









2020 NORTH COUNTY INDICATORS



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EDUCATION

Introduction

The North County Indicators (NCI) are designed to provide a quantitative assessment of San Diego's North County and spark a more informed conversation about the region's future. This is the seventh iteration of the NCI. The 2020 North County Indicators includes 47 indicators and 76 data sets. The indicators are split into five categories - people, economy, innovation, education, and place, that are meant to provide a holistic measure of North County's economic eco-system.

In January of 2020, San Diego's North County (North County) had 1.2 million residents and just over 521,000 jobs. As a region, North County has a larger population than metropolitan areas like Salt Lake City or Tucson, and more jobs than Honolulu or Albuquerque. If North County were a state within the United States, it would be the 42nd largest state by population or employment.

A Pre & Post Coronavirus Analysis

NCI 2020 provides a snapshot of the region at a critical inflection point; an examination of the region's economy before the coronavirus impacted San Diego's North County and the world. This seventh edition of the NCI will serve as a bridge between North County's pre-COVID-19 economy and the post-COVID-19 environment. The indicators in the report were compiled in February of 2020 and reflect North County's economy through the end of 2019 and the beginning of 2020, before COVID-19 had an impact on the region. The State of North County reflects the region before COVID-19, and the follow-up analysis is focused on how North County can recover and thrive in the post-COVID-19 landscape. Moving forward, NCI will continue to examine and quantify the changes in the economic landscape in North County, with next year's indicators providing quantitative measures of the regional economy before and after COVID-19.



Acknowledgments

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BW Research and San Diego North Economic Development Council would especially like to thank Doug Green and the entire Carlsbad High School video journalism program (CHSTV) for their work in producing a series of films that spotlight the North County economy.

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State of North County Pre-Coronavirus

Through the beginning of 2020, North County continued to experience consistent employment growth and improving job quality. The region also faced a tightening labor market, growing housing challenges, and an uncertain macroeconomic environment. From 2014-2019, the region experienced 18 percent growth in tier 1 (higher-skill, higher paying) occupations; a rate greater than San Diego County, California, and almost 40 percent faster than the national average. Some of the key issues and trends identified when compiling this year's North County Indicators include:

North County's high concentration industry clusters are consistently growing & providing high wages The region's high concentration industry clusters include Agriculture & Food; Biotechnology & Biomedical Devices; Building & Design; Defense, Aerospace & Transportation Manufacturing; Information & Communication Technologies (ICT); and Tourism, Hospitality & Recreation. All six of these standardized industry clusters grew over the last five years (2014-2019) and over the last 12 months (2018 to 2019). While some of these industries saw relatively modest employment growth between 2014 to 2019, more than half grew by much larger proportions. Employment grew by 17% in ICT, 29% in Building & Design, and a whopping 171% in Defense, Aerospace & Transportation Manufacturing between 2014-2019. Others industry clusters grew at rates reflective of more mature industries, including 4% growth among Biotechnology & Biomedical Devices and 8% in Agriculture and Food. All six of these key industry clusters for North County, except for Agriculture & Food and Tourism, Hospitality & Recreation, provide average annual earnings that are above \$69,000.

North County's K-12 educational system gets high marks

North County's K-12 schools performed above the California average in both Math and English Language Arts proficiency, for both the overall region and in each of the four areas. In general, the North County Central Coast and Central Inland performed well above average, higher than Santa Clara County or any other comparable Counties, while North County Coast and Inland were a few percentage points above the California average. It is worth noting, that North County's average spending per student was well below the California average as well. High School dropout rates were well below the California average for all areas in North County, except for North County's Coastal community, which saw higher than average dropout rates, largely because of the high portion of dropouts in Vista Unified School District. The one area that most of North County's K-12 schools can improve is the percentage of students that meet University of California and/or California State University requirements when graduating from High School. Only North County's Central Inland community was above the California average in this metric.

STEM Degree Production has increased considerably in North County, with more growth needed Individuals with Science, Technology, Engineering and/or Math (STEM) college degrees continue to be in high demand among North County employers. This is particularly true for many of the region's high concentration industry clusters, such as Information & Communication Technologies (ICT), Biotechnology & Biomedical Devices, and Defense, Aerospace & Transportation Manufacturing. From 2009 to 2018, the annual capacity for producing STEM graduates in North County increased by almost 200 percent, more than 3 times the rate of growth in California. This considerable increase in educational capacity needs to continue as North County continues to see growth in the industries that require these degrees. Currently North County only has capacity to produce a little over 1 percent of California's STEM degrees, while accounting for over 3 percent of California's population.

North County's population continues to get older while the labor market tightens The number of residents who are 65 years and older in North County increased by more than 35,000 (25 %) over the past five years (2014-2019). This growth is substantially higher than any other age cohort in North County. Simultaneously, the proportion of primary working aged residents (35 to 64 years old) declined by seven percent. While the aging of the population is happening all over the country, the rate is considerably faster in North County and it has an impact on the tight labor market (2.6 percent unemployment in North County, see Table 14, page 27), the availability of housing, and the demand for services related to healthcare and transportation. The aging population is particularly challenging for the region as the combination of incoming workers and a growing number of retirees who are leaving the workforce results in the stock of workforce housing getting smaller and more expensive.

Household Incomes were rising in North County Areas where they are needed most

Median annual household incomes in North County increased by almost \$9,000 from 2017 to 2018. This represents an increase of approximately ten percent for North County. What may be even more notable was the largest proportional increase occurring in North County's Inland area (12%), which has the lowest median income by area in North County, and the smallest proportional increase occurring in North County's Central Coast area (6%), which has the highest median income. This data reverses an earlier trend pointed out in 2019's North County Indicators which identified a growing disparity between household income in North County's different areas. This data should be reexamined in future years to determine if the 2017 to 2018 median annual household income data by area was a one-time deviation from the larger trend of growing disparities between areas in North County or a reversal of that trend.



How Does North County Blossom Post-Coronavirus?

North County, like regions across the Country and the World, is wrestling with how to move from a quarantined economy to one that can recover and ultimately support the high quality of life and economic opportunity that we value. The following issues, ideas, and considerations for North County are meant to provide a more informed conversation about planning and rebuilding North County's economy.



The Rise of Science & Evolving Risk Factors

COVID-19 has been called a once in a generation challenge that could have as big an impact on the globe as World War II. While it is still too early in this war with the invisible virus to know its worldwide magnitude, like World War II, it is being felt on every continent and is exacting a considerable cost on most nations. However, unlike World War II, this war will not be won by military might and overall productive capacity, but will instead be decided by science, innovation, and our ability to quickly and effectively, research and develop novel solutions. In fact, many of the challenges we face in the 21st-century as a region and as a country will require a new way of approaching risk and the investments in infrastructure and people that go along with it. Whether we are looking at another health pandemic, more volatile weather due to climate change, or a considerable seismic event, North County faces risks that go well beyond the capacity of our military or national defense infrastructure to mitigate. As a region we need to build upon our industry, educational, and municipal leadership to improve and expand on our capacity for research and development of science-driven solutions.

