aggressive, this is a hard place to build a company. Right now, nobody is building that system.”<sup>129</sup>

Similarly, venture capitalist Mark Averrit recalls, “When I got here from Silicon Valley in 2003, I was amazed by the lack of connections for such a small place. There’s no unifying message here.”<sup>130</sup>

These comments were typical of our interviews with business executives, who often described the regional business leadership as highly ‘un-networked,’ with little interface between people from differing business segments. Despite a plethora of regional economic development groups with similar missions, OC does not present a united front, and has failed to shape common perceptions in a bold and accessible manner.<sup>131</sup>

Fortunately, there are early signs that this network deficit may be addressed. Some promising, newly-invigorated players like OCTANE are trying to fill that role, and the University of California Irvine Center For Applied Innovation, aka “The Cove,” has created a platform for linking the ecosystem together. The Irvine Company, in particular, has been

aggressive in rallying business leaders, trying to shift focus away from a long-standing pattern where most big players made their money in real estate, not in manufacturing or the innovation economy.<sup>132</sup> “We need a sustaining group,” notes veteran entrepreneur Jim Mazzo. “It has to be an effort built around innovation. All our wealth is from real estate. We need to build a different identity — we can’t just be a lot of rich people living near the beach.”<sup>133</sup>

Ultimately, OC needs to develop the kinds of public private partnerships that flourish elsewhere. Frank Kim, OC’s CEO, proposes convening a dialogue between local city officials and business leaders to address these issues. The area needs a mechanism to create “more options” for tech workers, notes another executive, so that they are aware of the plethora of local opportunities.

There is clearly a critical role for county and city governments in this effort, particularly in immigration. Government could also prove useful in efforts to streamline permitting— as seen in Anaheim — by helping companies wade through the regulatory morass. Studies have often identified such steps as boosts to businesses.<sup>134</sup>

These efforts cannot merely serve existing large corporate interests; many smaller, faster-growing companies represent the region’s economic future. The county, as well as local cities, must step up, given a climate which has established California as among the most hostile states to business.<sup>135</sup> There are intermittent signs that the state could be changing, as evidenced by the efforts to help business with tax breaks, but local leaders will have to work overtime to ameliorate a tough climate.<sup>136</sup>

The climate is particularly harsh for the small, often immigrant-run businesses that represent the cutting edge of OC’s

*As a result, Anaheim has created an expedited permitting and regulatory approval process for entrepreneurs.*

future. “Incentives don’t work, but the immigrant community is the low hanging fruit for entrepreneurship,” explains Mayor Tom Tait of Anaheim, a majority Latino city with substantial Asian and Middle Eastern communities. “I think everybody has a dream. Unfortunately, they have to come through City Hall, and many of these dreams have tended to get killed.”<sup>137</sup> As a result, Anaheim has created an expedited permitting and regulatory approval process for entrepreneurs.

## FROM MASS SUBURBIA TO ‘COOL FINDINGS’

The OC remains, and will be for the foreseeable future, a highly dispersed, multi-polar region with a predominately suburban form. A concerted attempt to densify it into a more traditional urban form — as advocated by some local experts — could weaken the very appeal of the area.<sup>138</sup>

below:  
Historic 4th Street  
Santa Ana





**Above:**  
**Packing House,**  
**Anaheim**

Yet there have been certain changes to the urban form that could be useful here, without adopting a high-density style. For both millennials and others, there appears to be a growing desire for more walking districts, for alternatives to the repetitive mall format, and for the preservation or creation of central districts.<sup>139</sup> “People are ‘cool finding’ — and this is less about age and more about culture. “They care about neighborhoods and where the value is,” suggests developer Shaheen Sadeghi. “Social value is something that you can’t put on an income statement or balance sheet. But the next generation is looking for the multi-level experience, and the neighborhood community connection.”<sup>140</sup>

The trend is nationwide.<sup>141</sup> Some new development reflects a distinctly ethnic flavor, such as Saigon Food Court, or a tie-in to a local, largely ethnic food culture, as seen at the Fourth Street Market.<sup>142</sup> Others are built around the architectural heritage of the past — for example, the downtowns of Laguna Beach, Orange and Fullerton — and include well-located, unique areas like Orange’s Eichler Tracts and Santa Ana’s Floral Park.<sup>143</sup> Still others, like the new development along Beach Boulevard in

Buena Park, Anaheim and Stanton, seek to revitalize old style strip centers into entertainment, hotel and residential districts.<sup>144</sup>

This evolution requires a great deal of local autonomy and support by residents. Contrary to increasing pressures from the state for conformity, communities should be able to choose how they develop. OC residents, like most Americans, might prefer a more ‘big city approach,’ such as Costa Mesa’s quest to be the “cosmopolitan heart” of OC, while others might favor something more village like, and still others, as we see in Mission Viejo, may prefer community gardens for their “agrihood.”<sup>145</sup>

In many parts of the region this shift to local diversity and uniqueness requires the transformation of traditional office, retail and industrial space into new and exciting uses.<sup>146</sup> But there is no single formula. Each of the county’s 34 cities provides a highly localized template for unique development (see sidebar on Garden Grove). “Each city has its own identity, brand, and culture,” suggests Shaheen Sadeghi. “It’s like there’s more cookies in the cookie jar.” In Sadeghi’s company this has meant different, locally-rooted developments in such cities as Costa Mesa, Garden Grove, Laguna Niguel and Anaheim.<sup>147</sup>

Unlike malls, dominated by chain stores, Sadeghi’s LAB (Little American Business) focuses on locally based companies and shops. These new spaces are critical for local entrepreneurs and artists, and could bolster OC’s reputation as a leading venue for live performances — notably, South Coast Repertory, the Segerstrom and the OC Shakespeare Festival — and such educational institutions as the Orange County School of the Arts, a top-ranked arts charter school.<sup>148</sup>

## SPACES OF THE FUTURE

As Orange County's economy becomes more focused on Pro-Tech and on smaller firms, it needs to develop new kinds of workspaces to accommodate smaller, and more creatively inclined, businesses. At a recent office furniture trade show in Chicago, this trend was dubbed "resimercial."<sup>149</sup> Often, this involves providing a "palette of postures," where workers can choose traditional desks or couches, soft textures, and cozy environments.<sup>150</sup>

One example of this effort is the in-process transformation of the aging Laguna Hills Mall, where the vacancy rate hit 34 percent. It is reinventing itself as "Five Lagunas," a self-described "walkable village."<sup>151</sup> Scheduled to re-open in 2018, it will feature a one-acre park with a giant outdoor screen, where visitors can attend live music shows and watch sporting events. Restaurants, a fitness center and a 988-unit apartment complex will broaden a space that was once purely focused on conventional retail stores.<sup>152</sup>

This mixture of commercial uses can also be seen in the rapid growth of co-working locations across the world, now used by more than a million workers, with projected growth approaching 3.8 million by 2020.<sup>153</sup> The national organization that pioneered this new form of development, WeWork, has found a receptive market in their Irvine location, which has attracted numerous tech, marketing, virtual or augmented reality, advertising, real estate, and software firms, notes Taylor Patterson, Director of Public Affairs at WeWork. This mix loosely represents their target market nationwide.<sup>154</sup> Such locations are increasingly favored not just by the self-employed, but by mainstream firms like GE, KMPG and Merck.<sup>155</sup>

Another potential model may be The Press, a large new development in Costa

Mesa, built on the former site of the Los Angeles Times printing press. When completed, The Press will feature three acres of outdoor space, a fireplace, basketball court, and other amenities. It is designed to meet the needs of such Pro-Tech industries as fashion, entertainment, and even biomedical startups.<sup>156</sup> "We're getting smarter about what we need in the workplace," says the Press' developer Hoonie Kong. "People want to interact with others. People want to enjoy the outdoors. People want to live, work and play."<sup>157</sup>

Although often associated with traditional urban cores, these kinds of spaces are now more commonplace in the suburban environment.<sup>158</sup> Their quality and their connection to community may be increasingly important in an era of greater self-employment, 'gig' work, and weaker corporate affiliations.<sup>159</sup> This trend is particularly marked in the creative professions, which play an increasingly role in the evolving OC economy, and also in engineering-related fields.<sup>160</sup> As Kong suggests, such environments may not appeal to all companies — "people still need their peace and quiet" he notes — but such innovative spaces represent a critical component for the OC's nurturing of an entrepreneurial, artisan economy that represents its best hope for the future.

below:  
The Press,  
Costa Mesa



## TRANSPORTATION, TRANSIT AND FUTURE OF MOBILITY

Transportation is crucial to the modern, high-income metropolitan area world-wide. Economic research indicates that the more jobs a metropolitan area's employees can reach in a reasonable time, the more likely job creation is to trend favorably.<sup>161</sup> We believe that transportation is one of Orange County's principal advantages, because of its substantial, relatively well-maintained freeway system.

This reflects choices made by OC to use Measure M, enacted by the voters for transportation purposes in 1991, for substantial improvements to arterial and local roadways, which are so important as a 'safety-valve' for alternative routing in cases of extreme freeway traffic congestion. Further, funding has been provided to synchronize traffic signals, which also improves capacity. Orange County enjoys travel times of 27.9 minutes one-way to employment, compared to 31.6 minutes in Los Angeles County.<sup>162</sup> This is only 1.3 minutes longer than the national average, which includes both urban and rural

areas. OC's policy success, particularly compared to that of Los Angeles, can be demonstrated by how little average work trip travel times have increased. Between 1990, the year before Measure M became effective, and 2016, the average work trip travel time of OC residents increased from 25.5 minutes to 27.9 minutes. Since the 1990 Census (before the first rail line was opened), LA's work trip travel time has increased twice as much as that of OC.<sup>163</sup> (see Figure 42)

This matters, because the overwhelming majority of OC workers enjoy access to automobiles. Roughly 88 percent of residents reach work by car, a figure that also applies to some 80 percent of those in poverty.<sup>164</sup>

Despite these realities, some suggest a need to develop a large, fixed rail transit system.<sup>165</sup> Although these systems work well in the six largest downtown cores in the older legacy cities — New York, San Francisco, Chicago, Boston, Philadelphia, and Washington DC— they have persistently failed in more spread out, multi-nodal, suburbanized areas such as OC. Consistently, in these areas, conventional transit systems fail to provide the mobility and flexibility of cars.<sup>166</sup>

OC policy makers should in particular weigh the Los Angeles experience.<sup>167</sup> For the most part, LA is far older in its development than OC; in 1950, it was the nation's third largest county, with more than 4,000,000 residents, while OC had a total population little more than 200,000.

In the 1980s, LA decided to build a massive new train system to reduce traffic congestion. The roughly \$16 billion so far invested, however, has failed to transform our sister region into a transit powerhouse or to lessen its dependence on automobiles. In fact, overall bus and rail ridership in 2017 was nearly 20 percent below the peak of bus-only ridership in 1985. The percentage of employees using

### CHANGE IN WORK TRAVEL TIME: 1990–2016 Orange County, Los Angeles County and the U.S.

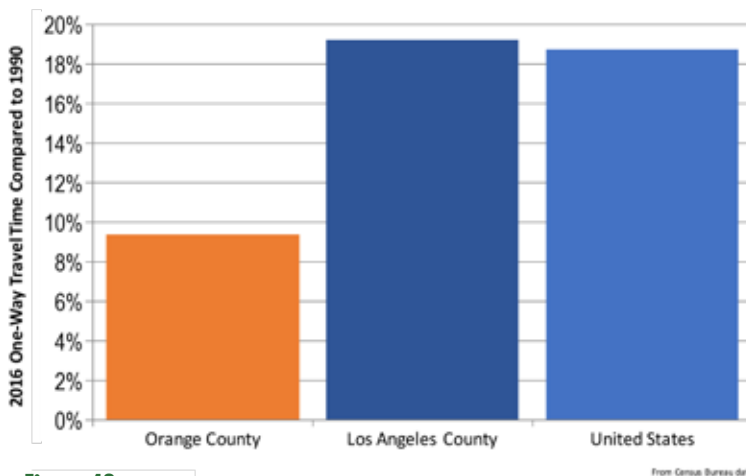


Figure 42

transit to access work declined, from 6.5 percent in 1990 to 6.0 percent in 2016. Meanwhile, solo driving increased more than 30 times the transit increase, while there was an increase of seven employees working at home for each commuter.<sup>168</sup>

Our policy makers need to resist the pressure to emulate LA's transportation policies. OC has used its 0.5 percent sales tax principally to ensure smoother operation of traffic, both on freeways and on arterials. In contrast, LA has used nearly all of its 1.5 percent sales tax on transit.

The implications are profound. LA — denser, older and poorer — has largely failed to increase transit ridership or reduce car use, and there is every reason to believe that transit would do even worse in the OC. Ridership on OCTA has dropped more precipitously than it has in LA, and more than the national average has. The mostly empty, underused \$180 million-plus ARTIC transit station in Anaheim, which the OC Weekly branded as “a station to nowhere,” stands as a testament to transit futility.<sup>169</sup> (see Figure 43)

Rather than invest in failing systems, OC should embrace new technological solutions that fit better with its existing suburban form. This includes promoting home based work (much of it called ‘telecommuting’), which fits our large self-employed population. This mode of ‘commuting’ is now more prevalent than transit in 43 of the 53 metropolitan areas with more than 1,000,000 population, according to the American Community Survey.<sup>170</sup> Last year telecommuting passed transit commuting in the Los Angeles -Orange metropolitan area. This large increase in working at home also helps reduce greenhouse gases at virtually no public cost and in sharp contrast with the rapidly escalating subsidies for mass transit.<sup>171</sup> (see Figure 44)

The country should also explore investments in new technology-enabled

## RIDERSHIP DECLINE: 2014–2017

### Orange and Los Angeles Counties compared to the U.S.

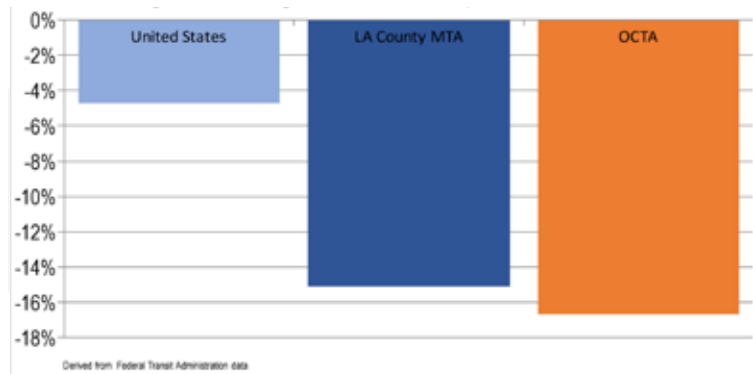


Figure 43

systems that could assist those who cannot afford a car or, for some reason, prefer not to drive.<sup>172</sup> For example, door-to-door transport wherever Uber and Lyft operate.<sup>173</sup> Ride hailing systems are already being used in lieu of underutilized bus systems, often by offering vouchers. Promisingly, OCTA is one of the first transit agencies in the nation to establish such a partnership through a contract with Lyft to provide shared ride hailing services on two routes that were eliminated in San Clemente.<sup>174</sup>

OCTA should seek to implement similar strategies wherever the public good can be better served. Further in the future, the autonomous car could make even more revolutionary impacts on both the urban form and transit.<sup>175</sup> This in-

## JOURNEY TO WORK - TRANSIT & WORK AT HOME

### Since Before Rail, Combined Los Angeles -OC MSA: 1990–2016

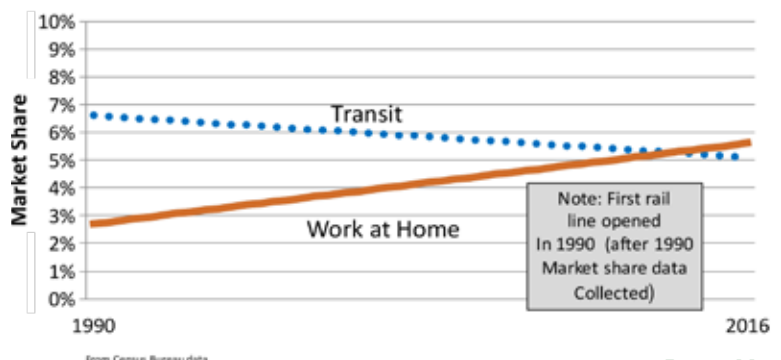


Figure 44



**Above:**  
depiction of  
autonomous suburb,  
courtesy of  
Alan Berger, MIT

novation seems likely to further weaken conventional transit outside the services that feeding legacy cores (central business districts).<sup>176</sup> With the onset of new technologies, notably autonomous cars, according to a recent Bain report, these dispersive trends will not just continue, but accelerate.<sup>177</sup> OC should focus on these technologies that fit with its dispersed, multi-polar, suburban nature.<sup>178</sup>

## ADDRESSING THE HOUSING CRISIS

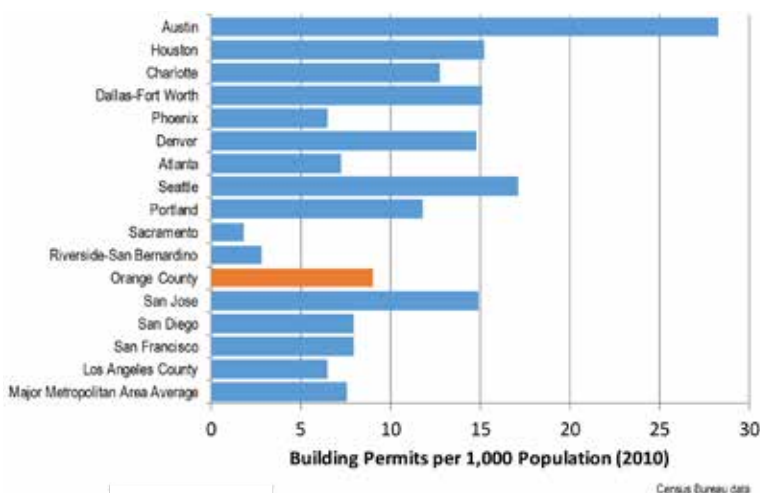
Housing represents arguably the greatest impediment to Orange County's future success. But in trying to increase supply, it does not need to follow the old models that are so passionately embraced by planners and some developers.<sup>179</sup> Rather than the ultra-dense future proposed by some, we need to pioneer new models that offer a range of housing options and rich amenities for walking and biking, located close to a powerful economy.<sup>180</sup>

Yet it is unrealistic to expect such development to meet the regional shortage, as long as OC continues to produce both multifamily and single family houses at a rate well below the national average.<sup>181</sup> (see Figure 45 & 46) In addition, costs continue to rise not so much as a response to growing local wealth, but from the massive presence of investors from other countries, notably China. This has been particularly marked in Irvine, where some developments count foreign buyers, many paying in cash, for half or more of all purchases, further raising prices for local residents.<sup>182</sup>

These investments may enrich developers, but they do little to encourage middle income housing. A further complication is the opposition to housing growth by residents in already-settled areas, with resistance supported by open space requirements and traffic concerns. Communities like Sunset Beach and Newport are concerned with developments that might impact their cherished character.<sup>183</sup>

Yet if large scale new development may prove difficult, there are still some promising opportunities to increase the size and diversity of our housing supply. One is to take advantage of redundant retail space engendered by a shift to on-line shopping.