North County's high-concentration industries that define the economic landscape, including ICT, Biotechnology & Biomedical Devices, and Defense, Aerospace & Transportation Manufacturing are all rooted in science, technology, and innovation. The firms that make up these industries in North County provide the foundation for science-driven research and development. The region will also require strong leadership that supports and remains committed to the science and innovation ecosystem as well as educational institutions that are continually developing a healthy pipeline of scientists, engineers, and researchers, while also improving scientific literacy among North County's students and residents.

Reassessing Manufacturing and the Global Supply Chain

Evolving trade agreements, current and threatened tariffs, and now, COVID-19 have not only disrupted manufacturing, they have forced industries to reevaluate the costs and benefits of global but narrow supply chains. Businesses and the regions that support them are not only reexamining their international suppliers, they are working to understand how they might respond to reliability, tax, and guality control concerns that could require a larger portion of their supply chain to be produced locally or on a more distributed basis. This disruption to the supply chain could provide economic and employment opportunities for firms and individuals that could potentially support these manufacturers and their changing supplier relationships. The reevaluation of the global supply chain will be particularly important for North County, as the region has a high concentration of manufacturing employment. Approximately 10 percent of all employment in North County is classified under manufacturing, compared to only five percent county-wide. In California as a whole manufacturing represents about seven percent of all employment.

North County's largest manufacturing segments by employment are:

- Aerospace products and parts manufacturing (~8,400 North County jobs)
- Navigational, Measuring, Electromedical and Control instrument manufacturing (~7,800 North County jobs)
- Communications equipment manufacturing (~5,000 North County jobs)
- Medical equipment and supplies manufacturing (~4,500 North County jobs)
- Pharmaceutical and medicine manufacturing (~3,500 North County jobs)

These five industry segments within manufacturing represent approximately half of all manufacturing employment in North County. These segments are also largely connected to complex, highly integrated supply chains, as much of the work in the region is not actually assembling and producing products but engaged in research, development, and design.

These will require deep and focused conversations with leading companies engaged in manufacturing to fully understand their procurement processes and to identify key upstream industries that can be targeted for economic development assistance. For example, better understanding upstream supply chains for unmanned aerial vehicles from General Atomics Aviation and Northrop can, in turn, inform economic development efforts designed to bring suppliers closer to those leading companies. These efforts will work to increase resilience across supply chains and create additional employment opportunities for North County residents.

Economic Resiliency in North County

In early February of 2020, when we began writing what North County should consider as it looks to the future and its regional vitality, economic resilience was the first theme we explored. Over the last few months, that initial theoretical exploration of regional economic resilience has become quite real, as sizable components of North County's economy have been shuttered, unemployment has jumped, and household income has declined, all in quick succession. The following discussion provides a framework for evaluating regional economic resilience and a preliminary assessment of where North County falls in this framework.

Regional economic resilience is a way of thinking about a region's ability to both a) resist a "shock event" (such as an economic recession, pandemic, or natural disaster) and to b) recover from such an event. Whether we are examining the macroeconomic shocks associated with September 11, 2001, the great recession of 2008 and 2009, and now COVID-19, these occur regularly, and more localized shocks like the North County fires of 2017, only add to the need for evaluating and strengthening regional economic resilience. This section breaks down regional resilience into four primary categories:

- Industry cluster diversification and connectivity to larger markets; A region's diversity in industry clusters and economic activity plays a foundational role in a region's ability to resist macroeconomic downturns and to recover more quickly in the event of one. *This is a real strength of the North County economy*, which has a high-concentration of employment in highpaying, export-oriented industry clusters, including ICT, Biotechnology & Biomedical Devices, and Defense, Aerospace & Transportation Manufacturing. These industry clusters serve a broad range of customers and provide a diverse source of income for North County. (For more information on North County's industry cluster diversity see pages 34-37)
- 2)

Household-level financial stability and resilience; Research¹ shows that households with lower debt-to-income ratios are more likely to resist the worst impacts from macroeconomic shocks and recover quickly from economic downturns. *North County households are mixed on this category*. San Diego County

¹ "Resilience in a Time of High Debt" OECD Economic Outlook, Volume 2017 Issue 2. <u>https://www.oecd.org/economy/outlook/Resilience-in-a-time-of-high-debt-november-2017-OECD-economic-outlook-chapter.pdf</u>

has a relatively high debt-to-income ratio, with North County resident's on average more affluent, and therefore likely to have somewhat lower debt-to-income ratios than their counterparts to the South. The data also shows that communities within North County have high levels of poverty and economic distress and will not be as resilient in the face of these powerful economic downturns. (For more information on North County resident's income and economic distress see pages 40-43)

Economic agility, entrepreneurship, and innovation; The ability to create new businesses, products or services or change a business dramatically in response to a disruption in the economic landscape is a valuable component in recovering quickly from an economic downturn. North County appears to be strong in this category, but more current and regionally specific data needs to be gathered to be confident in this initial assessment. North County boasts a high number of residents that are responsible for developing new patents and the growth in new businesses appears to be strong, although data is a few years old and not all of it is specific to North County. (For more information on North County's innovation and entrepreneurship activity see pages 44-49)

3)

4)

Regional infrastructure & preparedness for disasters, pandemics, and other disturbances. Regional, national, or global shocks will often test one or more aspects of a region's infrastructure and planning. The resilience of that infrastructure will often determine the ability of a region to resist a corresponding economic downturn and/or the speed of the economic recovery. North County's healthcare infrastructure appears to have responded well to the pandemic, but it has not experienced the intense demands on its healthcare system that other regions have faced. Healthcare infrastructure is only one aspect of the regional infrastructure that needs to be analyzed and potentially strengthened as we examine economic resilience. Examination of the infrastructure related to a region's bandwidth, electrical grid, water, transportation, and public safety services are all critical elements for a region's economic resiliency. Each of these infrastructure components should be evaluated regularly and considered for additional investment based on that evaluation. (For more information on North County's transportation and water systems see pages 64-68)



Rebuilding the Tourism & Hospitality Economy

In the beginning of 2020, Tourism, Hospitality & Recreation employed more people in North County than any of the other 15 industry clusters included in this analysis with almost 70,000 jobs in the region. Unfortunately, it is also the industry cluster that has been hit hardest by the initial response to COVID-19. By early April of 2020, employment in Tourism, Hospitality and Recreation had declined by over 30 percent². By the end of May this proportional drop in employment in Tourism, Hospitality & Recreation could be over 50 percent and a V-shaped recovery in this cluster is unlikely until an effective vaccine is circulating.