## NEW MULTI-FAMILY BUILDING PERMITS PER CAPITA Selected Counties and Metropolitan Areas: 2010–2015



**Figure 45**

As many as one-third of US malls are now considered endangered, as retailers either close down entirely or shift on-line.<sup>184</sup> Last year, 108.5 million Americans shopped online during Black Friday weekend, compared with 99.1 million who shopped in stores. (see Figure 47) It was the first time more Americans shopped online. Credit Suisse, the financial services firm, predicts 25 percent of US malls operating today could close by 2022. Even before this development, the US was clearly over-retailed, with twice as much retail space per capita as the rest of the world, and six times as much as Europe.<sup>185</sup>

The degree to which this already applies to OC is disputed within the real estate community; retail vacancies are rising but are still less than half the rate in the rest of the country.<sup>186</sup> Of course, many of our strongest malls still do well — the Irvine Spectrum, South Coast Plaza and Fashion Island, for example — and new ones like Huntington Beach’s Pacific City may also find a good future in the new environment, providing live entertainment next to new residences and a hotel.<sup>187</sup>

But some reduction in commercial real estate seems inevitable. In June, retail jobs had dropped year-over-year by nearly one percent, even as the county’s population grew and retail sales rebounded. Numerous large retailers that shut doors nationwide also did so in OC. Overall, new mall-type projects are on the decline, and retrofits are the order of the day.<sup>188</sup> Shopping areas like Anaheim’s Garden Walk that seem stuck in the past have barely recovered from the recession.<sup>189</sup>

Besides retail properties, other forms of under performing commercial real estate, including industrial and office space, could provide opportunities for builders to create new kinds of housing for local residents and newcomers.<sup>190</sup>

## NEW SINGLE FAMILY BUILDING PERMITS PER CAPITA Selected Counties & Metropolitan Areas: 2010–2015

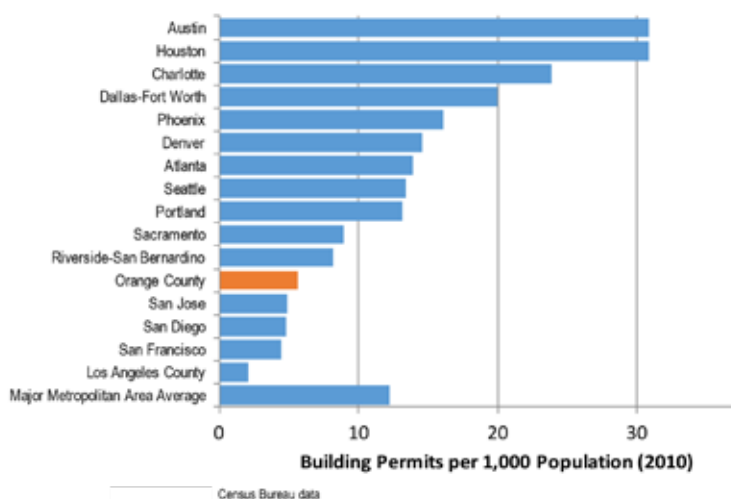
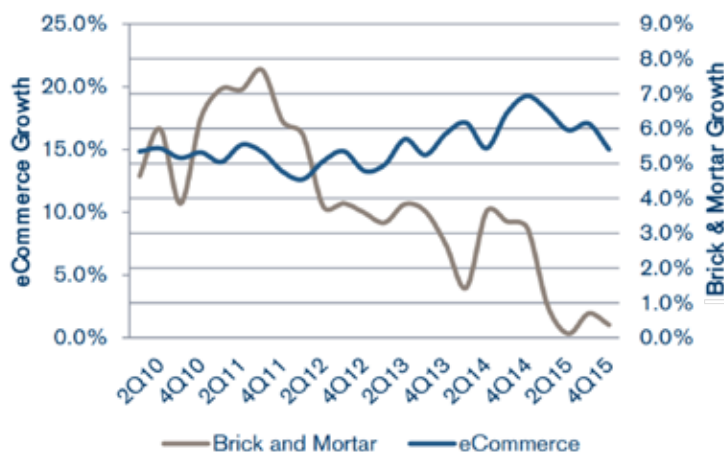


Figure 46

Potentially, construction could include some multi-family structures, as well as the kinds of townhouses that are cost-effective and attractive to retirees and first-time buyers.<sup>191</sup>

Such locations have many advantages. Often, they sit on existing transportation corridors, have few immediate local residents, and already have water and power infrastructure. Hopefully, that pre-existing infrastructure can translate into faster

## CHANGES IN RETAIL SHOPPING PATTERNS FROM BRICK AND MORTAR TO E-COMMERCE



Source: U.S. Census Bureau and Credit Suisse Research Report, "Apparel Retail & Brands Making Sense Of A Tumultuous Year", May 2017

Figure 47

approval times and lower costs of regulatory compliance.

Housing, notes a recent Census study, is easily the biggest motivation for people who move.<sup>192</sup> The relative paucity of new home building in California and OC has allowed other areas to gain a competitive edge among potential homeowners, particularly for the most sought-after product, the single family home.<sup>193</sup> Remarkably, for a region so tied to the suburban dream, OC has a 57.7 percent rate of owner-occupied housing, well below the national average of 63.9.<sup>194</sup>

What kind of housing do we need to develop? Roughly 80 percent of millennials express interest in acquiring their own homes; as they enter their 30s, they want to purchase a single family or town-house-like dwelling.<sup>195</sup> A Fannie Mae survey of people under 40 found that nearly

80 percent of renters thought owning made more financial sense, a sentiment shared by an even larger percentage of owners.<sup>196</sup> They cited asset appreciation, control over the living environment, and a hedge against rent increases.<sup>197</sup> Homeownership continues to be an important part of the American dream for millennials in California and elsewhere, tying for first place with “having a fulfilling job.”

OC also needs to develop housing for teachers and early responders, whose skills are critical but whose pay is often too low to afford a median priced house. An average-salary California school teacher can afford only 17 percent of the houses in the state; in OC it is 9 percent. For first responders — firefighters, nurses and police — the percentage is now 11 percent.<sup>198</sup> For most, high density housing will not meet most of their needs.<sup>199</sup>

## SIDEBAR: TURNING AROUND GARBAGE GROVE

Garden Grove is on the cutting edge of what urban writer Johnny Sanphillipo calls an “incremental urbanism” that works in conjunction with the city DNA and the built environment.<sup>204</sup> The city grew, like many in northern Orange County, in the heyday of the mass production suburb. In that paradigm, the local Main Street struggled against the rise of large shopping malls. Many, notes Mayor Steve Jones, labeled it “Garbage Grove.”

Jones, a native of the town, feels that much of Garden Grove has been perceived as “very sterile,” and reflective of a value system that is shallow, materialistic and self-absorbed. Now, that is changing. The city’s population, once overwhelming white, is now predominately Asian and Latino. The city’s Latino, Korean, and Vietnamese communities have all developed their own districts, enhancing economic potential.

At the same time, the interest of millennials and young families has helped revive downtown and revitalize its Amphitheater as a place that could serve as the intersection of all these cultures. Local artists, including Todd Merenovich, have contributed to shifting the city’s identity towards a more diverse paradigm.

Shaheen Sadeghi’s development of what he calls The Cottage Industries, located in an older, now-restoring downtown neighborhood, could deliver new entertainment and cultural options for both millennials and families.<sup>205</sup> Another development, the Steelhead food court, is coming to town soon, bringing in new food options. In the process, Garden Grove could be ditching its unenviable status as an aging 1960s-era “Garbage Grove” and become an exemplar of the emerging, interesting, part of the archipelago that is the new OC.

## HIGHEST GROWTH JOB CATEGORIES IN OC, 2007–2016, with Average Annual Pay, Tilt to Lower Wages

And, to retain and nurture the critical Pro-Tech workforce, we will need to find ways to create housing that appeals to the upwardly-mobile, including those who come from abroad.<sup>200</sup> Neither multi-family housing nor \$350,000 ‘tiny homes’ will fill the needs of a county that relies on middle class families for its base workforce.<sup>201</sup>

In the past, far-seeing home developers like William Lyons or Donald Bren met the challenge of an exploding population.<sup>202</sup> Today, the real estate community faces a similar challenge from millennials, even though the growth rate is lower. The demographic pressures may be smaller, but the economic and regulatory challenges are much greater.<sup>203</sup> Where can we find tomorrow’s Lyons or Brenns?

## THE FATE OF THE OC’S WORKING CLASS

The challenges that face Orange County’s working class should be at the top of local concerns. Over the last two decades OC’s poverty rate has climbed. Today, nine of its fastest growing categories of jobs pay below \$40,000 per year, while the annual salary needed to afford a 1-bedroom apartment in Orange County stands at around \$53,000 per year.<sup>206</sup> (see Figure 48)

Large sections of OC— notably in Fullerton, Santa Ana and Anaheim — now resemble the more hardscrabble sections of Los Angeles and other large cities.<sup>207</sup> As in LA, rents in these areas have risen steadily, forcing many families to live in overcrowded homes.<sup>208</sup> Santa Ana contains the fourth and eighth most overcrowded ZIP codes in the nation.<sup>209</sup> The overcrowding issue is far greater in Orange County than most of our key competitors. (see Figure 49)

Rank in Growth	Industry	Growth in Employment 2007-2016	Average Annual Pay
1	Restaurants and other eating places	130,985	\$20,429
2	Individual and family services	23,968	\$17,757
3	Other amusement and recreation industries	12,530	\$22,653
4	Outpatient care centers	10,526	\$69,313
5	Other general merchandise stores	6,948	\$28,596
6	Offices of other health practitioners	6,178	\$45,024
7	Management and technical consulting services	5,940	\$84,072
8	Medical equipment and supplies manufacturing	5,464	\$72,425
9	Building equipment contractors	4,941	\$66,713
10	Management of companies and enterprises	4,311	\$98,791
11	Nursing care facilities	3,555	\$42,218
12	Employment services	3,400	\$36,879
13	Software publishers	3,233	\$143,489
14	Other schools and instruction	3,081	\$20,140
15	Offices of dentists	3,025	\$47,618

Low Wage Mid Wage High Wage

Source: Bureau of Labor Statistics, U.S. Census

Figure 48

At its most extreme, the housing crisis produces the awful consequence of homelessness, which impacts not just those with mental and substance abuse issues, but working-class families. This phenomenon is most pronounced in regions, including OC, where the rise in rents versus incomes is most profound.<sup>210</sup> Right now, the county’s new housing construction is overwhelmingly oriented towards high-income consumers, producing expensive units that do little or nothing to bring down costs.<sup>211</sup>

## OVERCROWDED HOUSING: OWNED & RENTED Orange County and Selected Areas: 2015

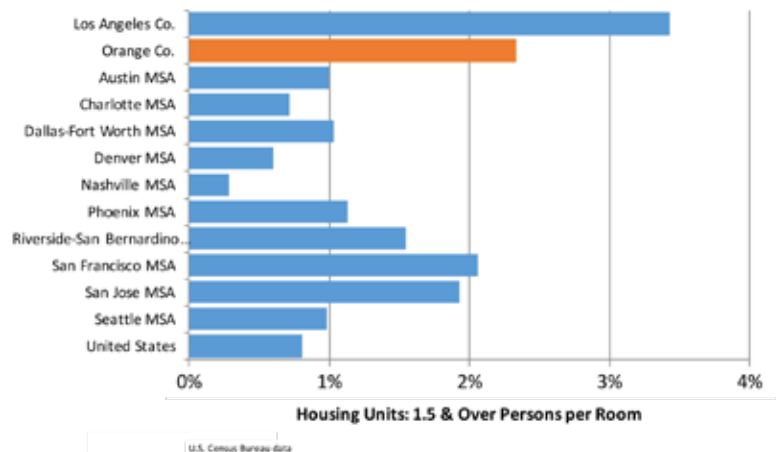


Figure 49

## SCHOOL AGE POPULATION GROWTH: (5 TO 14) Orange County and Selected Areas: 2000–2015

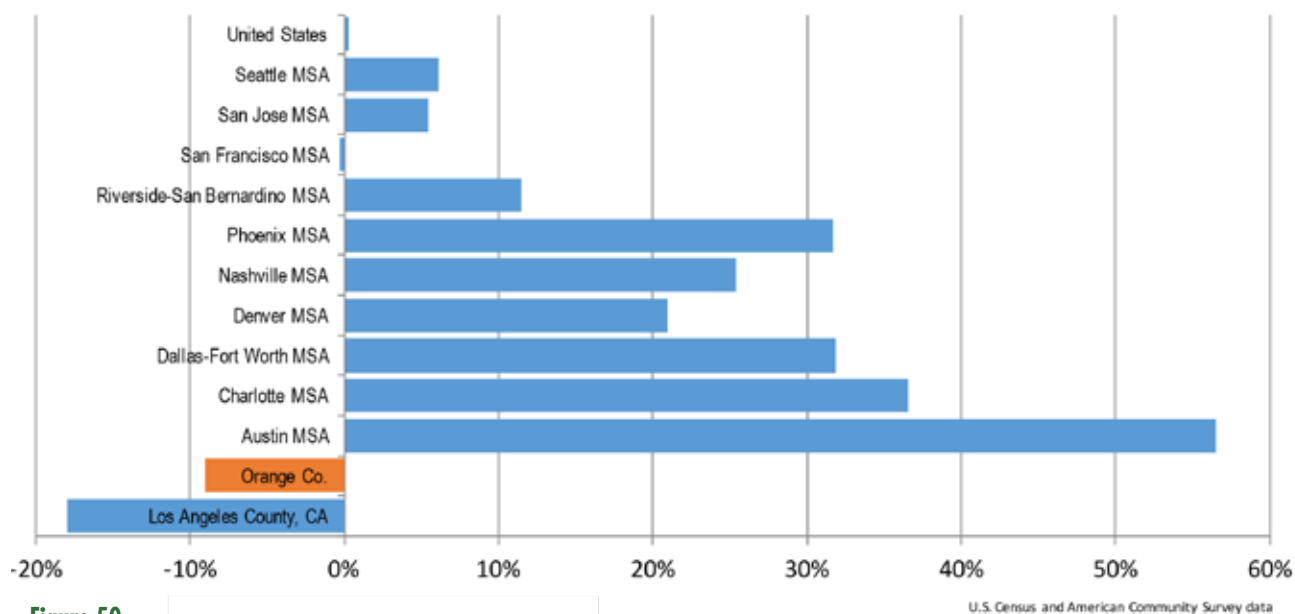


Figure 50

Conventional solutions proposed by government may not be as successful as innovative approaches developed by non-profits.<sup>212</sup> Church related groups such as City Net may be best suited to addressing these issues, as they are now trying to do in Anaheim.<sup>213</sup> New programs by Housing First have worked to stabilize the chronically homeless.<sup>214</sup> This approach has already been implemented in Utah, which has seen a 90 per cent reduction of homelessness over the past decade.<sup>215</sup>

Fortunately, some solutions can be seen— for example, successful projects in both Yorba Linda and Buena Park have benefited from tax credits, and from being located in job rich areas with employment possibilities.<sup>216</sup>

New technologies, including the use of digital tools, could reduce costs, following OC's well-established record as a real estate innovator.<sup>217</sup> Traditional public housing programs do not meet the need. The City of Anaheim alone has 15,000 to 20,000 people currently on the waitlist for affordable housing. However, the city only has about 6,000 vouchers for Section

8 housing — federal rental assistance to landlords — available.<sup>218</sup>

Orange County Neighbor Works, which advises and helps arrange financing for working class purchasers, has made progress. But, notes Karla del Rio Lopez, Vice President of Strategic Partnerships at NeighborWorks, the recent surge in housing prices has made things far more difficult. “Now,” she notes, “we see very few low or moderate-income Latinos closing on home purchases.” Part of the problem, del Rio Lopez suggests, stems from the erosion of OC middle-skilled jobs.<sup>219</sup>

## THE EDUCATION IMPERATIVE

Orange County's future also depends on its ability to train, and retain, skilled workers. This is critical both in areas with high educational attainment like Irvine, and those with low levels, like Santa Ana.<sup>220</sup> As economist and former Chapman University president Jim Doti has noted, much of what we focus on in

alleviating inequality is “directed at the symptoms of inequality, such as welfare, homelessness and crime.”