This substantial decline in employment and related threats to the tourism and hospitality economy has several implications and considerations for North County;

- Many of the region's lowest paid workers find themselves out of work and likely out of income with few or no other employment options. Tourism, Hospitality & Recreation was not only the largest employer in North County, it also has the lowest average annual earnings of the 16 industry clusters in the region.
- 2) Many of the region's youth develop valuable non-technical skills in their first job, and that is often in the Tourism & Hospitality sector. Whether it is learning how to deal with customers from a broad range of backgrounds or communicating effectively with supervisors and coworkers, this valuable education could be lost to the next generation who are entering the world of work.
- 3) Over the longer term one of North County's Hospitality's key value proposition is under long term threat – as rising sea levels threaten coastal infrastructure and sand beaches. At present we know of no regional conversation that is leaning into the question of how to mitigate the deleterious impacts of beach erosion on our tourism industry and, should we lose key beaches, what additional value propositions can be developed in the market so as to continue to fuel tourism demand.
- 4) Lastly, Tourism, Hospitality & Recreation firms not only generate revenue for North County by bringing in people and their money from outside the region, they enhance the quality of life for the region's residents. It is also one of the most important sources of tax revenue for local cities – largely being free of state constraints and set at a fairly high level of gross room revenue.

² "A Post Coronavirus Reality for the World of Work" BW Research Partnership, April 15, 2020. <u>https://www.bwresearch.com/covid/docs/BWResearch_PostCoronavirusRealityWorldOfWork_April2020.pdf</u>

Moving forward, if the Tourism, Hospitality and Recreation cluster continues to experience substantially diminished employment due to COVID-19, the region will need to develop a response to the challenges highlighted, particularly as they relate to the loss of employment to some of the region's most vulnerable working residents.

Education & Upskilling in a Time of Disruption

The educational landscape has changed drastically in a short period of time. For K-12, educators have had to, almost overnight, move their curriculum from a traditional class-based model to an online approach, with parents filling in to meet those teaching needs that cannot be met over computer. Many colleges and universities have also struggled to make this transition, with the added challenge that demand for their services will likely increase as more adults return to school to develop new skills that will better serve their employment opportunities, as people take advantage of the economic downturn by becoming more competitive in the new job market.

This disruption to North County's educational system has several implications that should be considered for the economic health of the region.

- North County's largely high-performing K-12 educational system (see pages 52-54) is a critical component in attracting and retaining the talent that drives the region's key industry clusters such as ICT, Biotechnology & Biomedical Devices, and Defense, Aerospace & Transportation Manufacturing. The region will need to build upon this success and ensure that North County's K-12 system remains highperforming during and after the COVID-19 disruption.
- 2) The world of work is changing dramatically in a short-time, and both K-12, but particularly colleges and universities need to understand how their curriculum will need to respond to these changes. Educators will need to hear from industry stakeholders and applied researchers who will help find the new balance between the development of foundational skills and the evolution of technical skills that are needed by employers.

San Diego's North County Region



NORTH COUNTY'S JURISDICTIONS AND UNINCORPORATED AREAS

COAST	CENTRAL COAST	INLAND	CENTRAL INLAND
Camp Pendleton Carlsbad Oceanside Vista	Cardiff by the Sea Del Mar Encinitas Rancho Santa Fe Solana Beach San Diego* (partial)	Bonsall Borrego Springs Escondido Fallbrook Palomar Mountain San Marcos Valley Center	Julian Poway Ramona San Diego* (partial)

* = Zip codes 92127, 92129, 92128, 92130



People

The people that live and work in a region are the critical ingredient for any long-run economic health and vitality. The indicators in this section help us understand how the population in North County is evolving and the role that people play in driving regional economic advantages, challenges, and opportunities.

SECTION 1: A CHANGING POPULATION

San Diego's North County population reached 1.2 million in 2019. This represents about 35% of San Diego County's total population and is just over 3% of California's residents. North County's population is larger than that of Westchester County in New York, Montgomery County in Maryland, and Contra Costa County in California. If it was its own city, North County would be the 10th largest in the nation.

Between 2014 and 2019, North County's population grew by nearly 4%, equating to an additional 41,000 people. This rate of growth is similar to that seen in broader San Diego County, slightly faster than the statewide average, and comparable to the growth seen in the United States overall. This population growth rate is considerably greater than that in neighboring Orange County (2%) and Los Angeles County (1%) over the same time period.

North County's Central Coast (Del Mar to Encinitas) continues to see the highest rate of growth in North County; between 2014 and 2019, the population increased by more than 5%. North County Inland (from San Marcos to Borrego Springs) also saw notable population growth, increasing by nearly 4% during this time.

WHY DO THESE INDICATORS MATTER?

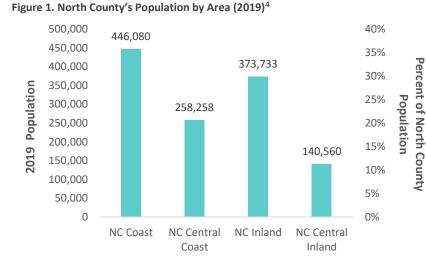
Analyzing North County's changing population allows us to better understand the driving forces of changes that will ripple throughout North County. Population demographics provide insights into supply and demand for healthcare, education, local restaurants and shops, training, childcare, and recreation.

North County's population continues to grow considerably older. The population aged 65 and older increased by 25%

between 2014-2019—a rate nearly three times faster than any other age cohort. This trend seems likely to continue, as those ages 45 to 64 make up 26% of the current population.

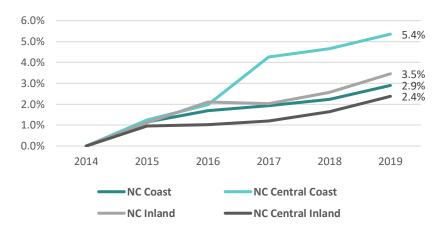
While a fifth (21%) of North County's population is foreign born, this proportion is lower than that of San Diego County, other surrounding counties, and California. North County also has a lower proportion of those who speak a language other than English (though many also speak English) than San Diego County and California overall. North

County Inland is the only subregion where more than a third of the population speaks a language other than English³ (*Figure 5*).



The central sub regions (Central Coast and Central Inland) only account for a third (33%) of North County's population.

Figure 2. North County's Changing Population (2014 to 2019)⁵





⁴ Emsi 2020.1 QCEW and Non-QCEW

³ Many of these other language speakers also speak English.

⁵ Emsi 2020.1 QCEW and Non-QCEW

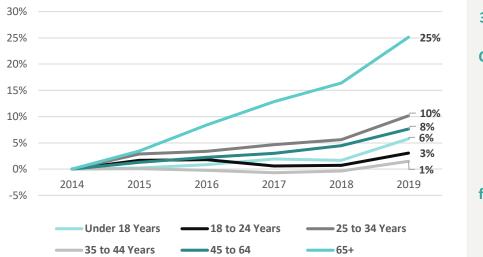


Figure 3. North County's Changing Population by Age (2019)⁶

37% of all population growth in North County was driven by residents 65 years and older.