A better approach, he suggests, would be to improve low-performing schools in poor areas.<sup>221</sup> Education appears to be the best bulwark against poverty; some 26 percent of high school dropouts in the county live in poverty, compared to barely 7 percent who attended college.<sup>222</sup> Education and skills are also now a central, even primary concern for employers. Throughout the past two decades, education and skill levels have emerged as leading factors in determining locational decisions.<sup>223</sup>

Compared to its neighboring counties, OC is well-positioned to take advantage of these trends. The county’s overall graduation rates and test scores surpass overall state levels, as well as those of Los Angeles, the Inland Empire and, by a smaller margin, San Diego. Critically, traditionally challenged districts like Santa Ana are showing signs of improvement.<sup>224</sup>

Much of our emphasis in education must be on low income communities. And, over time, OC’s decreasing school age population will present a major challenge to local employers. (see Figure 50) This challenge is likely to increase. Between 2010 and 2060, OC’s school age population is projected to drop by 9 percent, the largest decline among California’s large regions. The college population is also expected to fall 13 percent, the second biggest drop behind LA.<sup>225</sup>

In a county with a shrinking pool of school graduates this diminishing resource cannot be allowed to go to waste, (see Figure 51) particularly given the projected labor shortages nationwide. Given the large proportion of students from poor backgrounds — now 27 percent, above the state average— the OC needs to focus on skills that can lead to higher earning outcomes.<sup>226</sup> Basic industries,

still a major source of mid-skilled jobs, increasingly require high levels of skills.

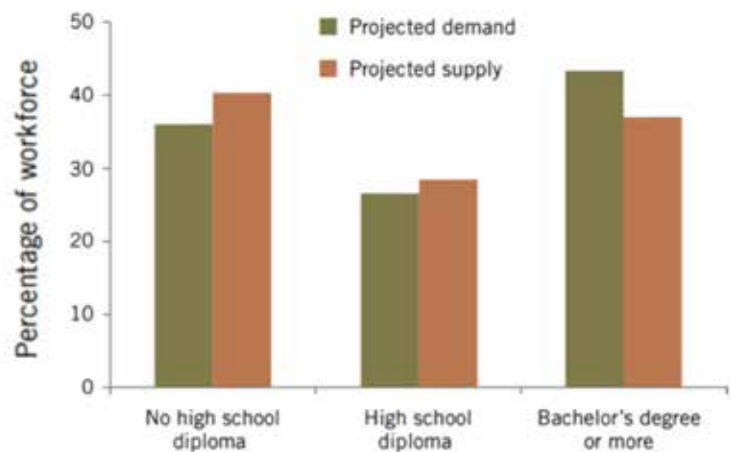
Local job training and skills-based education has been one way that some historically backward regions in the south have been able to compete for new industrial investments over the last two decades. Our challenged but still vibrant industrial companies face a potential skill shortage.

As many as 30 percent of all new, high wage jobs in the state will require practical education.<sup>227</sup> Many skilled jobs pay considerably better than those which require a four-year education, according to The Georgetown University Center on Education and the US department of education.<sup>228</sup> These are the jobs we need to emphasize.<sup>229</sup>

In addition to K-12 education, educators cite the importance of the two year and community college network to create the next generation of STEM-related middle-skill jobs. OC organizations are also promoting STEM education through volunteer programs. Ocean Institute, based in Dana Point Harbor, has helped educate elementary and high school

## COLLEGE-EDUCATED SUPPLY GAP

By 2025, Demand Will Outstrip the Supply



SOURCE: PPIC projections.

Figure 51

*“The plan of a university, like that of a city, should be a mechanism for enabling things to happen, for the enhancement of life.”*

students on oceanography for 40 years. Annually, 125,000 students go through their programs, which are being broadened to include university researchers in the field.

Some believe that automation and the rise of artificial intelligence will eliminate many of these jobs, but other experts expect that new employment opportunities, including in production industries, will emerge. Automation and digitalization certainly will destroy some jobs, but also create others in hospitals, factories, warehouses and elsewhere. History suggests that technological change more often redefines work than eliminates it.<sup>230</sup>

At the same time, digitization creates some enormous new opportunities for highly skilled workers. Shortages in the tech sector are often severe, particularly for specialized knowledge in expanding fields like cyber security.<sup>231</sup> The role of our leading educational institutions — UC Irvine, Cal State Fullerton, Chapman University — as well as our network of community colleges is critical. Fortunately, OC has a growing number of engineering graduates, led by UCI but also including growing engineering programs at Cal State Fullerton and a new school at Chapman.<sup>232</sup> The fact that UCI graduates many students from working class backgrounds — its Latino enrollment has doubled in a decade — is a great indicator for the future of the county.<sup>233</sup>

Ultimately, our schools, and particularly our Universities, need to see their role not merely as the education of young people, but as the nurturers of the regional economy. Universities need to

see their futures as tied to their regions; the rise of tech industries in places like Boston, the Oxford-Cambridge complex in the United Kingdom, and of course Stanford/Silicon Valley demonstrate how universities now play a central role in regional economies and are, at the same time, enriched by them.

As the late Sir Peter Shephard wrote in a report on Urban Regeneration, published by University College London’s Urban Laboratory: “The plan of a university, like that of a city, should be a mechanism for enabling things to happen, for the enhancement of life.”<sup>234</sup> These words should be closely considered by everyone in education from the top echelons to the grade schools and embraced by the county’s business and political leadership.

## SECTION FIVE: MARKETING THE DREAM

Orange County faces key challenges to its wealth-creating population due to escalating housing costs, sparse new high wage employment, an aging population, an under-leveraged business community, and growing levels of inequality, poverty and homelessness.<sup>235</sup>

Despite this, there remains a strong “why should we worry?” constituency, who point to our still strong, if stagnant, high-end employment base, surging low-wage tourism employment, and rising property prices as indicators that the county is doing well.<sup>236</sup> Yet this largely real estate-centered notion fails to address mounting threats to its homeowners in affluent areas, for example, legislative moves to limit Chinese overseas investment or the new tax bill.<sup>237</sup> Similarly, while the growth of jobs may parallel the gains of the 1980s, the components of that growth in terms of wages have changed.<sup>238</sup>

For all the region’s manifest blessings,

*“In the end, cities are competing globally for population, students, cultural events, corporations, ventures and live entertainment,”*

large firms continue to leave, and the demographic picture could well become ever more challenging. “Between taxes, wages and labor laws, big corporations are not coming here and not likely to do so,” suggests Scott McGregor, former CEO of Broadcom. As to the movement of firms to the even more expensive Silicon Valley, he says, “The Bay Area is an anomaly with prohibitive costs and traffic, due to its venture capital and entrepreneurship. We are not in the same boat.”<sup>239</sup>

As a county, we stand between a handful of high-end locations, which attract small headquarters operations to places like New York, Chicago and San Francisco, and a growing number of more affordable locations, largely in smaller cities and the sunbelt, such as Phoenix, Las Vegas and Dallas. In neither case is the OC on the winning side of the equation; our future instead lies with small, locally rooted firms which may grow here, rather than relocations.<sup>240</sup>

An economy increasingly dependent on culture, technology and lifestyle, Orange County needs to enhance its standing as a place that can attract high skilled labor.

## THE CRITICAL ROLE OF MARKETING IN MODERN ECONOMIES

“In the end, cities are competing globally for population, students, cultural events, corporations, ventures and live entertainment,” notes Brookings’ fellow Greg Clark. Geographies, whether of cities, counties or regions, should not look at this as predominately a matter of advertising. Instead, he suggests, it involves “leaders bringing together different representatives of the city. The main steps would be to benchmark the city’s identity against other places with comparable as-

sets; recruit citizens and city institutions to build an alliance; align existing events and marketing with an agreed-upon common story; train citizens and civic leaders to be champions of that story; and review progress annually to develop additional approaches.”<sup>241</sup>

As Clark’s statement implies, to remain competitive in the labor and capital markets the county and its business leadership need to develop a strategic framework that enlists both business professionals and their employers. This will require an economic plan, regulatory changes, public/private cooperation, and a compelling brand narrative that positions the OC as one of the best places in the world for professionals.

Regions thrive in large part by perceptions. Even in tough times, places like New York, Chicago, Los Angeles and San Francisco have remained iconic, their images and lifestyles projected through media that is concentrated in these cities. A delightful story well told may not guarantee prosperity, but it does place a region in front of potential newcomers, entrepreneurs, and companies seeking new locations. People and organizations increasingly seek to align themselves with products that reflect their views of their own identities, and seek out a compelling story that satisfies this desire.<sup>242</sup>

But the best marketing and media manages to help regions accomplish Societe’s maxim of endeavoring “to be what they desire to appear,” while painting a picture of the future people want to create.<sup>243</sup> As one urban marketer put it: “It’s a very scary thing for a city to put a stake

in the ground. It takes real vision. You have to see past election cycles and those people that you alienate.”<sup>244</sup>

The predominance of social media places a greater need for companies and regions to tell their stories in the intense battle for talent, capital and entrepreneurs. Many amenities can now be accessed from anywhere, wearing away some of the traditional advantages of place. The key is being able to persuade people about the virtues of your location.

## TAKING GROWTH FOR GRANTED

For nearly half a century, Orange County has had little need to tell its story. The beaches, the climate, and the leisure lifestyle all called out to people, particularly those seeking a location in Southern California without the congestion, poor schools and crime associated with Los Angeles. We won largely by default.

That period of ‘easy wins’ is now decisively coming to an end. OC’s lack of story-telling and inability to project a positive image is among the threats to our long-term prosperity. Other regions — from neighboring San Diego to Silicon Valley, Austin, Raleigh, and New York—

have successfully projected an image of success, achieving widespread recognition as tech hubs, cultural centers or simply wonderful places to live.<sup>245</sup>

This approach has also been adopted globally. For example, in the recent campaign to attract tourists, residents, and companies to Barcelona, the City Council developed a storytelling framework and social media strategy that boosted its online social reach 1400% in one year, and created digital “evangelists” for the city.<sup>246</sup> Amsterdam, after developing a coherent strategy and campaign to attract tourists and investors to an old metropolis, has risen to eighth on the Global Power City Index.<sup>247</sup>

## WHAT OUR COMPETITORS GET... AND WE DON'T

You don’t have to travel far to see an effective marketing campaign, designed largely to attract skilled workers and the companies that employ them. San Diego: Life. Changing, an initiative to attract and retain talent to strengthen San Diego’s position as an economic hotspot, is funded by the area’s leading companies. This effort has created a series of recruitment tools for use by companies, including video footage and quality of life facts.<sup>248</sup>

The San Diego Region is also calling on its citizens to tell their stories to make this campaign a success. Rather than solely relying on facts and figures, the region is using real people to show why San Diego is like no other place. They have developed YouTube programs like “Happiness is calling families to San Diego,” that received a remarkable 2.5 million views.<sup>249</sup> In addition, the San Diego Regional Economic Development Council has a great website.<sup>250</sup> There isn’t a strong analogue to this in OC.

Some may argue that this effort pales

**Below:**  
San Diego  
Regional Economic  
Development Council  
web presence.



compared to the media commanded by OC attractions like Disneyland or Knott's Berry Farm. But the San Diego campaigns are not about one venue – they are about the whole region. Disney, a critically important player in Orange County, is marketed as a global draw, not a regional attraction.

In addition, the San Diego campaign targets not just a broad range of consumers, but, specifically, the young adult generations: hipsters, college students, and young families. The presentation is peppered with indie music and portrays the place as perfect for families, dates, nightlife, and gatherings with friends.<sup>251</sup> (see Figure 53)

Even though there are remarkable similarities in the two neighboring regions, OC has made no such strong marketing effort. The results of a search for marketing videos promoting the county is unimpressive, with the exception being the ones developed by Blizzard.<sup>252</sup>

These were created, notes company HR director Jesse Meshuck, precisely because there were not any usable marketing materials for attracting potential employees to the county. "The selling point of OC is it's a great family environment and better place to be," he suggests. "The problem is OC does not tell the story well."<sup>253</sup>

A review of media showed how right Meshuck is. One local twitter feed to promote the region has not had a post for a year. A site from the county highlights some events with outdated visuals and a clunky user interphase. It does little to showcase the cultural diversity and innovative culture of the region.<sup>255</sup> "What we need to focus on instead is what people create in this culture," notes Sole Technologies' Pierre Senizergues. "We have the creative people. We just need to incubate it and share that with the world."<sup>256</sup>

Places like Disneyland and compa-

## HAPPINESS IS CALLING FAMILIES TO SAN DIEGO

### Happiness is Calling video



Figure 53

nies such as Blizzard cannot pick up the slack; telling a company story and that of a place are two different things. Even LA, certainly a household name worldwide, has produced a high quality professional video: "Discover Los Angeles" has attracted over 200,000 views.<sup>257</sup> (see Figure 54)

One clear danger of not telling your own story is that others, with different motivations, will tell it for you. Our survey found that few people outside the region distinguished between OC and LA. To many, notes Garden Grove Mayor Steve Jones, the image of OC is the one portrayed in *Housewives of Orange County*: "self- absorbed, materialistic and

## DISCOVER LOS ANGELES

### Get Lost in L.A. Video



Figure 54

shallow.” The globally recognized TV show *The OC* has not done much to help either, explains OC music pioneer Jon Reiser. “While it highlighted some of the great features of OC, it also created an artificial perception in the eyes of so many. Now the cool people from OC are moving to other places.”

Even worse, to an Online query of “What is orange county like?”, among the first Google entries has been a 2012 OC Weekly article titled, “Why Orange County is the Worst Effing Place in America.”<sup>258</sup> The story proclaims, “Fact is, we suck big time... We’ve covered the good and bad of our corner of Hell for nearly 17 years, and about the only reason I can give why we’re still around and haven’t left screaming for civilization is because we suffer from Stockholm syndrome.” (see Figure 55)

**WHEN YOU ASK WHAT IS IT LIKE TO LIVE IN OC,**  
This is what you  
get...



**Figure 55**

## WHAT IS OUR STORY AND OUR BRAND?

There are many Orange County organizations and initiatives for work-force and economic development, but no one leadership body or clear strategy. The communications from these groups lack engaging content, are poorly organized, and are visually outdated. There is no core message being communicated from the county. There is a need to develop a clear position and a story that aligns various OC groups, and the ways to convey it across key media channels.

Effective positioning can be executed via programs and policies that double down on the region’s strengths and rally stakeholders around common sentiments. New websites, logos, Online content, social media, and county-wide events can generate external awareness and internal engagement. The real need is to cut through the media noise being created by other regions, organizations, and institutions.

Rather than develop a laundry list of amenities that make Orange County a wonderful place to ‘live, work, and play,’ we should integrate our assets into a marketing plan that will shape favorable perceptions of the region.

To do this, OC leadership must first develop a comprehensive compilation of the region’s current brand identity – the set of cultural, economic, and civic associations that together make up its unique DNA. These characteristics must be integrated into an underlying messaging strategy.

Differentiation from nearby areas is key. As much as we benefit from our location near LA, any messaging that is broadly Southern California-oriented will tend to benefit our larger neighbor, home to many of the region’s most prominent

newspapers, radio stations and television stations. Our neighbor also happens to be the global center of the entertainment industry, and the primary focus for virtually all national and international coverage of the region.<sup>259</sup>

In this environment we cannot afford to sell ourselves as “plain vanilla”. As the group CEO for Cities has pointed out, people, particularly younger people, are not necessarily attracted to “homogenized environments.” They are looking for a place that has a “unique identity.” Fortunately, OC has unique, and, in some cases, unrivaled, assets.<sup>260</sup>

## CONCLUSION: OC’S NECESSARY FOURTH TRANSITION

This report was not written to make people comfortable. Life in OC, particularly for the affluent, can seem so good that there is natural tendency to downplay challenges. Yet, as we have shown, OC faces some intense competition, many times from areas that may not have our gifts, but offer lower costs or a more compelling story.