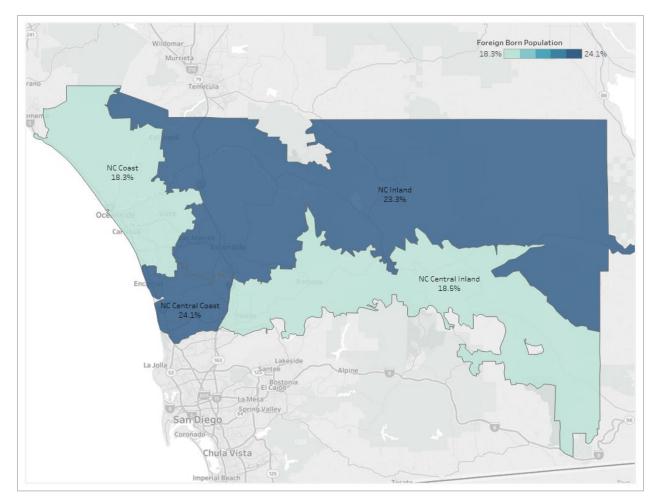
25% Growth rate

for residents 65 years and older.

According to a recent Kauffman Indicators of Entrepreneurship report, in 2018, immigrants were nearly twice as likely to be entrepreneurs and accounted for 30% of the nation's new entrepreneurs.

⁶ Emsi 2020.1 QCEW and Non-QCEW

Figure 4. North County Foreign-Born Population (2018)⁷



rable 1. roleign-born ropulation comparison (2010)	Table 1. Foreign-Born	Population	Comparison	(2018) ⁸
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United	All North	Riverside	San Diego	California	Orange	Los Angeles	Santa Clara
States	County	County	County		County	County	County
13.7%	21.1%	21.4%	23.6%	26.9%	29.7%	34.0%	39.0%

⁷ U.S. Census Bureau, 2014–2018 American Community Survey 5-Year Estimates.

⁸ U.S. Census Bureau, 2014–2018 American Community Survey 5-Year Estimates.

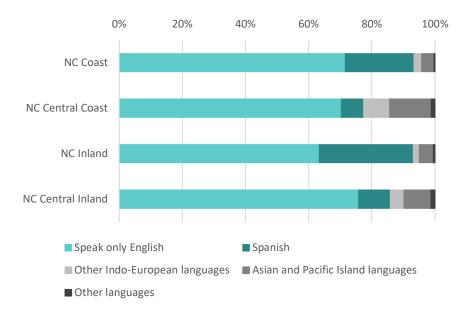
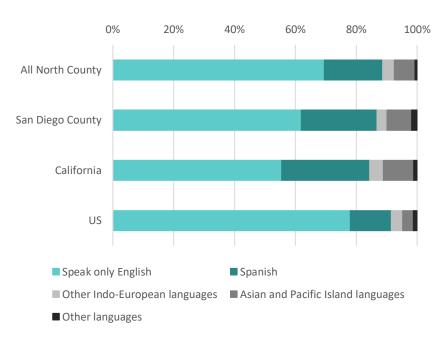


Figure 5. Languages Spoken in North County (5 years and older) (2018)9

It is important to note that for the indicators of languages spoken, those in the Spanish, Other Indo-European, Asian & Pacific Island, and Other categories are not necessarily monolingual and may speak English as well.

Figure 6. Languages Spoken Comparison (5 years and older) (2018)¹⁰



North County has a larger proportion of those who speak only English than broader San Diego County and the state, though the proportion is still smaller than the national average.

⁹ U.S. Census Bureau, 2014–2018 American Community Survey 5-Year Estimates.

¹⁰ U.S. Census Bureau, 2014–2018 American Community Survey 5-Year Estimates.

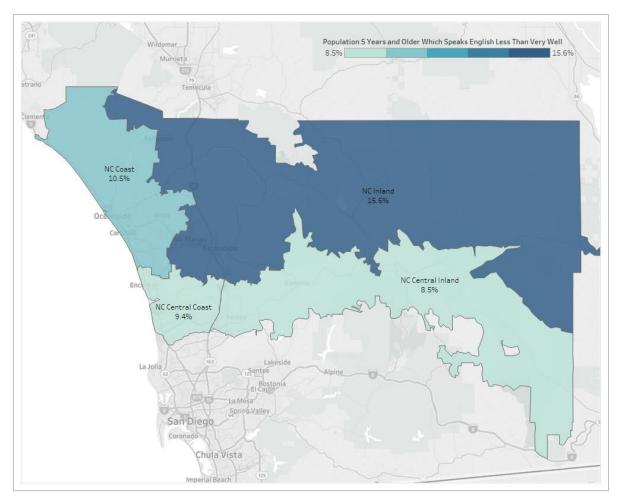


Figure 7. Speak English Less than Very Well in North County (5 year and older) (2018)¹¹

As a whole, North County has a lower percentage of residents who reported speaking English less than "very well" than California and other comparable regions in the state.

Table 2. Speak English Less than Very	v Well Comparison (5	vear and older) (2018) ¹²
Table 2. opean English 2000 that ver		

United	All North	San Diego	Riverside	California	Orange	Santa Clara	Los Angeles
States	County	County	County		County	County	County
8.3%	11.5%	13.6%	15.7%	17.4%	18.7%	19.3%	23.0%

¹¹ U.S. Census Bureau, 2014–2018 American Community Survey 5-Year Estimates.

 $^{^{\}rm 12}$ U.S. Census Bureau, 2014–2018 American Community Survey 5-Year Estimates.

Figure 8. Race & Ethnicity Comparison (2018)¹³

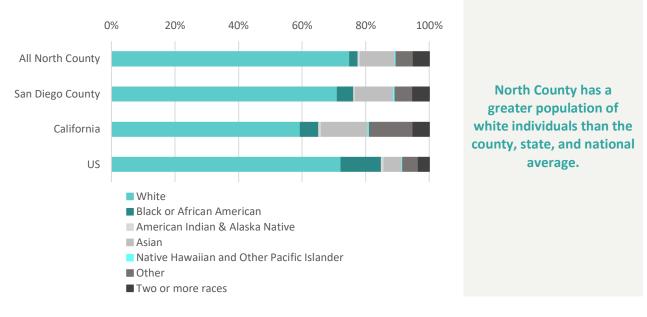
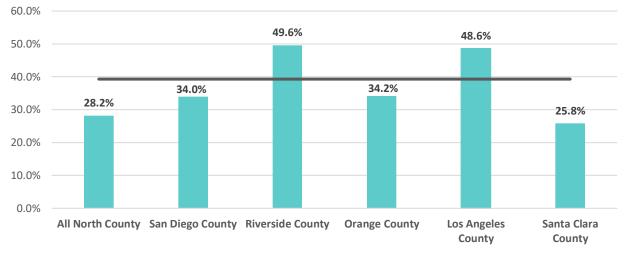


Figure 9. Hispanic Population (2018)¹⁴



State Average

¹³ U.S. Census Bureau, 2014–2018 American Community Survey 5-Year Estimates.

¹⁴ U.S. Census Bureau, 2014–2018 American Community Survey 5-Year Estimates.