We need to prepare for a fourth major transition in the area’s evolution. The first was its transition from a rural area in the early twentieth century to a ‘bedroom community’ of Los Angeles in the 1950s. This was followed by a second shift, a rapid evolution into a post-suburban economic powerhouse, fueled largely by

below:  
**Aerospace Industry**



## SEVEN CORE STRATEGIES FOR ORANGE COUNTY TO ADVANCE VALUE PROPOSITION

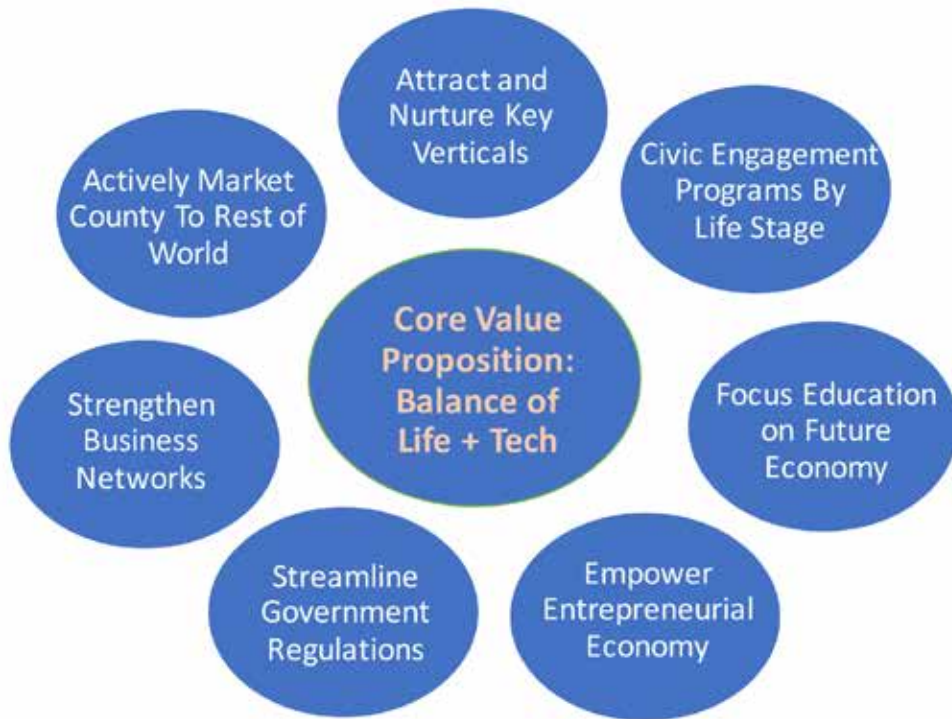


Figure 56

defense spending in the 1970s and 1980s, with an economy larger than half of the American states.<sup>261</sup>

In this period, many large companies moved their operations to the area, and many other fledgling firms became quite large. Then, we entered a third transition, in which we have seen many of our larger firms being bought up and their headquarters assets moved elsewhere.

Now, we are ready for a fourth transition into a new era; a metamorphosis into a more diverse, entrepreneur-driven economy, powered by smaller businesses largely in Pro-Tech, and by people who come or remain here primarily for its quality of life. It is this juxtaposition of our natural and our economic environments that represents what entrepreneur and author Charles D. Martin has called "the durable engine that will continue to propel the county forward."<sup>262</sup>

"The balance sheet of this place is ridiculous compared to anywhere else," suggests Mobility Ware's Jeff Erle. "We just don't take advantage of it."<sup>263</sup>

Stronger marketing and creating a stronger business voice will not be enough to make this new transition successful. Major continuing improvements in transportation, education and regulation remain critical. California state policy will likely inhibit some of these initiatives, as the state seeks to force family-friendly suburban areas to become denser and transit dependent.<sup>264</sup> To adopt this approach and diminish our largely low and moderate density environment could squander many of the advantages we offer to upwardly mobile families. Our county and local governments need to be vigilant in protecting OC for innovation to thrive, and innovative in addressing major environmental and social challenges through public-private partnerships.

Because it is a region with no defin-

able center and an array of cities with often sharply different characters, to succeed in this transition OC needs to pull in all its communities and their leaders. It is not enough to nurture growth and opportunity in just a few favored bastions, such as Irvine and Newport Beach. “We could not get our employees to go to Santa Ana and Anaheim,” one tech CEO confessed to us.<sup>265</sup> Too many areas in the county are being left behind, even if they may offer lower costs and more affordable housing for employees.

Orange County cannot reach its potential if only a few places thrive. Ultimately, unless addressed, a growing number of impoverished neighborhoods will impinge on the better positioned ones, creating conditions like gangs or homeless encampments which present safety and health problems, as well as a negative image of the entire county.<sup>266</sup>

As we collected data and opinions for this research, we heard from hundreds of Orange County residents, each of whom had their own vision of what the county should do to assure its future. Some of the ideas were highly impractical; others were quite achievable. Seven implementable, core strategies emerged as being important to almost everyone. The chart below depicts those strategies as an interconnected set of activities serving a common value proposition.

(see Figure 56)

This is a broad vision, one which plays to the inherent appeal of Orange County and sees its people as its greatest asset. This includes both those who live here now and those who might, if inspired, come here and contribute to our prosperity. Rather than mourn the passing of an old chapter, it is time to renew Orange County’s promise for all its residents.

*“The balance sheet  
of this place is ridiculous  
compared to anywhere else,...  
We just don’t take advantage of it.”*

1. Charles D. Martin, *Orange County, Inc.: The Evolution of an Economic Powerhouse* (Irvine: Chaney-Hall Publishing, 2016), p. 7.
2. Joel Kotkin and Marshall Toplansky, "OC Model: A Vision For Orange County's Future," *New Geography*, October 1, 2016, <http://www.newgeography.com/content/005405-oc-model-a-vision-orange-countys-future>.
3. Anil Puri and Mira Farka, "Sustainable Growth: Will the Expansion Continue? Economic Outlook and Forecasts: The Nation, Southern California and Orange County," *Cal State Fullerton Mihaylo College of Business and Economics*, 2018, <http://business.fullerton.edu/Center/EconomicAnalysisAndForecasting/assets/pdf/CSUF-Economic-Forecast-Report-Oct17.pdf>.
4. Jonathan Lansner, "Orange County jobs: 7 industries not hiring like they used to," *The Orange County Register*, September 14, 2017, <http://www.ocregister.com/2017/07/31/orange-county-jobs-7-industries-not-hiring-like-they-used-to/>.
5. "OC Community Indicators 2016," *Orange County Community Indicators Project*, p. 4-5; "Sustainable Growth: Will the Expansion Continue?"
6. "Construction Job Growth is Positive but Volatile," *Associated Equipment Distributors*, <http://aednet.org/construction-job-growth-is-positive-but-volatile/>; Margot Roosevelt, "Region's biggest job growth shifts inland from OC, LA," *Orange County Register*, October 21, 2017; <http://www.ocregister.com/2017/11/17/orange-county-bleeding-factory-jobs-while-food-hotel-jobs-are-up/>.
7. Betsy Baum Block, Henry Gascon, Peter Manzo, and Adam D. Parker, "Struggling to Get By: The Real Cost Measure in California 2015," *United Way*, <https://www.unitedwaysca.org/realcost>; "Homelessness And Poverty in Orange County," *Volunteer Network OC*, <https://www.volunteernetworkoc.org/homelessness-and-poverty-in-tkorange-county/>.
8. "California steals the No. 1 poverty state from Mississippi," *InlandEmpire.US*, October 10, 2017, <https://inlandempire.us/california-steals-no-1-poverty-state-mississippi/>.
9. Jeff Collins, "The high cost of housing drives O.C. poverty to nearly double the official rate, report says," *The Orange County Register*, April 30, 2015, <http://www.ocregister.com/articles/housing-659773-percent-county.html>.
10. "Scoring Tech Talent in North America 2017," *CBRE*, <https://www.cbre.us/research-and-reports/Scoring-Tech-Talent-2017>.
11. Tripp Mickle, "Apple's Breakthrough Product: Services," *The Wall Street Journal*, August 3, 2017, <https://www.wsj.com/articles/apples-breakthrough-product-services-1501688661>.
12. "Employment by major industry sector," *Bureau of Labor Statistics*, October 24, 2017, [https://www.bls.gov/emp/ep\\_table\\_201.htm](https://www.bls.gov/emp/ep_table_201.htm).
13. "OC Community Indicators 2016", p.6.
14. "Large Cities Business Services Jobs — 2017 Best Cities Rankings," *New Geography*, <http://www.newgeography.com/content/005673-large-cities-business-services-jobs-2017-best-cities-rankings>.
15. *Orange County, Inc.*, p. 279-307.

16. "2015 Otis Report On the Creative Economy", Prepared for Otis College of Art and Design by the Los Angeles County Economic Development Corporation, February 2016, [https://www.otis.edu/sites/default/files/2015-LA-Region-Creative-Economy-Report-Final\\_WEB.pdf](https://www.otis.edu/sites/default/files/2015-LA-Region-Creative-Economy-Report-Final_WEB.pdf); "The New Home Company Named Fastest Growing Public Company in Orange County," Business Wire, November 3, 2017, <http://www.businesswire.com/news/home/20171103005219/en/New-Home-Company-Named-Fastest-Growing-Public>.
17. David Kudas, "Technology and Retail: The Blend of Art and Science," The ExecRanks, October 9, 2017, <https://www.execrank.com/board-of-directors-articles/technology-and-retail-the-blend-of-art-and-science>.
18. Jed Kolko, "As Tech Hubs Tighten Their Gap, Where Is the Next Silicon Valley?" Indeed Hiring Lab, July 25, 2017, <http://www.hiringlab.org/blog/2017/07/25/next-silicon-valley/>.
19. "Light Rail: Is Orange County On The Right Track?" County of Orange California Grand Jury, 2015-2016, [http://www.ocgrandjury.org/pdfs/2015\\_2016\\_GJreport/2016-05-09\\_Website\\_Report.pdf](http://www.ocgrandjury.org/pdfs/2015_2016_GJreport/2016-05-09_Website_Report.pdf).
20. "Welcome to Silicon Valley South," Playa Vista, January 30, 2015, <http://playavista.com/welcome-silicon-valley-south/>.
21. Kevin Kane, "In Los Angeles, the geography of where people work has been experiencing rapid change," United States Politics and Policy, February 22, 2017, <http://eprints.lse.ac.uk/69718/1/blogs.lse.ac.uk-In%20Los%20Angeles%20the%20geography%20of%20where%20people%20work%20has%20been%20experiencing%20rapid%20change.pdf>.
22. Eliot Brown, "Districts Lifted by Tech Glitz," The Wall Street Journal, March 31, 2013, <https://www.wsj.com/articles/SB10001424127887323361804578390553920698138>.
23. 2017.5.24 Final Orange County BLC v14f\_PRESENTATION; Kelly Bennett, "The Rise and Sprawl of San Diego's Tech Hotspots," Voice of San Diego, July 3, 2013, <https://www.voiceofsandiego.org/neighborhoods/the-rise-and-sprawl-of-san-diegos-tech-hotspots/>; Patricia Kirk, "North County Is The San Diego Region's Hottest Industrial Market," Bisnow, August 10, 2017, <https://www.bisnow.com/san-diego/news/industrial/what-north-county-is-the-san-diego-regions-hottest-industrial-market-77601>.
24. "Tapestry Segmentation," ArcGIS, [http://doc.arcgis.com/en/esri-demographics/data/tapestry-segmentation.htm#ES-RI\\_2\\_D34B7970D92941D5A32339D6E31C29CE](http://doc.arcgis.com/en/esri-demographics/data/tapestry-segmentation.htm#ES-RI_2_D34B7970D92941D5A32339D6E31C29CE).
25. Nikelle Murphy, "The Rich Love to Live in These 10 U.S. Cities," Cheat Sheet, November 16, 2017, <https://www.cheatsheet.com/culture/top-us-cities-where-the-richest-people-live.html/?a=viewall>.
26. Jed Kolko, "Seattle Climbs but Austin Sprawls: The Myth of the Return to Cities," The New York Times, May 22, 2017, [https://www.nytimes.com/2017/05/22/upshot/seattle-climbs-but-austin-sprawls-the-myth-of-the-return-to-cities.html?\\_r=0](https://www.nytimes.com/2017/05/22/upshot/seattle-climbs-but-austin-sprawls-the-myth-of-the-return-to-cities.html?_r=0).
27. Richard Florida, "The Geography of Innovation," City Lab, August 3, 2017, <https://www.citylab.com/life/2017/08/the-geography-of-innovation/530349/>.
28. Sarah K. White, "The ten most expensive cities for hiring tech talent, CIO, August 8, 2017, <https://www.cio.com/article/3212835/hiring-and-staffing/the-10-most-expensive-cities-for-hiring-tech-talent.html>.
29. Interview with authors.
30. Makeda Easter, "The new Fortune 500 List is out. These California companies made the cut," Los Angeles Times, June 7, 2017, <http://beta.latimes.com/business/la-fi-fortune-500-california-20170607-story.html>.

31. *Orange County, Inc.* p. 106-7.
32. Interview with authors.
33. Kate Weidaw, "Google opens new downtown Austin office," *kxan*, September 19, 2017, <http://kxan.com/2017/09/19/google-opening-new-downtown-austin-office/>; Rachel Lerman, "Google plans big expansion in South Lake Union," *The Seattle Times*, March 25, 2016, <https://www.seattletimes.com/business/technology/google-plans-big-expansion-to-south-lake-union/>.
34. Don Reisinger, "Where Apple Has Quietly Built Its Biggest Campus," *Fortune*, September 2, 2016, <http://fortune.com/2016/09/01/apple-austin-campus/>.
35. "Jobs at Apple," Apple, [https://jobs.apple.com/us/search?jobType=1#location&t=1&sb=req\\_open\\_dt&so=1&lo=0\\*USA&pN=0](https://jobs.apple.com/us/search?jobType=1#location&t=1&sb=req_open_dt&so=1&lo=0*USA&pN=0).
36. "Peak Jobs," Amazon, <http://www.amazondelivers.jobs/peakjobs/>; Alain Sherter, "Amazon hiring a total of 120K workers in these states," *CBS News*, October 12, 2017, <https://www.cbsnews.com/news/amazon-jobs-hiring-120000-workers-for-holiday-season/>.
37. George Avalos, "Google, San Jose plan search giant's downtown expansion; up to 20,000 jobs possible," *The Mercury News*, January 15, 2018, <http://www.mercurynews.com/2017/06/06/google-san-jose-craft-search-giants-downtown-expansion/>; Tamara Chung, "Google says it has doubled Colorado employees since 2015 as it preps opening of new Boulder campus," *Denver Post*, May 11, 2017, <http://www.denverpost.com/2017/05/10/google-double-colorado-employees-boulder-campus/>; "Google plans big expansion in South Lake Union."
38. "The Bursting of Silicon Valley's Real Estate Bubble Has Now Spread to San Francisco," *Zero Hedge*, June 17, 2016, <http://www.zerohedge.com/news/2016-06-17/bursting-silicon-valleys-real-estate-bubble-has-now-spread-san-francisco>; Conor Sen, "The Numbers Show Silicon Valley Is Already Fading," *Bloomberg*, September 19, 2017, <https://www.bloomberg.com/view/articles/2017-09-19/the-numbers-show-silicon-valley-is-already-fading>.
39. Trisha Riggs, "ULI Report: Bay Area at Risk of Losing Millennials Due to Housing Costs, Quality of Life Concerns," *Urban Land Magazine*, October 7, 2015, <https://urbanland.uli.org/news/uli-report-bay-area-risk-losing-millennials-due-housing-costs-quality-life-concerns/>.
40. George Avalos, "Bay Area hammered by loss of 4,700 jobs," *The Mercury News*, October 24, 2017, <http://www.mercurynews.com/2017/10/20/san-jose-san-francisco-oakland-job-losses-hammer-bay-area-employers-slash-thousands-of-jobs/>.
41. "Too much of a good thing," *The Economist*, March 26, 2016, <https://www.economist.com/news/briefing/21695385-profits-are-too-high-america-needs-giant-dose-competition-too-much-good-thing>.
42. Ariel Ezrachi and Maurice E. Stucke, *Virtual Competition: The Promise and Perils of the Algorithm-Driven Economy* (Cambridge: Harvard University Press, 2016).