SECTION 2: HEALTHCARE

Fewer than one in ten (8%) North County residents do not have access to insured healthcare. Insurance rates vary among subregions in North County; in North County Inland, 11% do not have health insurance while that rate is only 4% in North County Central Coast. North County's population with healthcare insurance is slightly above the averages for San Diego County and the United States, though lower than the state average.

WHY DO THESE INDICATORS MATTER?

Access to insured healthcare remains a challenge for many households across the U.S. Tracking healthcare coverage is important because a lack of coverage may substantially strain the household budgets and savings and decreases the region's overall economic resilience. Additionally, high rates of uninsured patients could negatively impact healthcare providers in North County, lowering their capacity to make the investments in infrastructure, new technologies, and expanding facilities and staff to aid the aging population.

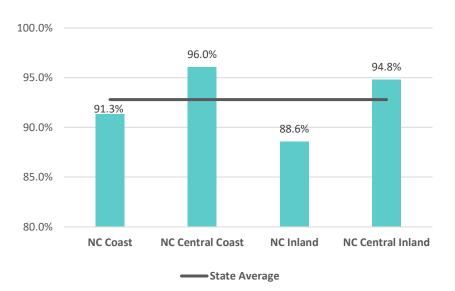


Figure 10. Healthcare Insured Rate in North County (2018)¹⁵

Healthcare insured rates vary greatly by educational attainment. Nearly three in ten North County residents without a high school diploma lack health insurance. The number of those without health insurance decreases to 13% among those who have obtained only a high school diploma.

¹⁵ U.S. Census Bureau, 2014–2018 American Community Survey 5-Year Estimates.

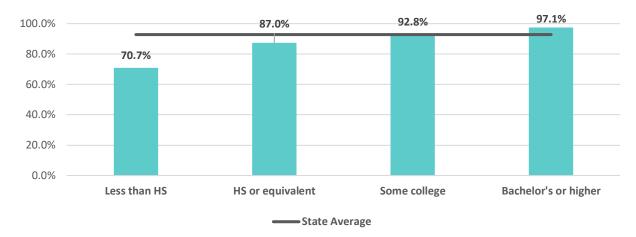
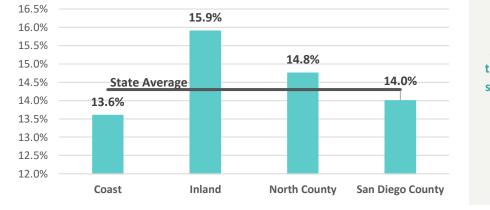


Figure 11. Healthcare Insured Rate by Educational Attainment

Table 3. Healthcare Insured Rate Comparison (2018)¹⁶

Los Angeles	United	San Diego	Riverside	All North	California	Orange	Santa Clara
County	States	County	County	County		County	County
91.0%	91.1%	91.6%	91.9%	92.0%	92.8%	93.0%	95.9%

Figure 12. Percent of population who has smoked cigarettes within the past 12 months 17*



North County has a greater percentage of those who had recently smoked cigarettes than the San Diego County and state averages.

¹⁶ U.S. Census Bureau, 2014–2018 American Community Survey 5-Year Estimates.

 $^{^{\}rm 17}$ "Live Well San Diego" County of San Diego Health and Human Services Agency

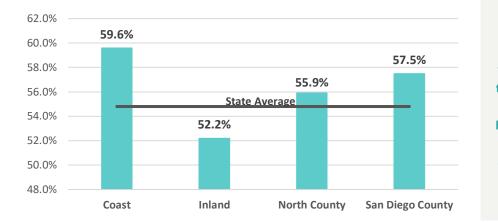


Figure 13. Percentage of population that spends two or more hours exercising a week^{18*}

While North County overall has a higher percentage of those who exercise regularly than the state average, North County Inland has a lower percentage than the state and county-wide averages.

SECTION 3: WORKFORCE & INCOME

There are nearly 46,000 workers who leave North County to go to work. More than half of these workers are in higher paying Management, Business, Science, and Art Occupations (Figure 13).

Within North County, North County Inland has the greatest number of workers who work outside of their sub-region; a net 28% of residents there work outside of the North County Inland sub-region. North County Coastal and Central Inland, in net, import 6% and 7% of their workforce from outside their sub-region (Figure 15).

Median household incomes vary considerably across North County; the median household income in North County Central Coast is nearly twice that in North County Inland.

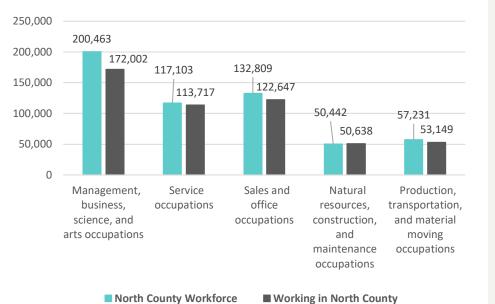
WHY DO THESE INDICATORS MATTER?

Because North County is surrounded by other hubs of employment (including the City of San Diego and Orange County), it is important to consider the net flow of workers in and out of North County and the types of occupations workers leaving and entering North County hold. This metric is particularly important for North County as it continues to transition towards being an independent and dynamic economy.

^{*}These subregions do not exactly match the subregional definitions utilized throughout the report. "Coast" combines both Central Coast and Coast, and "Inland" combines both Central Inland and Inland definitions throughout this report.

 $^{^{\}mbox{\tiny 18}}$ "Live Well San Diego" County of San Diego Health and Human Services Agency

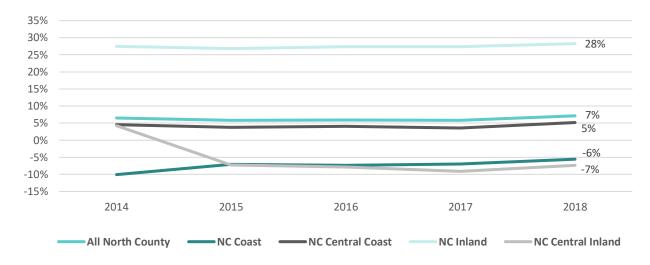
^{*}These subregions do not exactly match the subregional definitions utilized throughout the report. "Coast" combines both Central Coast and Coast, and "Inland" combines both Central Inland and Inland definitions throughout this report.





North County has about 28,000 residents working in "Management, Business, Science, and Arts" net jobs commuting to jobs outside of North County.