43. Sarah Frier and Jef Feeley, "Facebook's Investors Criticize Marc Andreessen for Conflict of Interest," Bloomberg, December 8, 2016, <https://www.bloomberg.com/news/articles/2016-12-08/facebook-s-investors-criticize-marc-andreessen-for-conflict-of-interest>; Georgia Wells, "Snap Falls Hard on Wider Loss," The Wall Street Journal, August 11, 2017, [http://online.wsj.com/public/resources/documents/print/WSJ\\_-B001-20170811.pdf](http://online.wsj.com/public/resources/documents/print/WSJ_-B001-20170811.pdf); Katie Benner, "In Snap Inc.'s Tumble, Start-Ups See a Waning From Wall Street," The New York Times, May 11, 2017, [https://www.nytimes.com/2017/05/11/technology/snap-public-company-start-ups.html?\\_r=0;m](https://www.nytimes.com/2017/05/11/technology/snap-public-company-start-ups.html?_r=0;m); Ev Ehrlich, "Neutrality for Thee, but Not for Google, Facebook, and Amazon," The Wall Street Journal, July 20, 2017, <https://www.wsj.com/articles/neutrality-for-thee-but-not-for-google-facebook-and-amazon-1500591612>.
44. Jillian D'Onfro, "Sergey Brin: Don't Come to Silicon Valley to start a business," Yahoo! Finance, June 24, 2016, <https://www.yahoo.com/finance/news/sergey-brin-dont-come-silicon-204107995.html>.
45. Justin Fox, "Where Stuff Gets Made in the U.S. of A," Bloomberg, July 3, 2017, <https://www.bloomberg.com/view/articles/2017-07-03/where-stuff-gets-made-in-the-usa>.
46. *Orange County, Inc.*, p.9, 31-33.
47. Enrico Moretti, "Are cities the new growth escalator?" World Bank, 2013, <http://documents.worldbank.org/curated/en/455521468148522294/Are-cities-the-new-growth-escalator>; Wolfgang Dauth, Sebastian Findeisen, Enrico Moretti Jens and Suedekum, "Spatial Wage Disparities – Workers, Firms, and Assortative Matching," The Society of Labor Economists, October 2016, p.22.
48. "Orange," University of Southern California, [http://dornsife.usc.edu/assets/sites/731/docs/ORANGE\\_web.pdf](http://dornsife.usc.edu/assets/sites/731/docs/ORANGE_web.pdf).
49. Jeff Collins, "Chinese homebuilder Landsea buys 569-house Lake Forest project ", Orange County Register, November 24, 2015, <https://www.ocregister.com/2015/11/24/chinese-homebuilder-landsea-buys-569-house-lake-forest-project/>.
50. Hannah Madans, "Orange County's biggest business deals of 2016: Foreign buyers snatch up Ingram Micro, Broadcom and more", Orange County Register, December 31, 2016, <https://www.ocregister.com/2016/12/30/orange-countys-biggest-business-deals-of-2016-foreign-buyers-snatch-up-ingram-micro-broadcom-and-more/>.
51. *Orange County, Inc.*, p. 167-168.
52. Dane Stangler and Jason Weins, "The Economic Case for Welcoming Immigrant Entrepreneurs," Kauffman Foundation, September 8, 2015, <http://www.kauffman.org/what-we-do/resources/entrepreneurship-policy-digest/the-economic-case-for-welcoming-immigrant-entrepreneurs>.
53. Margaret Summers, "Immigrant Entrepreneurs Take The Lead," Women's News, December 16, 2011, <http://womense-news.org/2011/12/immigrant-entrepreneurs-take-the-lead/>.
54. *Orange County, Inc.*, p. 115-118.
55. Interview with authors.
56. "OC Community Indicators 2016," p. 5.
57. Bill Oram, "You can be sitting 'courtside' at NBA games with virtual reality," Orange County Register, January 31, 2017, <https://www.ocregister.com/2017/01/31/you-can-be-sitting-courtside-at-nba-games-with-virtual-reality/>.
58. Lauren Weber, "In the \$75 Billion Videogame Industry, Hiring People Is a Last Resort," The Wall Street Journal, April 10, 2017, <https://www.wsj.com/articles/why-a-75-billion-business-is-getting-out-of-the-hiring-game-1491838235>.

59. Jeffrey Sparshott, "Big Growth in Tiny Businesses," *The Wall Street Journal*, December 28, 2016, <https://www.wsj.com/articles/big-growth-in-tiny-businesses-1482953786>; Conor Dougherty, "Bay Area Start-Ups Find Low-Cost Outposts in Arizona," *The New York Times*, August 21, 2016, <https://www.nytimes.com/2016/08/22/business/economy/bay-area-start-ups-find-low-cost-outposts-in-arizona.html?mtrref=www.google.com>.
60. "Sustainable Growth: Will the Expansion Continue?"
61. Ibid.
62. "2015 Otis Report On the Creative Economy."
63. "2017 State of Telecommuting in the U.S. Employee Workforce," Global Workplace Analytics and Flexjobs, [https://cdn.thepennyhoarder.com/wp-content/uploads/2017/06/30140000/State\\_Of\\_Telecommuting\\_U.S.\\_Employee\\_Workforce.pdf](https://cdn.thepennyhoarder.com/wp-content/uploads/2017/06/30140000/State_Of_Telecommuting_U.S._Employee_Workforce.pdf).
64. "Cottage Industries: True Neighborhood," City of Garden Grove, <https://www.ci.garden-grove.ca.us/city-files/cottage-industry-lab-low.pdf>.
65. Jenna L. Jones, "Is co-working the office of the future? WeWork brings millennial-driven concept to O.C.," *The Orange County Register*, June 13, 2016, <http://www.ocregister.com/2016/06/13/is-co-working-the-office-of-the-future-wework-brings-millennial-driven-concept-to-oc>.
66. "Scoring Tech Talent in North America 2017."
67. Interview with authors.
68. Michael Bernick, "Checking in Our Growing Gig Economy in California, 2017," *Fox & Hounds*, March 1, 2017, <http://www.foxandhoundsdaily.com/2017/03/checking-growing-gig-economy-california-2017/>.
69. Kim Slowey, "The future of the company town is high-tech and amenity-rich," *Construction Dive*, September 28, 2017, <https://www.constructiondive.com/news/the-future-of-the-company-town-is-high-tech-and-amenity-rich/505959/>.
70. Silicon Valley is not itself a statistically defined area. It has various geographical definitions, virtually all limited to the part or all of the San Francisco Bay area. Statistical comparisons in this report refer to the area most often associated with the Silicon Valley, the San Jose metropolitan area (Santa Clara and San Benito counties, which includes such well known technology centers as San Jose, Santa Clara, Sunnyvale, Mountain View and Palo Alto, the site of Stanford University).
71. Todd Gabe, *The Pursuit of Economic Development: Growing Good Jobs in U.S. Cities and States* (Basingstoke: Palgrave Macmillan, 2017), p. 115; Tanja Buch, Silke Hamann, Annetrin Niebuhr and Anja Rossen, "How to Woo the Smart Ones? Evaluating the Determinants that Particularly Attract Highly Qualified People to Cities," *Journal of Urban Affairs* 39, no. 6 (March 10, 2017): p. 764 – 782, <http://www.tandfonline.com/doi/abs/10.1080/07352166.2017.1282765>.
72. Neil O'Farrell, "How to attract people to your city (and it's not just about jobs)," *Economic Development.org*, April 21, 2015, <http://economicdevelopment.org/2015/04/how-to-attract-people-to-your-city-and-its-not-just-about-jobs/>.
73. "High School Graduates Completing College Preparatory Courses," *kidsdata.org*, <http://www.kidsdata.org/topic/103/collegeprep/Trend#fmt=186&loc=365,2&tf=1,84>.
74. Interview with authors.

75. Sharon Noguchi, "California schools' report card; C-minus," Press-Telegram, September 1, 2017, <http://www.presstelegram.com/2017/01/08/california-schools-report-card-c-minus/>; Craig Shultz, "Orange County graduation rate tops 90 percent; best in state for large counties," The Orange County Register, May 17, 2017, <http://www.ocregister.com/2017/04/11/californias-high-school-graduation-rate-keeps-rising-orange-county-tops-90/>; Chris Haire, "More than half of Orange County's students test proficient in English; not quite half in math," The Orange County Register, September 27, 2017, <http://www.ocregister.com/2017/09/27/more-than-half-of-orange-countys-students-test-proficient-in-english-not-quite-half-in-math/>.
76. "Regional Data," Bureau of Economic Analysis, <https://www.bea.gov/itable/iTable.cfm?ReqID=70&step=1#reqid=70&step=29&isuri=1&7022=101&7023=8&7024=non-industry&7001=8101&7090=70>.
77. *The Pursuit of Economic Development*, p.33, p.193.
78. The Los Angeles metropolitan area (which includes Orange County) was rated "severely unaffordable, with a median multiple of 9.3 in 2016. This is the 8th least affordable major housing market out of 92 in 9 nations that were rated in the *13th Annual Demographia International Housing Affordability Survey*.
79. Jonathan Lansner, "Lansner: Home affordability chasm between O.C., U.S. widens," The Orange County Register, February 27, 2016, <https://www.ocregister.com/2016/02/27/lansner-home-affordability-chasm-between-oc-us-widens/>.
80. "2015 Orange County Workforce Housing Scorecard," Orange County Business Council, <https://www.ocbc.org/wp-content/uploads/2015/03/2015-Housing-Scorecard-FINAL-PAGES-3.20.15-small.pdf>.
81. Margot Roosevelt, "Orange County's job engine continues to churn, adding 11,100 jobs in February," The Orange County Register, March 25, 2017, <http://www.ocregister.com/2017/03/25/orange-countys-job-engine-continues-to-churn-adding-11100-jobs-in-february/>.
82. Orange County Leadership Council, Center for Higher Ambition Leadership, Discussion Document, May 26, 2017.
83. Derek Miller, "Cities Where the Retiree Homeownership Rate Is Rising the Fastest," Smart Asset, March 3, 2017, <https://smartasset.com/mortgage/cities-where-retiree-homeownership-rate-is-rising-fastest>.
84. Interview with authors.
85. Interview with authors.
86. Orange County Leadership Council, Center for Higher Ambition Leadership, Discussion Document, May 26, 2017.
87. Ben Casselman, "Think Millennials Prefer The City? Think Again," FiveThirtyEight, March 20, 2015,, <https://fivethirtyeight.com/datalab/think-millennials-prefer-the-city-think-again/>; See: <https://www2.census.gov/programs-surveys/demo/tables/geographic-mobility/2017/cps-2017/tab14-3.xls>. This data likely understates the extent to which the cohort is leaving core cities for the suburbs. "Principal cities," which have replaced "central cities" in Office of Management and Budget determined metropolitan definitions. Municipalities such as Irvine and Tustin are designated as principal cities because of their large employment bases and do not achieve the high residential densities commonly associated with core municipalities.
88. Kris Hudson, "Generation Y Prefers Suburban Home Over City Condo," The Wall Street Journal, January 21, 2015, <https://www.wsj.com/articles/millennials-prefer-single-family-homes-in-the-suburbs-1421896797>.

89. Interviews with authors.
90. Interview with authors.
91. Gretchen Livingstone, "More than a million Millennials are becoming moms each year," Pew Research Center, January 3, 2017, <http://www.pewresearch.org/fact-tank/2017/01/03/more-than-a-million-millennials-are-becoming-moms-each-year/>.
92. Interview with authors.
93. "Sustainable Growth: Will the Expansion Continue?"
94. Estimated by the number of foreign born residents entering the US between from 2010 to 2016.
95. "OC Community Indicators 2017," Orange County Community Indicators Project, [http://www.ochealthiertogether.org/content/sites/ochca/Local\\_Reports/OC\\_Community\\_Indicators\\_2017.pdf](http://www.ochealthiertogether.org/content/sites/ochca/Local_Reports/OC_Community_Indicators_2017.pdf); Joel Kotkin and Wendell Cox, "The Evolving Geography of Asian America: Suburbs Are New High-Tech Chinatowns," *Forbes*, March 18, 2015, <https://www.forbes.com/sites/joelkotkin/2015/03/18/the-evolving-geography-of-asian-america-suburbs-are-new-high-tech-chinatowns/#792776656f7a>.
96. Anh Do, "Even with Irvine's diverse mix of cultures, some residents feel they don't 'fit,'" *Los Angeles Times*, May 30, 2017, <http://www.latimes.com/local/california/la-me-ln-irvine-immigrants-20170511-htmstory.html>.
97. Ali Modarres, "Re-examining Race and Ethnicity in Suburbs", in *Infinite Suburbia*, Alan M. Berger and Joel Kotkin editors, (New York: Princeton Architectural Press, 2017), p. 134-145.
98. Orange County Roundtable, Ethnic Impact Observations, May 2017; Immigrants are 42 percent of California's STEM workforce," *The Mercury News*, July 16, 2017, <http://www.mercurynews.com/2017/07/14/immigrants-are-42-percent-of-californias-stem-workforce/>.
99. "Demographics — Headcount by Gender and Ethnicity," California State University, Fullerton, <http://www.fullerton.edu/analyticalstudies/facts/demographics.php>; "New Undergraduate Student Profiles," Chapman University, <https://webfarm.chapman.edu/datamart-reports/new-ug-student-profiles.asp?r=e>.
100. Interview with authors.
101. Northgate Market, [http://www.northgatemarkets.com/?utm\\_source=GOOGLE&utm\\_medium=cpc&utm\\_term=&utm\\_campaign=Brand%20%20Exact](http://www.northgatemarkets.com/?utm_source=GOOGLE&utm_medium=cpc&utm_term=&utm_campaign=Brand%20%20Exact); *Orange County*, Inc., p.339.
102. Tyler Cowen, "The Unseen Threat to America: We Don't Leave Our Hometowns," *Time*, February 22, 2017, <http://time.com/4677919/tyler-cowen-book/>; Richard Fry, "Americans are moving at historically low rates, in part because millennials are staying put," Pew Research Center, February 13, 2017, <http://www.pewresearch.org/fact-tank/2017/02/13/americans-are-moving-at-historically-low-rates-in-part-because-millennials-are-staying-put/>; Jonathan Lansner, "California: The state where people don't move," *The Orange County Register*, May 7, 2017, <http://www.ocregister.com/2017/05/07/california-the-state-where-people-dont-move/>.
103. Derived from 2000 Census and American Community Survey 2015.

104. "OC Community Indicators Report 2017"; "Orange County Workforce Indicators Report 2016 and 2017," <http://www.ocwib.org/civicax/filebank/blobdload.aspx?BlobID=58665>; Margot Roosevelt, "Orange County is bleeding better-paying factory jobs," The Orange County Register, November 17, 2017, <http://www.ocregister.com/2017/11/17/orange-county-bleeding-factory-jobs-while-food-hotel-jobs-are-up/>; Genine Wilson, "California's uphill climb in filling skilled-worker jobs," The Orange County Register, May 25, 2017, <http://www.ocregister.com/2017/05/25/california-as-uphill-climb-in-filling-skilled-worker-jobs/>.
105. Interview with authors.
106. This measure adjusts for rents, but not for the costs of owned housing, which would likely make the differences even larger. See: Wendell Cox, "The Center for Opportunity Urbanism (COU) Standard of Living Index 2nd Annual Edition," December 2017, <http://opportunityurbanism.org/wp-content/uploads/2017/11/2017-cou-std-of-living-index.pdf>.
107. Josie Huang, "California's housing costs are driving its No. 1 poverty ranking," Southern California Public Radio, September 12, 2017, <http://www.scpd.org/news/2017/09/12/75575/california-s-housing-costs-are-driving-its-no-1-po/home>.
108. "The growing underclass of the Orange County bubble: You need to earn an hourly wage of \$28 to afford a basic one-bedroom apartment but 68 percent of OC jobs pay less than that amount," Dr. Housing Bubble, July 31, 2017, <http://www.doctorhousingbubble.com/orange-county-real-estate-growing-underclass-income-to-own-affordable-housing/>.
109. "Struggling to Get By: The Real Cost Measure in California 2015."
110. Jed Kolko, "America's Most Unequal Metros," Trulia, March 12, 2014, <https://www.trulia.com/blog/trends/america-s-most-unequal-metros/>.
111. Nicole Suydam and Mark Lowry, "No one should go hungry in Orange County," The Orange County Register, September 17, 2017, <http://www.ocregister.com/2017/09/17/314689/>.
112. "No one should go hungry in Orange County."
113. "Children Living in Crowded Households, by County (65,000 Residents or More)," kidsdata.org, <http://www.kidsdata.org/topic/721/crowded-housing65/table#fmt=1022&loc=365&tf=79&sortColumnId=0&sortType=asc>.
114. "HUD's 2013 Continuum of Care Homeless Assistance Programs Homeless Populations and Subpopulations," U.S. Department of Housing and Urban Development, April 17, 2017, <https://www.211oc.org/reports/point-in-time.html>.
115. Hannah Fry, "Hidden underground bunker, tunnel with 1,000 bikes found in homeless encampment," Los Angeles Times, November 18, 2017, <http://www.latimes.com/local/lanow/la-me-oc-homeless-found-20171118-story.html>.
116. David Whitting, "Santa Ana River Trail walkers, cyclists fear homeless, give up outdoor 'jewel,'" The Orange County Register, July 20, 2017, <http://www.ocregister.com/2017/07/19/santa-ana-river-trail-walkers-cyclists-fear-homeless-give-up-outdoor-jewel/>.
117. Jeong Park, "Growing homeless population in Garden Grove's Little Seoul has led to increased frustration among Korean business owners," The Orange County Register, August 26, 2017, <http://www.ocregister.com/2017/08/25/growing-homeless-population-in-garden-groves-little-seoul-has-led-to-increased-frustration-among-korean-business-owners/>.

118. David A. Snow and Rachel E. Goldberg, "Homelessness in Orange County: The Costs To Our Community," United Way, 2017, <https://www.unitedwayoc.org/wp-content/uploads/2017/08/united-way-cost-study-homelessness-2017-report.pdf>.
119. Interview with authors.
120. "Making KC America's Most Entrepreneurial City: Year 4," KCSourceLink, [http://www.kcsourcelink.com/docs/default-source/default-document-library/kcs\\_wecreatereport\\_2017\\_lr.pdf?sfvrsn=4](http://www.kcsourcelink.com/docs/default-source/default-document-library/kcs_wecreatereport_2017_lr.pdf?sfvrsn=4); <https://www.dallasecodev.org/344/Workforce-Development>; <http://www.businesswire.com/news/home/20170419006080/en/Dallas-Regional-Chamber-Targets-National-Millennial-Workforce> ; "Dallas Regional Chamber Targets National Millennial Workforce with New Talent Attraction Campaign, Say Yes to Dallas, Business Wire, April 19, 2017, [http://www.nctcog.org/edo/docs/CEDS\\_Draft.pdf](http://www.nctcog.org/edo/docs/CEDS_Draft.pdf); Bill King, "Comprehensive Economic Development Strategy for the North Central Texas Region," North Central Texas Council of Governments, February 15, 2016, [http://www.nctcog.org/CEDS/docs/NCTCOG\\_CEDS.pdf](http://www.nctcog.org/CEDS/docs/NCTCOG_CEDS.pdf); "Comprehensive Economic Development Strategy 2012 -2017," Greater Nashville Regional Council, September 28, 2012, <https://www.gnrc.org/wp-content/uploads/2013/01/FY-2012-CEDS-FINAL-SUMMITAL-TO-EDA-2012-0928.pdf>; "A General Plan for Nashville & Davidson County," Nashville Next, June 22, 2015, <http://www.nashville.gov/Portals/0/SiteContent/Planning/docs/NashvilleNext/PlanVolumes/next-volume4-Actions.pdf>; "Our Action Plan," Seattle Economic Development Commission, <http://seattleedc.com/initiatives/>.
121. Elsie Echeverri-Carroll, "Austin's Entrepreneurial Genesis in a Nutshell," The University of Texas at Austin, September 1, 2017, <http://ic2.utexas.edu/ic2-prod/wp-content/uploads/echeverri-2017-austin-entrepreneurial-genesis-report.pdf>.
122. "Strategic Recommendations Opportunity Austin 3.0 Mid-Course Assessment," Austin Chamber, September 15, 2016, <https://www.austinchamber.com/upload/files/OA-3.0-Mid-Course-Strategic-Recommendations.pdf>; "Resetting the Intelligence Economy," City of Austin Economic Development Department, 2016, [https://www.austintexas.gov/sites/default/files/files/EGRSO/EDD\\_Strategic\\_Economic\\_Plan\\_2016\\_APPENDICES.pdf](https://www.austintexas.gov/sites/default/files/files/EGRSO/EDD_Strategic_Economic_Plan_2016_APPENDICES.pdf)
123. Gordon F. Mulligan, "Book Review: The Rise and Fall of Urban Economies: Lessons From San Francisco and Los Angeles" *Economic Development Quarterly* 30, no. 3 (July 20, 2016), <http://journals.sagepub.com/doi/pdf/10.1177/0891242416654593>.
124. Interview with authors.
125. Nat Levy, "Facebook-owned Oculus makes big hiring push in Seattle region amid rumors of real estate expansion," Geek Wire, November 20, 2017, <https://www.geekwire.com/2017/facebook-owned-oculus-makes-big-hiring-push-seattle-region-amid-rumors-real-estate-expansion/>.
126. Connect, <https://www.connect.org/>.
127. "The Economic Input of San Diego's Research Institutions: Driving San Diego's Innovation Economy," San Diego Regional Economic Development Corporation, Fall 2015, [http://www.ucop.edu/innovation-alliances-services/\\_files/Econ%20Impact%20Rpts/San%20Diego%20Research%20Institutes%20Econ%20Impact%202015.pdf](http://www.ucop.edu/innovation-alliances-services/_files/Econ%20Impact%20Rpts/San%20Diego%20Research%20Institutes%20Econ%20Impact%202015.pdf).
128. Chris Jennewein, "San Diego Counts Record 477 New Tech Startups with \$700 Million Financing," Times of San Diego, August 3, 2017, <https://timesofsandiego.com/business/2017/08/03/san-diego-counts-record-477-new-tech-startups-with-700-million-financing>; "San Diego Innovation Report," Connect, 2016, [http://live-connect-site.pantheonsite.io/sites/default/files/2016\\_INNOVATION\\_REPORT\\_FINAL.pdf](http://live-connect-site.pantheonsite.io/sites/default/files/2016_INNOVATION_REPORT_FINAL.pdf).
129. Interview with authors.

130. Interview with authors.
131. Location OC, <http://www.locationoc.com/>; "Innovation," Orange County Business Council, <http://www.ocbc.org/ocbc-initiatives/economic-development/business-attraction-and-retention/>; "Comprehensive Economic Development Strategy (CES)," Orange County Community Investment Division, <http://www.ocwib.org/ceds>.
132. "2016 Annual Impact Report," OCTANe, February 1, 2017, <http://www.octaneoc.org/wp-content/uploads/2017/08/OCTA-15815-Annual-Impact-Report-r41.pdf>; Jonathan Lansner, "Guess who holds the world's 3rd largest real estate fortune? Yup, he's from O.C.," The Orange County Register, March 7, 2016, <http://www.ocregister.com/2016/03/07/guess-who-holds-the-worlds-3rd-largest-real-estate-fortune-yup-hes-from-oc/>.
133. Interview with authors.
134. Aaron Chatterji, Edward L. Glaeser and William R. Kerr, "Clusters of Entrepreneurship and Innovation" *The National Bureau of Economic Research Working Paper* No. 19013, May 2013, <http://www.nber.org/papers/w19013>; Natalie Cohen, "Business Location Decision-Making and the Cities: Bringing Companies Back," The Brookings Institution, April 2000, <https://www.brookings.edu/wp-content/uploads/2016/06/cohen-1.pdf>.
135. Scott Cohn, "America's Top States for Business over the last 10 years," CNBC, July 15, 2016, <https://www.cnbc.com/2016/07/13/best-us-states-doing-business-over-the-last-10-years.html>.
136. Margot Roosevelt, "How California convinced Orange County-based Yamaha of America to stay," The Orange County Register, December 5, 2016, <http://www.ocregister.com/2016/12/05/how-california-convinced-orange-county-based-yamaha-of-america-to-stay/>.
137. Ian Wheeler, "10 years of change: What new census says about 20 Southern California cities," The Orange County Register, September 18, 2017, <http://www.ocregister.com/2017/09/14/10-years-of-change-what-new-census-says-about-20-southern-california-cities/>; Interview with Charlie Stephens.
138. 2015 Orange County Workforce Housing Scorecard, Orange County Business Council.
139. "Investing in Place: Two Generations' View on the Future of Communities," American Planning Association, <https://www.planning.org/policy/polls/investing/>; "Investing in Place," American Planning Association, May 2014, [https://planning-org-uploaded-media.s3.amazonaws.com/legacy\\_resources/policy/polls/investing/pdf/pollinvestingreport.pdf](https://planning-org-uploaded-media.s3.amazonaws.com/legacy_resources/policy/polls/investing/pdf/pollinvestingreport.pdf)
140. Interview with authors and researcher Charlie Stephens.
141. Jon Kamp and Scott Calvert, "Cities Restore Lost Streets, Local Charm After Razing Failed Malls," The Wall Street Journal, March 20, 2017, <https://www.wsj.com/articles/cities-restore-lost-streets-local-charm-after-razing-failed-malls-1490011203?emailToken=JRyd/55YHqfi9I8asw31UEpY7JNEeKSWITNITXOPVPQ8WfJu%2B%2Bs2-75wg9y8qGfqTzZ/dVB5mAjSCeUmmN4Xcme3rB2kFOpdzxYp5XAykjSZhWDxBfTJ7JH>.
142. 4th Street Market, <http://www.4thstreetmarket.com/>; Nancy Luna, "A guide to Orange County's next food halls: TRADE, McFadden Public Market and Square Mixx," The Orange County Register, April 20, 2017, <http://www.ocregister.com/2017/04/17/a-guide-to-orange-countys-next-food-halls-trade-mcfadden-public-market-and-square-mixx/>.
143. Jonathan Winslow, "Orange planning standards to keep its 350 Eichler homes preserved," The Orange County Register, September 19, 2017, <https://www.ocregister.com/2017/09/19/orange-planning-standards-to-keep-its-350-eichler-homes-preserved/>.

144. Brian Whitehead, "Buena Park, Anaheim, Stanton gain momentum drawing investment to decayed Beach Boulevard," *The Orange County Register*, October 26, 2017, <http://www.ocregister.com/2017/10/26/buena-park-anaheim-stanton-gain-momentum-drawing-investment-to-decayed-beach-boulevard/>.
145. Chris Kirkham, "Suburbs Trying to Attract Millennials Diverge on Development Patterns," *The Wall Street Journal*, August 26, 2016, <https://www.wsj.com/articles/suburbs-trying-to-attract-millennials-diverge-on-development-patterns-1472251218>; Tomoya Shimura, "Welcome to the agrihood: Farms are shared in these Rancho Mission Viejo communities," *The Orange County Register*, November 13, 2015, <http://www.ocregister.com/2015/11/13/welcome-to-the-agrihood-farms-are-shared-in-these-rancho-mission-viejo-communities/>; Paul Hodgins, "How Costa Mesa became Orange County's capital of cool," *The Orange County Register* March 17, 2017, <http://www.ocregister.com/2017/04/28/how-costa-mesa-became-orange-countys-capital-of-cool/>.
146. Mark Heschmeyer, "Investors Still Willing to Bet Big on Mall Turnarounds, Even at Those Hit by Triple Anchor Closures," *CoStar*, March 30, 2017, <http://www.costar.com/News/Article/Investors-Still-Willing-to-Bet-Big-on-Mall-Turnarounds-Even-at-Those-Hit-by-Triple-Anchor-Closures/189835>.
147. Nancy Luna, "Ready for a culinary walkabout? Anaheim Packing House is here," *The Orange County Register*, May 29, 2014, <http://www.ocregister.com/articles/food-615860-anaheim-shop.html>.
148. "The South Coast Repertory Story," *South Coast Repertory*, <https://www.scr.org/about/the-scr-story>; "Segerstrom Center for the Arts," <https://www.travelcostamesa.com/play/attractions/segerstrom-center-for-the-arts/>; Edward L. Glaeser, Jed Kolko, and Albert Saiz, "Consumer City," *Harvard Institute of Economic Research*, June 2000, [http://scholar.harvard.edu/files/glaeser/files/consumer\\_city.pdf](http://scholar.harvard.edu/files/glaeser/files/consumer_city.pdf); "Orange County School of the Arts," *Niche*, <https://www.niche.com/k12/orange-county-school-of-the-arts-santa-ana-ca/>.
149. "Bringing Home to Work: 'Resimercial' office products dominate at NeoCon," *Trendway*, June 25, 2017, <https://www.trendway.com/news/bringing-home-work-resimercial-office-products-dominate-neocon/>.
150. Deanna Arteaga, "If You Want Millennial Employees, Then Build a Millennial Office," *Accounting Web*, February 6, 2015, <https://www.accountingweb.com/practice/practice-excellence/if-you-want-millennial-employees-then-build-a-millennial-office>.
151. Erika I. Ritchie, "Renovation begins on Laguna Hills Mall," *The Orange County Register*, August 5, 2016, <http://www.ocregister.com/2016/08/05/renovation-begins-on-laguna-hills-mall/>.
152. Margot Roosevelt, "How will Orange County cities and malls confront 'e-trail' revolution as tax revenues decline?" *The Orange County Register*, October 10, 2017, <http://www.ocregister.com/2017/07/23/how-will-orange-county-cities-and-malls-confront-e-trail-revolution-as-tax-revenues-decline/>.
153. Carsten Foertsch, "More Than One Million People Will Work in Coworking Spaces in 2017," *deskmag*, January 25, 2017, <http://www.deskmag.com/en/the-complete-2017-coworking-forecast-more-than-one-million-people-work-from-14000-coworking-spaces-s>; "Coworking Forecast - 26,000 Spaces and 3.8 Million Members by 2020," *Small Business Labs*, August 2, 2016, <http://www.smallbizlabs.com/2016/08/coworking-forecast-44-million-members-in-2020.html>.
154. Interview with Taylor Patterson (Director of Public Affairs at WeWork) by Charlie Stephens; Sandy Mazza, "LA's coastal co-working culture is swapping out the corner suite for the cozy community lounge," *The Orange County Register*, November 13, 2017, <http://www.ocregister.com/2017/11/03/las-coastal-co-working-culture-is-swapping-out-the-corner-suite-for-the-cozy-community-lounge/>.

155. Erik Dolan-Del Vecchio, "No Longer Just Startups: Fortune 500 Companies Are Taking Co-Working Leases," BisNow, February 22, 2016, <https://www.bisnow.com/national/news/office/co-working-is-going-corporate-56263>.
156. The Press, <http://thepressoc.com/>.
157. Interview with researcher Charlie Stephens.
158. Erik Dolan-Del Vecchio, "Suburban Markets Are Seeing An Influx of Co-Working Space," BisNow, June 19, 2017, <https://www.bisnow.com/national/news/office/co-working-trend-finds-suburban-success-75730>; Pooja Makhijani, "Why Co-Working Is Moving to the Suburbs," CityLab, December 30, 2016, <https://www.citylab.com/life/2016/12/why-coworking-is-moving-to-the-suburbs/511742/>.
159. Nicole DuPuis, Brooks Rainwater, and Elias Stahl, "The Future of Work In Cities," National League of Cities, 2016, <http://www.nlc.org/sites/default/files/2016-12/The%20Future%20of%20Work%20in%20Cities%20Report.pdf>.
160. "2015 Otis Report On the Creative Economy."
161. The journey-to-work is obviously important for economic reasons. But on a more basic level, journey-to-work times are an important measure of mobility, because the peak period travel demand, and traffic congestion that occurs is largely the result of the higher concentration of work trips during these periods. Thus, if people are getting to work more quickly, it is likely that other passenger and freight trips are faster as well; Wendell Cox, "Traffic Congestion, Time, Money & Productivity," New Geography, September 18, 2009, <http://www.newgeography.com/content/001044-traffic-congestion-time-money-productivity>.
162. American Community Survey 2016.
163. Calculated from 1990 US Census and American Community Survey 2016.
164. From 2016 American Community Survey.
165. "Light Rail: Is Orange County On The Right Track?" County of Orange California Grand Jury 2015-2016, [http://www.ocgrandjury.org/pdfs/2015\\_2016\\_GJreport/2016-05-09\\_Website\\_Report.pdf](http://www.ocgrandjury.org/pdfs/2015_2016_GJreport/2016-05-09_Website_Report.pdf).
166. Joel Kotkin and Wendell Cox, "The Great Train Robbery: Urban Transportation in the 21st Century," Center for Demographics and Policy, 2017, [https://www.chapman.edu/wilkinson/\\_files/cdp-transit-web-sm.pdf](https://www.chapman.edu/wilkinson/_files/cdp-transit-web-sm.pdf).
167. Chris Kirkham and Cameron McWhirter, "L.A.'s Costly Bet on Curbing Car Culture," The Wall Street Journal, May 22, 2016, <https://www.wsj.com/articles/las-costly-bet-on-curbing-car-culture-1463961060>.
168. "The Great Train Robbery."
169. Steven Greenhut, "ARTIC's fiscal tundra is preview of other boondoggles," The Orange County Register, April 23, 2017, <http://www.ocregister.com/2017/04/23/artics-fiscal-tundra-is-preview-of-other-boondoggles/>; Gustavo Arellano, "Meet ARTIC, Anaheim's \$188 Million Station to Nowhere," OC Weekly, December 17, 2014, <http://www.ocweekly.com/news/meet-artic-anaheims-188-million-station-to-nowhere-6479600>.
170. Wendell Cox, "Transit Work Access in 2016: Working at Home Gains," New Geography, October 7, 2017, <http://www.newgeography.com/content/005761-transit-work-access-2016-working-home-gains>.
171. Ibid.