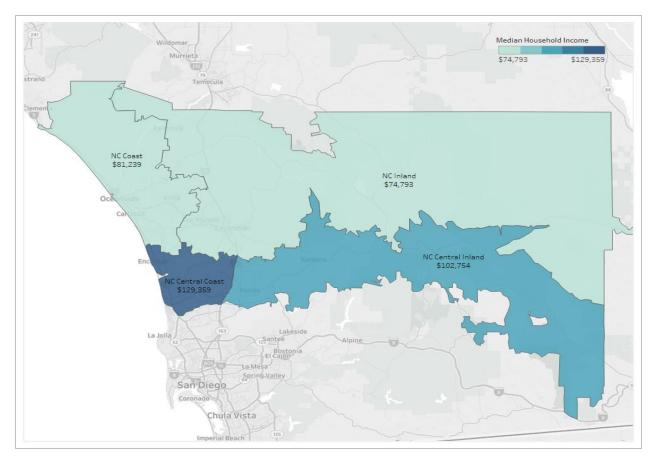




Median Household Incomes increased by over 10 percent in NC Inland from 2017 to 2018, the most of any area in North County.

¹⁹ Emsi 2020.1 QCEW and Non-QCEW

Figure 16. Median Household Income in North County (2018)²⁰



There are more than twice as many, proportionally, high-income households in North County Central Coast as are in North County Inland, even though the subregions are adjacent. There are affluent neighborhoods, such as Rancho Santa Fe or Fairbanks Ranch, that are less than 10 miles from economically challenged neighborhoods, such as northern Downtown Escondido.

²⁰ U.S. Census Bureau, 2014–2018 American Community Survey 5-Year Estimates.

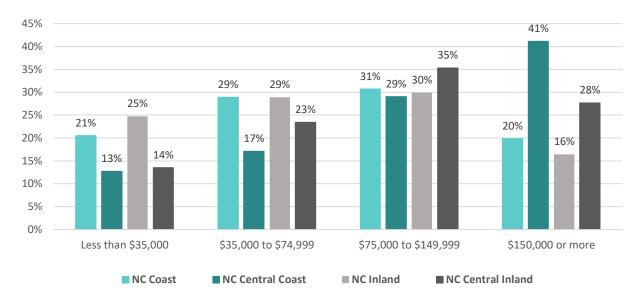


Figure 17. Median Annual Household Income Distribution (2018)²¹

North County has higher median household incomes than the rest of the county, state, and nation.

²¹ U.S. Census Bureau, 2014–2018 American Community Survey 5-Year Estimates.



Economy

The complexity and diversity of regional economies require analysis across numerous dimensions in order to achieve a comprehensive picture of the economy. The indicators in this section provide a variety of perspectives that, in aggregate, demonstrate the strengths, challenges, nuances, and resiliency of the North County economy and its residents.

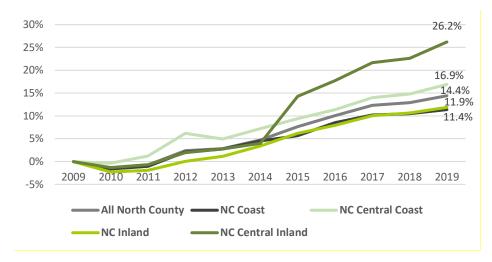
Beyond the traditional employment numbers, the indicators included in this section cover industry clusters, which highlight the intertwining relationships between firms and their supply chains. Analysis of clusters often reveals regional competitive advantages, as is the case with Information and Communication Technology cluster and Biotechnology and Biomedical Devices cluster in North County. Additionally, the Economy Indicators include job quality. During times of low unemployment, job quality is especially relevant as factors such as low wages, few benefits, and little opportunity for career advancement provide a more nuanced story about the economic wellbeing of residents in a region. The various dimensions in this section highlight the complexities of the North County economy and its workforce, and suggest that the region continues to grow, both in quantity and quality of jobs.

SECTION 1: OVERALL EMPLOYMENT

Between 2017 and 2019, employment in North County increased by 2.4%. This growth rate is about equivalent to that seen across broader San Diego County, but slightly slower than some nearby counties and California overall. Employment in North County Central Inland grew at the fastest rate of all North County sub-regions, adding more than 2,000 jobs over the past two years. Unemployment across North County is lower than nearly all surrounding regions and, at only 2.4%, suggests that employers are struggling to find workers in the tight labor market.

WHY DO THESE INDICATORS MATTER?

The number of jobs, as well as the change in number over time, is often the first metric used to evaluate any given economy. Analyzing the growth in employment and changes in unemployment provide immediate insights into the state of the economy. Consistent job growth, and particularly growth comparative to that seen in surrounding regions, signals that an economy is still growing and expanding.



North County Central Inland has experienced substantial growth since 2009; much of this fueled by companies like Northrup Grumman and Acutus Medical.

Figure 19. Unemployment Rate (December 2019)

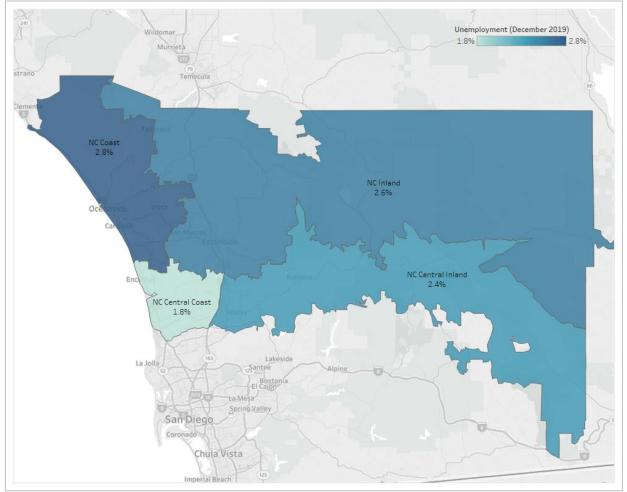


Figure 18. Employment Growth in North County (2009-2019)²²

 $^{\rm 22}$ Emsi 2020.1 QCEW and Non-QCEW

	Employment	Growth (2017-2019)	Unemployment (December 2019)
All North County	528,738	2.4%	2.6%
San Diego County	1,606,423	2.5%	2.8%
Orange County	1,685,666	2.8%	2.4%
Los Angeles County	4,644,754	2.3%	4.0%
Riverside County	771,953	4.9%	3.7%
Santa Clara County	1,141,789	3.5%	2.2%
California	18,125,523	2.8%	3.7%

Table 4. Employment (2019) and Employment Growth (2017-2019)

SECTION 2: INDUSTRY CLUSTERS & JOB QUALITY

Robust industry clusters play a crucial role in a region's economy. Industry clusters with relatively high concentrations of employment in North County, such as Defense, Aerospace, and Transportation Manufacturing, and Biotechnology and Biomedical Devices, have far-reaching effects on the region's economy and workforce.

Industry clusters have become the fundamental basis for understanding and evaluating regional economies. Industry clusters are closely affiliated industries that often work together in supply chains or through other relationships to create value that exceeds their individual parts. This grouping of industries allows for a quick identification of the keystone economic drivers in a region.

WHY DO THESE INDICATORS MATTER?

As noted above, industry clusters provide immediate insight into North County's largest drivers of employment and the interconnectedness of the region's firms. Industry clusters provide a macro-scale understanding of the past, present, and future for the region. Conversely, job quality analysis provides a micro-scale picture of what jobs in North County and the lives of those of hold those jobs—look like. In unison, these two metrics highlight some of the nuances of the North County economy.