172. "An Integrated Perspective on the Future of Mobility," McKinsey & Company, October 2016, [https://www.bbhub.io/bnef/sites/4/2016/10/BNEF\\_McKinsey\\_The-Future-of-Mobility\\_11-10-16.pdf](https://www.bbhub.io/bnef/sites/4/2016/10/BNEF_McKinsey_The-Future-of-Mobility_11-10-16.pdf).
173. Emma G. Fitzsimmons, "Subway Ridership Declines in New York. Is Uber to Blame?" *New York Times*, February 23, 2017, <https://www.nytimes.com/2017/02/23/nyregion/new-york-city-subway-ridership.html>; Laura J. Nelson and Dan Weikel, "Billions spent, but fewer people are using public transportation in Southern California," *Los Angeles Times*, January 27, 2016, <http://www.latimes.com/local/california/la-me-ridership-slump-20160127-story.html>.
174. Baruch Feigenbaum, "Southern California's transit agencies need to evolve," *The Orange County Register*, July 30, 2017, <http://www.ocregister.com/2017/07/30/southern-californias-transit-agencies-need-to-evolve/>; Fred Swegles, "San Clemente partners with Lyft to fill gaps after 2 OCTA bus routes end," *The Orange County Register*, October 5, 2016, <http://www.ocregister.com/2016/10/05/san-clemente-partners-with-lyft-to-fill-gaps-after-2-octa-bus-routes-end/>.
175. Priya Anand, "People in Los Angeles Are Getting Rid Of Their Cars," *Buzzfeed*, September 2, 2016, [https://www.buzzfeed.com/priya/people-in-los-angeles-are-getting-rid-of-their-cars?utm\\_term=.xh4obLP20D#uhxJ2XkZ36](https://www.buzzfeed.com/priya/people-in-los-angeles-are-getting-rid-of-their-cars?utm_term=.xh4obLP20D#uhxJ2XkZ36); James La Belle and Sheena Freve, "Increasing Mobility Through Enhanced Transit Connectivity," *The Urban Transportation Center at the University of Illinois at Chicago*, August 15, 2016, p. 38; John Zimmer, "The Road Ahead," *Medium*, September 18, 2016, <https://medium.com/@johnzimmer/the-third-transportation-revolution-27860f05fa91>.
176. Tom Simonite, "Prepare to be Underwhelmed by 2021's Autonomous Cars," *MIT Technological Review*, August 23, 2016, <https://www.technologyreview.com/s/602210/prepare-to-be-underwhelmed-by-2021s-autonomous-cars/>; Chris Martin and Joe Ryan, "Super-Cheap Driverless Cabs to Kick Mass Transit to the Curb," *Bloomberg*, October 25, 2016, <https://www.bloomberg.com/news/articles/2016-10-24/super-cheap-driverless-taxis-may-kick-mass-transit-to-the-curb>.
177. Karen Harris, Andrew Schwedel and Austin Kimson, "Spatial Economics: The Declining Cost of Distance," *Bain & Company*, February 10, 2016, <http://www.bain.com/publications/articles/spatial-economics-the-declining-cost-of-distance.aspx>.
178. Christopher Mims, "Driverless Cars to Fuel Suburban Sprawl," *The Wall Street Journal*, June 20, 2016, <https://www.wsj.com/articles/driverless-cars-to-fuel-suburban-sprawl-1466395201>; "Spatial Economics"; Luz Lazo, "Uber Flirts with Transit Agencies Across the US for a Share of Paratransit Services," *The Washington Post*, March 5, 2016, [https://www.washingtonpost.com/local/trafficandcommuting/uber-flirts-with-transit-agencies-across-the-us-for-a-share-of-paratransit-services/2016/03/05/5eb8b118-d751-11e5-9823-02b905009f99\\_story.html?utm\\_term=.6cbc4b1406de](https://www.washingtonpost.com/local/trafficandcommuting/uber-flirts-with-transit-agencies-across-the-us-for-a-share-of-paratransit-services/2016/03/05/5eb8b118-d751-11e5-9823-02b905009f99_story.html?utm_term=.6cbc4b1406de).
179. Henry Grabar, "Bill Gates' Smart City in Arizona Is Not Smart, Not a City, and Has Little to Do With Bill Gates," *Slate*, November 14, 2017, <https://slate.com/business/2017/11/bill-gates-smart-city-in-arizona-is-not-smart-not-a-city-and-has-almost-nothing-to-do-with-bill-gates.html>.
180. Alan Hess, "Discovering Irvine," *Places Journal*, October 2014, <https://placesjournal.org/article/discovering-irvine/>; Adriana Pop, "Orange County's Investor Appeal," *Yardi Matrix*, Summer 2017, file:///C:/Users/Admin/Downloads/MetroOutlook2017-3-OrangeCounty.pdf.

181. Ibid.
182. "Foreign investors in Southern California: Over half of new homes in Irvine purchased by Asian buyers. SoHo China CEO reluctant on buying overseas real estate. AirBnB and VRBO Irvine rentals," Dr. Housing Bubble, October 6, 2015, <http://www.doctorhousingbubble.com/irvine-foreign-money-cash-real-estate-stonegate-cemetery-great-park/>; John Gittelsohn, "Chinese Cash-Bearing Buyers Drive U.S. Foreign Sales Jump," Bloomberg, July 9, 2014, <https://www.bloomberg.com/news/articles/2014-07-08/chinese-cash-bearing-buyers-drive-u-s-foreign-sales-jump>.
183. Jeff Collins, "Will the 21,500-home Newhall Ranch project be California's greenest development?" The Orange County Register, December 4, 2017, <http://www.ocregister.com/2017/12/03/work-begins-on-21500-home-project-with-ambitious-goals-to-combat-climate-change/>; Greg Mellen, "Don the Beachcomber a rallying cry in Sunset Beach fight to keep 'funkiness,'" The Orange County Register, July 7, 2015, <http://www.ocregister.com/2015/07/07/don-the-beachcomber-a-rallying-cry-in-sunset-beach-fight-to-keep-funkiness/>; Anthony Clark Carpio, "H.B. approves development guidelines for Sunset Beach," Los Angeles Times, November 18, 2015, <http://www.latimes.com/socal/hb-independent/news/tn-hbi-me-1119-sunset-coastal-program-20151118-story.html>; Hillary Davis, "Banning Ranch landowner seeks to drop suit against Coastal Commission," Los Angeles Times, December 15, 2017, <http://www.latimes.com/socal/daily-pilot/news/tn-dpt-me-banning-ranch-lawsuit-20171215-story.html>.
184. Hayley Peterson, "The retail apocalypse has officially descended on America," Business Insider, March 21, 2017, <http://www.businessinsider.com/the-retail-apocalypse-has-officially-descended-on-america-2017-3>.
185. Alan Semuels, "A New Life for Dead Malls," The Atlantic, March 9, 2015, <http://www.theatlantic.com/business/archive/2015/03/a-new-life-for-dead-malls/387001/>.
186. Michael Corkery, "Is American Retail at a Historic Tipping Point?" The New York Times, April 15, 2017, [https://www.nytimes.com/2017/04/15/business/retail-industry.html?\\_r=0](https://www.nytimes.com/2017/04/15/business/retail-industry.html?_r=0); Esther Fung, "Mall Owners Rush to Get Out of the Mall Business," The Wall Street Journal, January 24, 2017, <https://www.wsj.com/articles/mall-owners-rush-to-get-out-of-the-mall-business-1485262801?mg=prod/accounts-wsj>.
187. Paul Hodgins, "Far from the freeways in Huntington Beach, can Pacific City draw crowds to O.C.'s newest alterna-mall?" The Orange County Register, October 29, 2015, <http://www.ocregister.com/2015/10/29/far-from-the-freeways-in-huntington-beach-can-pacific-city-draw-crowds-to-ocs-newest-alterna-mall/>; Brittany Woolsey, "Bungalow bar brings a beach-house vibe to Pacific," Los Angeles Times, August 31, 2016 <http://www.latimes.com/socal/hb-independent/news/tn-hbi-me-bungalow-20160831-story.html>; "The Residences at Pacific City," UDR, <https://www.udr.com/orange-county-apartments/huntington-beach/the-residences-at-pacific-city/>; Pasea Hotel & Spa, <http://meritagecollection.com/paseahotel/>.
188. "How will Orange County cities and malls confront "e-trail" revolution as tax revenues decline?"; "The Lee Retail Brief," Lee & Associates, 2017, [https://issuu.com/leecorporate/docs/q1\\_2017\\_retail\\_brief?e=27238928/48568187](https://issuu.com/leecorporate/docs/q1_2017_retail_brief?e=27238928/48568187); Jim Tortolano, "Time for Act Two at the malls?" Orange County Tribune, August 17, 2016, <https://orangecountytribune.com/2016/08/17/time-for-act-two-at-the-malls/>; Hannah Madans, "Jump on it: Sky Zone opens at Westminster Mall," The Orange County Register, May 12, 2016, <http://www.ocregister.com/2016/05/12/jump-on-it-sky-zone-opens-at-westminster-mall/>.
189. Hannah Madans, "Re-reviving Garden Walk: Will House of Blues and more restaurants save Anaheim retail center?" The Orange County Register, February 15, 2016, <http://www.ocregister.com/2016/02/15/re-reviving-gardenwalk-will-house-of-blues-and-more-restaurants-save-anaheim-retail-center/>.
190. Andrea Cross, "Big Block Tracker: Where's the Space?" CBRE, March 31, 2016, <https://www.cbre.us/research-and-reports/US-MarketFlash-Big-Block-Tracker>.

191. Chris Berger, "America's First Shopping Mall is Now Stuffed With Micro Homes," *Curbed*, August 29, 2014, <https://www.curbed.com/2014/8/29/10054364/americas-first-shopping-mall-is-now-stuffed-with-micro-homes>.
192. David Ihrke, "Reason for Moving: 2012 to 2013," United States Census Bureau, June 2014, <https://www.census.gov/prod/2014pubs/p20-574.pdf>.
193. In a 2017 report, the National Association of Realtors indicates that 83 percent of home purchases over the last year were single-family residences. This reveals a preference for that product. See: "Home Buyer and Seller Generational Trends Report 2017," National Association of REALTORS, <https://www.nar.realtor/sites/default/files/reports/2017/2017-home-buyer-and-seller-generational-trends-03-07-2017.pdf>.
194. US Census.
195. Morley Winograd and Michael D. Hais, "Millennials' Home Ownership Dreams Delayed, Not Abandoned," *New Geography*, June 18, 2012, <http://www.newgeography.com/content/002919-millennials%E2%80%99-home-ownership-dreams-delayed-not-abandoned>; Josh Allan Dykstra, "Why Millennials Don't Want to buy Stuff," *Fast Company*, July 13, 2012, <https://www.fastcompany.com/1842581/why-millennials-dont-want-buy-stuff>; Ashley Lutz, "Millennials don't care about owning anything, and it's destroying traditional retail," *Business Insider*, May 28, 2015, <http://www.businessinsider.com/millennials-are-renting-instead-of-buying-2015-5>.
196. "What Younger Renters Want and the Financial Constraints They See," Fannie Mae National Housing Survey, May 2014, <http://www.fanniemae.com/resources/file/research/housingsurvey/pdf/nhsmay2014presentation.pdf#page=10>.
197. Morley Winograd and Michael D. Dais, "Millennials' Home Ownership Dreams Delayed, not Abandoned," *New Geography*, June 18, 2012, <http://www.newgeography.com/content/002919-millennials%E2%80%99-home-ownership-dreams-delayed-not-abandoned>; "Study Finds 84 Percent of Renters Intend on Buying a Home," *National Mortgage Professional*, May 21, 2012, <http://nationalmortgageprofessional.com/news/23453/study-finds-84-percent-renters-intend-buying-home>; Kamran Rosen, "Millennials and Homebuying: Myths and Reality," *Nerd Wallet*, <https://www.nerdwallet.com/blog/mortgages/millennials-and-homebuying/>; "Millennials and Their Homes: Still Seeking the American Dream," *Demand Institute*, 2015, <http://demandinstitute.org/demandwp/wp-content/uploads/2015/01/millennials-and-their-homes-final.pdf>.
198. Jeffrey Marino, "California Fails the Affordability Test for Teachers," *Redfin*, September 20, 2016, <https://www.redfin.com/blog/2014/02/california-home-affordability-for-teachers.html>; Cheryl Young, "Teacher, Teacher, Can You Live Here?" *Trulia*, April 12, 2017, <https://www.trulia.com/blog/trends/affordable-housing/>.
199. Kris Hudson, "Generation Y Prefers Suburban Home Over City Condo," *The Wall Street Journal*, January 21, 2015, <https://www.wsj.com/articles/millennials-prefer-single-family-homes-in-the-suburbs-1421896797>.
200. "Even with Irvine's diverse mix of culture, some residents feel they don't 'fit'."
201. Jonathan Lansner, "A \$350,000 new home in Orange County? It's in the works in Rancho Mission Viejo," *The Orange County Register*, October 18, 2017, <http://www.ocregister.com/2017/09/15/a-350000-new-home-in-orange-county-its-in-the-works-in-rancho-mission-viejo/>.
202. Jeff Collins, "Building an empire: William Lyon's retirement ends 63-year career as builder who helped shape Orange County suburbs," *The Orange County Register*, April 9, 2017, <http://www.ocregister.com/2017/04/03/building-an-empire-william-lyons-retirement-ends-63-year-career-as-builder-who-helped-shape-orange-county-suburbs/>.

203. Morley Winograd and Michael D. Dais, "Millennials' Home Ownership Dreams Delayed, not Abandoned," *New Geography*, June 18, 2012, <http://www.newgeography.com/content/002919-millennials%E2%80%99-home-ownership-dreams-delayed-not-abandoned>; "Study Finds 84 Percent of Renters Intend on Buying a Home," *National Mortgage Professional*, May 21, 2012, <http://nationalmortgageprofessional.com/news/23453/study-finds-84-percent-renters-intend-buying-home>; Kamran Rosen, "Millennials and Homebuying: Myths and Reality," *Nerd Wallet*, <https://www.nerdwallet.com/blog/mortgages/millennials-and-homebuying/>.
204. John Sanphillippo, "Garden Grove: The Other Kind of Incremental Urbanism," *New Geography*, October 6, 2017, <http://www.newgeography.com/content/005760-garden-grove-the-other-kind-incremental-urbanism>.
205. Chris Haire, "Developer's next big project set to revitalize downtown Garden Grove, but some will be displaced," *The Orange County Register*, May 11, 2016, <http://www.ocregister.com/2016/05/11/developers-next-big-project-set-to-revitalize-downtown-garden-grove-but-some-will-be-displaced/>.
206. "Orange County Workforce Indicators Report 2016 and 2017."
207. "Orange County, CA," *Data USA*, <https://datausa.io/profile/geo/orange-county-ca/#economy>.
208. "Orange County's Investor Appeal."
209. Emily Alpert Reyes and Ryan Menezes, "L.A. and Orange counties are an epicenter of overcrowded housing," *Los Angeles Times*, March 7, 2014, <http://articles.latimes.com/2014/mar/07/local/la-me-crowding-20140308>.
210. Pam Fessler, "Homeless Population Rises, Driven by West Coast Affordable-Housing Crisis," *NPR*, December 6, 2017, [https://www.npr.org/2017/12/06/568605069/homeless-population-rises-driven-by-west-coast-affordable-housing-crisis?utm\\_source=npr\\_newsletter&utm\\_medium=email&utm\\_content=20171206&utm\\_campaign=breaking-news&utm\\_term=nprnews](https://www.npr.org/2017/12/06/568605069/homeless-population-rises-driven-by-west-coast-affordable-housing-crisis?utm_source=npr_newsletter&utm_medium=email&utm_content=20171206&utm_campaign=breaking-news&utm_term=nprnews).
211. "Orange County Community Indicators Report 2017."
212. Joseph Pimentel, "Anaheim resident has been lobbying her own solution for homeless housing," *The Orange County Register*, November 1, 2017, <http://www.ocregister.com/2017/11/01/anaheim-resident-has-been-lobbying-her-own-solution-for-homeless-housing/>.
213. Theresa Walker, "Can a nonprofit substantially reduce the population at the Santa Ana River homeless camp?" *The Orange County Register*, September 7, 2016, <http://www.ocregister.com/2017/09/06/can-a-nonprofit-hired-by-the-county-substantially-reduce-population-at-homeless-encampments-along-santa-ana-river-trail/>.
214. Amy DePaul, "A New Way to Battle Homelessness Gains Traction," *Voice of OC*, August 13, 2015, <https://voiceofoc.org/2015/08/a-new-way-to-battle-homelessness-gains-traction/>.
215. Kelly McEvers, "Utah Reduced Chronic Homelessness by 91 Percent; Here's How," *NPR*, December 10, 2015, <https://www.npr.org/2015/12/10/459100751/utah-reduced-chronic-homelessness-by-91-percent-heres-how>.
216. Jessica Terrell, "New affordable housing complex opens in Yorba Linda," *The Orange County Register*, January 28, 2010, <https://www.ocregister.com/2010/01/28/new-affordable-housing-complex-opens-in-yorba-linda/>; Brian Whitehead, "Clark Commons opens at full capacity with 70 affordable units in Buena Park," *The Orange County Register*, February 28, 2017, <https://www.ocregister.com/2017/02/28/clark-commons-opens-at-full-capacity-with-70-affordable-units-in-buena-park/>.

217. Rajat Agarwal, Shankar Chandrasekaran, and Mukund Sridhar, "Imagining Construction's Digital Future," McKinsey & Company, June 2016, <http://www.mckinsey.com/industries/capital-projects-and-infrastructure/our-insights/imagining-constructions-digital-future>; "Digitization in the Construction Industry," Digital Purchase Order, September 16, 201, <https://www.digitalpurchaseorder.com/construction-industry-digitization/>; Robb M. Stewart, "The Construction Business Goes Digital," The Wall Street Journal, September 18, 2016, <https://www.wsj.com/articles/the-construction-business-goes-digital-1474250580>.
218. From conversations discussing this report with:  
Mishal Montgomery, Chief of Staff to Mayor Tait of Anaheim  
David Belmer, City of Anaheim Planning Director  
Gustavo Gonzalez, Senior Planner with Anaheim Planning Department  
Grace Stepter, Housing Services Manager in Community and Economic Development  
Andy Nogal, Housing Development in Community and Economic Development Depart.
219. "Orange County Community Indicators Report 2017."
220. "10 years of change: What new census says about 20 Southern California cities."
221. Jim Doti and Andrew Horowitz, "Attacking income inequality in Orange County," The Orange County Register, June 17, 2017, <http://www.ocregister.com/2017/06/17/attacking-income-inequality-in-orange-county/>.
222. "Orange County Community Indicators Report 2017."
223. Natalie Cohen, "Business Location Decision-Making and the Cities: Bringing Companies Back," The Brookings Institution, April 2000, <https://www.brookings.edu/wp-content/uploads/2016/06/cohen-1.pdf>;
224. "Orange County Community Indicators Report 2017"; "English Learners in Public Schools, by Top 10 Languages Spoken," kidsdata.org, <http://www.kidsdata.org/topic/45/languages-top10/table#fmt=474&loc=2,364,365&tf=88&ch=106,736,100,737,107,738,112,104,99,102,734&sortColumnId=0&sortType=asc>; Stefanie P. Phillips, "Great things are happening at Santa Ana Unified," The Orange County Register, May 27, 2017, <http://www.ocregister.com/2017/05/27/great-things-are-happening-at-santa-ana-unified/>.
225. "Orange County Workforce Indicators Report 2016 and 2017"; "California Public K-12 Graded Enrollment and High School Graduate Projections by County — 2017 Series," State of California Department of Finance, December 2017, [http://www.dof.ca.gov/Forecasting/Demographics/Projections/Public\\_K-12\\_Graded\\_Enrollment/](http://www.dof.ca.gov/Forecasting/Demographics/Projections/Public_K-12_Graded_Enrollment/).
226. "Orange County Workforce Indicators Report 2016 and 2017."
227. Dori Meinert, "HR Gets Creative to Hire Manufacturing Workers," Society for Human Resource Management, November 1, 2015, <https://www.shrm.org/hr-today/news/hr-magazine/pages/1115-manufacturing-recruitment.aspx>; "Orange County Workforce Indicators Report 2016 and 2017"; Matt Krupnick, "After decades of pushing bachelor's degrees, U.S. needs more tradespeople," PBS, August 29, 2017, <http://www.pbs.org/newshour/updates/decades-pushing-bachelors-degrees-u-s-needs-tradespeople/>; Klarissa Alcala, "College of Engineering and Computer Science achieves highest growth across CSUF," Daily Titan, March 16, 2015, <https://dailytitan.com/2015/03/college-of-engineering-and-computer-science-achieves-highest-growth-across-csuf/>.
228. The Good Jobs Project, <https://goodjobsdata.org/>; "Findings: Postsecondary/College," National Center for Education Services, [https://nces.ed.gov/surveys/ctes/figures/fig\\_2016107-2.asp](https://nces.ed.gov/surveys/ctes/figures/fig_2016107-2.asp); Gwen Burrow, "The Most Popular Jobs for Young Workers Are in the Arts, Skilled Trades, and Sciences," Emsi, May 4, 2017, <http://www.economicmodeling.com/2017/05/04/best-jobs-workers-25/>.