Additionally, job quality provides a deeper understanding of what types of employment opportunities exist in North County, and the livelihoods that they offer. While North County continues to see an increase in tier 1 (higher-skill, higher-paying) jobs, nearly half (46%) of the region's employment are tier 3 (lower-skill, lower-paying) jobs. When viewed through the context of high costs of living in North County, it can be understood that a notable number of North County residents struggle to make ends meet. Between 2009 and 2019, Biotechnology and Biomedical Devices added more than 6,300 jobs. A majority of these jobs were in Medical Laboratories, Electromedical and Electrotherapeutic Apparatus Manufacturing, and Research and Development in Biotechnology.

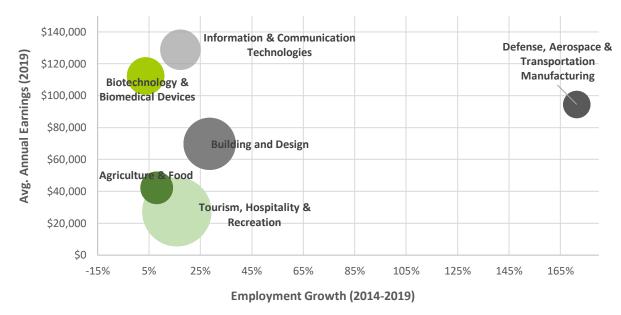


Figure 20. High-Concentration Industry Clusters in North County^{*23}

*Size of bubble is relative to the number of jobs in 2019

Of the high-concentration industry clusters, four out of six saw strong employment growth between 2014 and 2019.

²³ Emsi 2020.1 QCEW and Non-QCEW

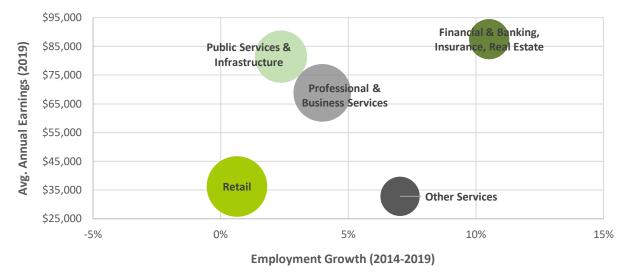


Figure 21. Average Concentration Industry Clusters in North County *24

*Size of bubble is relative to the number of jobs in 2019

Healthcare continued to see strong growth in North County, and Home Healthcare Services accounted for a substantial portion of this growth.

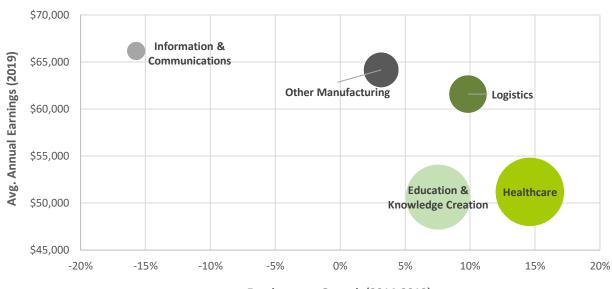


Figure 22. Low-Concentration Industry Clusters in North County*25

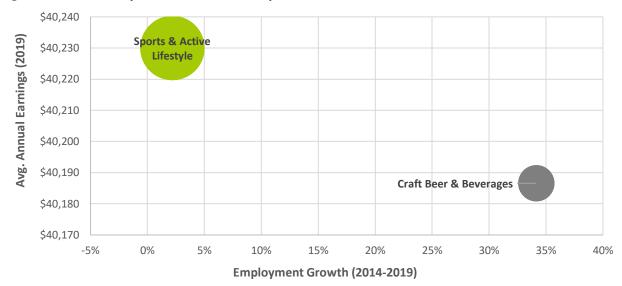
Employment Growth (2014-2019)

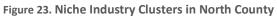
*Size of bubble is relative to the number of jobs in 2019

²⁴ Emsi 2020.1 QCEW and Non-QCEW

²⁵ Emsi 2020.1 QCEW and Non-QCEW

Craft Beer and Beverages have continued to grow across North County, adding more than 1,000 jobs between 2014-2019.



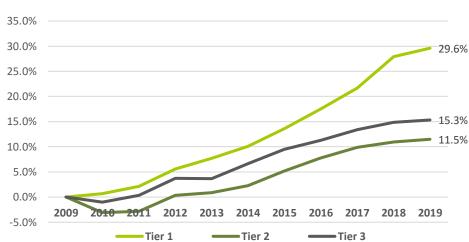


*Size of bubble is relative to the number of jobs in 2019

Job Quality

An analysis of job quality provides an understanding of the types of jobs and workers in North County, as well as the typical range of pay associated with those jobs. These details add context to general employment numbers and reveal insights into the opportunities available to the workforce, the workforce's ability to earn living wages, and economic resilience.

TIER 1	TIER 2	TIER 3
OCCUPATIONS	OCCUPATIONS	OCCUPATIONS
Tier 1 occupations are typically the highest-paying, highest-skilled occupations in the economy. This occupational category includes positions such as managers (e.g., Chief Executives and Sales Managers), professional positions (e.g., Lawyers and Physicians), and highly skilled technology occupations, such as scientists, engineers, computer programmers, and software developers.	Tier 2 occupations are typically the middle-skill, middle-wage occupations. This occupational category includes positions such as technicians, teachers, office and administrative positions (e.g., Accounting Clerks and Secretaries), manufacturing, operations, and production positions (e.g., Assemblers, Electricians, and Machinists).	Tier 3 occupations are typically the lowest-paying, lowest-skilled occupations that have historically provided the largest portion of employment in the region. These occupations include positions such as security guards, food service and retail positions, building and grounds cleaning positions (e.g., Janitors), and personal care positions (e.g., Home Health Aides and Child Care Workers).



Representation by race and ethnicity across job tiers is not equal. Asian individuals are overrepresented among tier 1 jobs while **Hispanic or Latino** individuals are overrepresented among tier 3 jobs.

Figure 24. Growth in Employment by Occupational Tier (2009-2019)²⁶

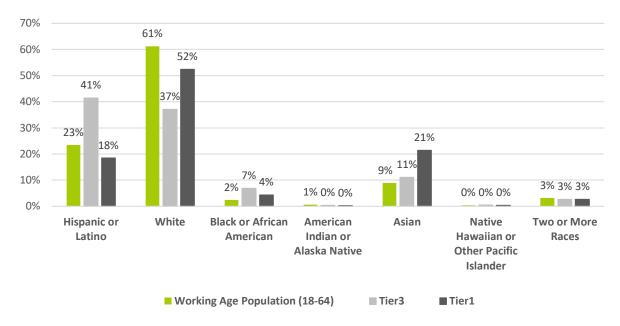


Figure 25. Racial and Ethnic Representation by Occupational Tier (2019)

Aircraft Manufacturing and Electromedical and Electrotherapeutic Apparatus Manufacturing industries added the most tier 1 jobs between 2009-2019.