229. "Business Location Decision-Making and the Cities: Bringing Companies Back."
230. Greg Ip, "Workers: Fear Not the Robot Apocalypse," *The Wall Street Journal*, September 5, 2017, [https://www.wsj.com/articles/workers-fear-not-the-robot-apocalypse-1504631505?shareToken=stabb53f26f544566a3b04fc3361af876&reflink=article\\_email\\_share](https://www.wsj.com/articles/workers-fear-not-the-robot-apocalypse-1504631505?shareToken=stabb53f26f544566a3b04fc3361af876&reflink=article_email_share).
231. Cromwell Schubarth, "Top Kleiner Perkins VC warns of major cybersecurity talent shortage," *Silicon Valley Business Journal*, June 12, 2017, [https://www.bizjournals.com/sanjose/news/2017/06/12/ted-schlein-kleiner-perkins-cybersecurity.html?ana=e\\_sjo\\_tf&s=newsletter&ed=2017-06-12&u=ihmE8%2FLfe4nDio0hCsthx6TRI-u%2F&t=1497397724&j=78367701](https://www.bizjournals.com/sanjose/news/2017/06/12/ted-schlein-kleiner-perkins-cybersecurity.html?ana=e_sjo_tf&s=newsletter&ed=2017-06-12&u=ihmE8%2FLfe4nDio0hCsthx6TRI-u%2F&t=1497397724&j=78367701).
232. "Orange County Workforce Indicators Report 2016 & 2017"; "Facts and Figures," University of California Samueli School of Engineering, <http://engineering.uci.edu/about/facts-and-figures>.
233. Howard Gillman, "Top colleges should be catalysts for upward mobility, not reproducers of privilege," *The Orange County Register*, April 15, 2017, <http://www.ocregister.com/2017/04/15/top-colleges-should-be-catalysts-for-upward-mobility-not-reproducers-of-privilege/>; Roxana Kopetman, "Feds award UCI designation of being a Hispanic-serving institution," *The Orange County Register*, May 23, 2017, <http://www.ocregister.com/2017/05/22/feds-award-uci-designation-of-being-a-hispanic-serving-institution/>.
234. Owen Skae, "Universities should focus on growth of their cities," *Business Day*, July 28, 2017, <https://www.businesslive.co.za/bd/national/education/2017-07-28-universities-should-focus-on-growth-of-their-cities/>.
235. Margot Roosevelt, "Orange County's income gap: the rich earn 11 times more than the poorest," *The Orange County Register*, May 20, 2016, <https://www.ocregister.com/2016/05/20/orange-countys-income-gap-the-rich-earn-11-times-more-than-the-poorest/>.
236. Jonathan Lansner, "Orange County office buildings sell at record fast pace at record high prices," *The Orange County Register*, November 27, 2017, <https://www.ocregister.com/2017/11/26/orange-county-office-buildings-sell-at-record-fast-pace-at-record-high-prices/>; Jonathan Lansner, "8 reasons why tourism matters in Orange County," *The Orange County Register*, December 17, 2017, <https://www.ocregister.com/2017/12/17/8-reasons-why-tourism-matters-in-orange-county/>.
237. Wayne Ma and Julie Steinberg, "China's HNA Group Seeking Sale of \$6 Billion in Overseas Property," *The Wall Street Journal*, December 18, 2017, <https://www.wsj.com/articles/chinas-hna-group-seeking-sale-of-6-billion-overseas-property-portfolio-1513602757>; Keith Bradsher, "China Stanches Flow of Money Out of the Country, Data Suggests," *The New York Times*, April 7, 2016, [https://www.nytimes.com/2016/04/08/business/dealbook/china-foreign-exchange-reserves-rise.html?\\_r=0](https://www.nytimes.com/2016/04/08/business/dealbook/china-foreign-exchange-reserves-rise.html?_r=0).
238. Jonathan Lansner, "It's OK to cheer the recovery," *The Orange County Register*, <https://www.ocregister.com/2016/07/03/lansner-its-ok-to-cheer-the-recovery/>.
239. Interview with authors.
240. "Business Location Decision-Making and the Cities: Bringing Companies Back"; Conor Dougherty, "Bay Area Start-Ups Find Low-Cost Outposts in Arizona," *The New York Times*, August 21, 2016, <https://www.nytimes.com/2016/08/22/business/economy/bay-area-start-ups-find-low-cost-outposts-in-arizona.html?mtrref=www.google.com>; Henry Grabar, "Your City Will Lose the Contest for Amazon's New HQ," *Slate*, September 8, 2017, [http://www.slate.com/articles/business/metropolis/2017/09/your\\_city\\_will\\_lose\\_the\\_contest\\_for\\_amazon\\_s\\_new\\_hq.html](http://www.slate.com/articles/business/metropolis/2017/09/your_city_will_lose_the_contest_for_amazon_s_new_hq.html).

241. Heidi Mitchell, "Why Cities Need to Create Their Own Global Brands," *The Wall Street Journal*, April 16, 2017, <https://www.wsj.com/articles/why-cities-need-to-create-their-own-global-brands-1492394882>.
242. C.W. Park, "How Brands Create Value for Customers," *Branding Strategy Insider*, February 9, 2017, <https://www.brandingstrategyinsider.com/2017/02/how-brands-create-value-for-customers.html#Wj8WrxM-fVo>.
243. Simon Anholt, *Competitive Identity: The New Brand Management for Nations, Cities and Regions* (New York: Palgrave Macmillan, 2007).
244. Aaron M. Renn, "Columbus, Ohio Is Stuck in Branding Neutral," *Urbanophile*, August 28, 2017, <http://www.urbanophile.com/2017/08/28/columbus-ohio-is-struck-in-branding-neutral/>.
245. San Diego Regional EDC, <http://www.sandiegolifechanging.org/>; "Welcome to Silicon Valley," *Ympact*, June 5, 2015, <https://www.youtube.com/watch?v=r44RKWyfcFw>; "Opportunity Austin 3.0 Strategic Checklist," *Austin Chamber*, December 12, 2012, [https://www.austinchamber.com/upload/files/OA\\_3\\_0\\_Strategic\\_Checklist\\_\\_12\\_12\\_12.pdf](https://www.austinchamber.com/upload/files/OA_3_0_Strategic_Checklist__12_12_12.pdf); *The Research Triangle Park*, <https://www.rtp.org/>; *OneNYC*, <https://onenyc.cityofnewyork.us/>.
246. "The Barcelona Brand. Barcelona Inspires Innovation, Creativity, Economic Growth and Quality of Life," *Barcelona.cat*, December 1, 2014, <https://www.youtube.com/watch?v=t1ebvDEOP1s>; "How Barcelona built an innovative social media strategy," *Hootsuite*, <https://hootsuite.com/resources/case-study/barcelona-city-council-case-study>.
247. Olivier Arifon, "Rescaling through city branding: The case of Amsterdam," *The Conversation*, April 26, 2017, <http://theconversation.com/rescaling-through-city-branding-the-case-of-amsterdam-71956>.
248. San Diego Regional EDC, <http://sandiegolifechanging.org/>.
249. "Happiness is Calling Families to San Diego," *San Diego*, January 13, 2017, <https://www.youtube.com/watch?v=VKzOb3wsXRU>.
250. "Technology," *San Diego Regional EDC*, <http://www.sandiegobusiness.org/our-economy/technology>.
251. "A San Diego Summer Feeling — Happiness is Calling," *San Diego*, January 13, 2017, <https://www.youtube.com/watch?v=BpewgKcuOCg>.
252. "Blizzard Entertainment: Living in Orange County," *Blizzard Entertainment*, April 13, 2017, <https://www.youtube.com/watch?v=IEI9OazzZpg>.
253. Interview with authors.
254. *LocationOC.com*, <https://twitter.com/LocationOC>.
255. *OrangeCounty.net*, <http://www.orangecounty.net/index.html>.
256. Interview with authors.
257. "Discover Los Angeles | Magic," *Discover Los Angeles*, February 3, 2017, <https://www.youtube.com/watch?v=7kRI2l-Wg9qY>.
258. Gustavo Arellano, "50 Reasons Why Orange County is The Worst Effing Place in America," *OC Weekly*, September 26, 2012, <http://www.ocweekly.com/news/50-reasons-why-orange-county-is-the-worst-effing-place-in-america-6484401>.

259. Somjita Mitra, Kimberly Ritter-Martinez, and Rafael DeAnda, "Otis Report on the 2017 Creative Economy," Los Angeles County Economic Development Corporation, May 2017, <https://laedc.org/wp-content/uploads/2017/05/2017-LA-Region-Creative-Economy-Report-FINAL.pdf>.
260. Joseph Cortright, "The Young and Restless in a Knowledge Economy," CEOs for Cities, December 2005, [http://planning.sanjoseca.gov/planning/gp\\_update/meetings/6-23-08/The%20Young%20and%20the%20Restless.pdf](http://planning.sanjoseca.gov/planning/gp_update/meetings/6-23-08/The%20Young%20and%20the%20Restless.pdf).
261. *Orange County, Inc.*, p.7-8.
262. *Ibid*, p.16.
263. Interview with authors.
264. Joel Kotkin and Wendell Cox, "Our Town: Restoring Localism," Center for Opportunity Urbanism, September 2016, [http://opportunityurbanism.org/wp-content/uploads/2016/10/Restoring-Localism\\_9-10-16.pdf](http://opportunityurbanism.org/wp-content/uploads/2016/10/Restoring-Localism_9-10-16.pdf).
265. Interview with authors.
266. Jordan Graham, "As Santa Ana Civic Center homeless population grows, so do crime, fear and disease," The Orange County Register, September 6, 2016, <https://www.ocregister.com/2016/09/06/as-santa-ana-civic-center-homeless-population-grows-so-do-crime-fear-and-disease/>.

## Design Notes

**THE ORANGE COUNTY FOCUS: Forging Our Common Future** and the graphics utilize the following:

To achieve visual harmony a modified version of the grid Jan Tschichold conceived for his book *Typographie* was employed.

MINION PRO Chapman's serif family, is a digital typeface designed by Robert Slimbach in 1990 for Adobe Systems. The name comes from the traditional naming system for type sizes, in which minion is between nonpareil and brevier. It is inspired by late Renaissance-era type.

**FUTURA** is Chapman's geometric san-serif family designed by Paul Renner and released in 1927. Despite its clean geometric appearance, some of Futura's design choices recalled classic serif typefaces. Unlike many sans-serif designs intended for display purposes, Futura has quite a low x-height, reducing its stridency and increasing its suitability for body text. Futura has an appearance of efficiency and forwardness. Source: Wikipedia

Front and back cover: photo by Ethan Stupp

Inside front & back cover: photo by Ethan Stupp

All interior photos unless otherwise noted by Ethan Stupp

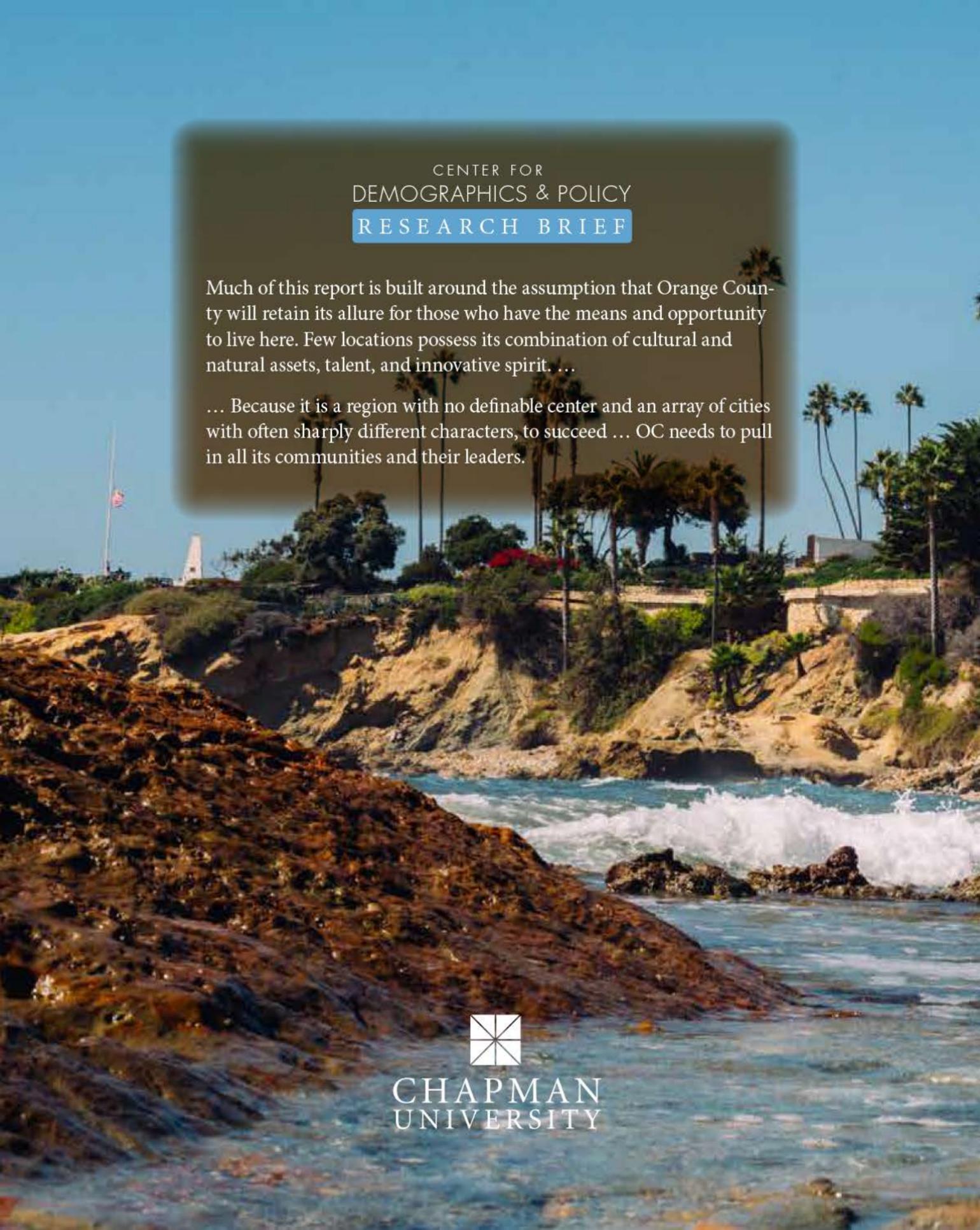
Photo Page 33 & 35: [www.123RF.com](http://www.123RF.com)

Book exterior and interior design by Chapman University professor Eric Chimenti. His work has won a Gold Advertising Award, been selected for inclusion into *LogoLounge: Master Library, Volume 2* and *LogoLounge Book 9*, and been featured on *visual.ly*, the world's largest community of infographics and data visualization. He has 27 years of experience in the communication design industry. To view a client list and see additional samples please visit [www.behance.net/ericchimenti](http://www.behance.net/ericchimenti).

Professor Chimenti is also the founder and head of Chapman's Ideation Lab that supports undergraduate and faculty research by providing creative visualization and presentation support from appropriately qualified Chapman University undergraduate students. Services include creative writing, video, photography, data visualization, and all aspects of design. The students specialize in the design and presentation of complex communication problems.







CENTER FOR  
DEMOGRAPHICS & POLICY  
RESEARCH BRIEF

Much of this report is built around the assumption that Orange County will retain its allure for those who have the means and opportunity to live here. Few locations possess its combination of cultural and natural assets, talent, and innovative spirit. ...

... Because it is a region with no definable center and an array of cities with often sharply different characters, to succeed ... OC needs to pull in all its communities and their leaders.



CHAPMAN  
UNIVERSITY