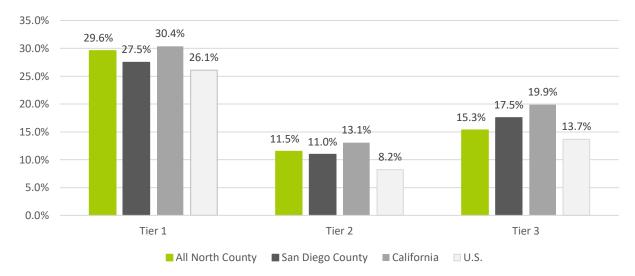


Figure 26. Growth by Occupational Tier (2009-2019)²⁷

²⁷ Emsi 2020.1 QCEW and Non-QCEW

Table 5. Job Quality Composition by Subregion (2019)

	Tier 1	Tier 2	Tier 3
NC Coast	24.7%	30.2%	45.1%
NC Central Coast	27.4%	26.3%	46.3%
NC Inland	19.4%	32.6%	48.0%
NC Central Inland	25.8%	31.3%	42.9%

Table 6. Job Quality Composition (2019)

	Tier 1	Tier 2	Tier 3
All North County	24.1%	30.1%	45.8%
San Diego County	25.3%	29.7%	44.9%
California	23.1%	30.0%	46.8%
United States	21.8%	32.8%	45.4%

SECTION 3: ECONOMIC DISTRESS

Economic distress requires an examination of both the challenges households are facing in the current economic environment as well as an assessment of economic resilience and how the region can endure and recover from an economic downturn.

While poverty rates are considerably higher in certain geographic pockets around North County, the relatively high regional-specific costs in North County mean that living wages are considerably higher than national rates. Living wages, in comparison to poverty rates, include regional differences in costs of housing, food, energy, and other essentials. The living wage in North County is about \$69,000 per year for a family of four (one

WHY DO THESE INDICATORS MATTER?

North County is among the more expensive regions to live in in the United States. The high costs of living mean that many families may struggle to meet other daily household needs. It likely impacts savings rates and the ability of individuals and families to accumulate household wealth and stability. A sizable population that is struggling to make ends meet can also suppress local economies, as depressed purchases of goods and services can have multiplier effects throughout the region.

parent working). This means that at least 29% -- nearly a third of households—are likely struggling to get by. This is further evidenced by the fact that it would take about two tier-3 jobs (lower-skill, lower paying) or about one-and-a-fifth tier 2 jobs for a family of four (one parent working) to achieve the living wage in North County.

San Diego County's relatively high debt-to-income ratio is also a cause for concern as we consider economic resilience; on average, households in San Diego County have nearly \$2 of debt for every dollar of annual income.²⁸ Furthermore, the decline in this ratio—a trend observed nationally and statewide—is occurring at a slower rate than regional neighbors such as Orange and Los Angeles Counties.

Living wages are calculated by factoring the local costs of food, childcare, medical expenses, housing, transportation, and other factors. Poverty rates do not account for these local differences.

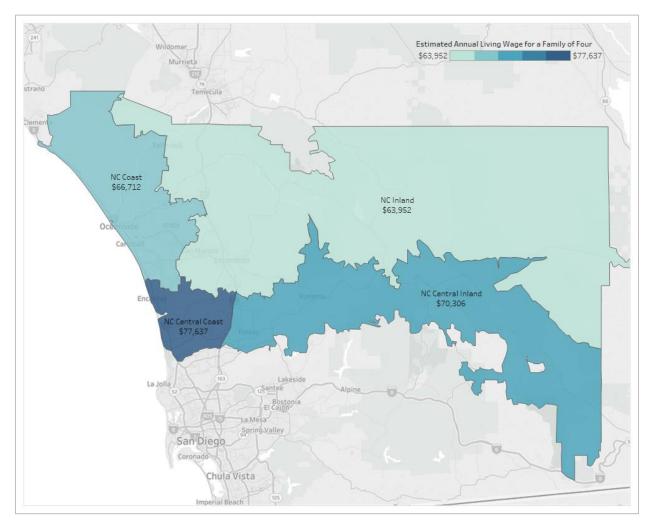


Figure 27. Estimated Annual Living Wage for Family of Four in North County (2018)²⁹

²⁸ It is worth noting that this figure does not include student loan debt—a factor which is increasing in scale across the country.

 $^{^{\}rm 29}$ Estimates for Family of Four (one adult working, two children)

Median household incomes, particularly in North County Coast and Inland, are not much higher than the living wages for these regions.

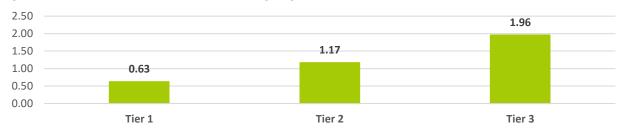


Figure 28. Number of Jobs Needed to Achieve a Living Wage

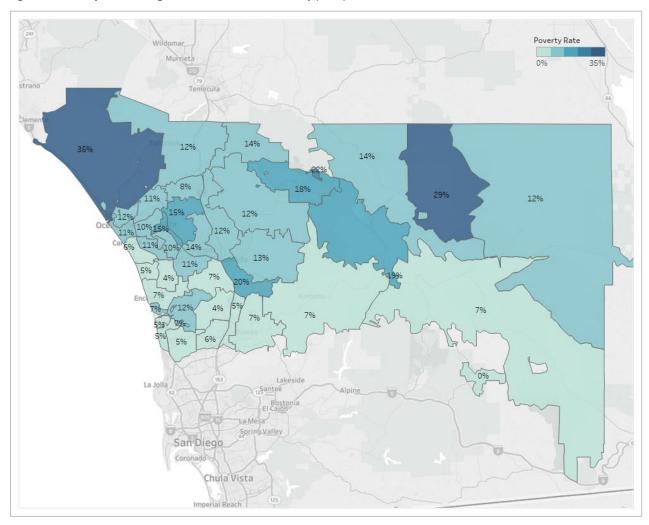


Figure 29. Poverty Rate Among All Residents in North County (2018)³⁰

Source: MIT Living Wage Calculator. <u>http://livingwage.mit.edu/</u>

 $^{\scriptscriptstyle 30}$ US Census Bureau, 2013–2017 American Community Survey 5-Year Estimates.

San Diego County households have a debt-to-household income ratio that is greater than that in surrounding counties and the state. High debt-to-income ratios can hamper resilience in the event of economic downturn.



Figure 30. Household Debt-to-Income Ratio (2018)^{31 32}

³¹ Board of Governors, United States Federal Reserve, 1999-2018.

³² These ratios do not include student loan debt.



Innovation

Innovation is a buzzword that is increasingly used in hyperbole, but it remains invaluable to a region's economy. The creation of new products and services is paramount to North County's economy as it has developed industries, such as Biotechnology, Genomics, and Information and Communication Technology, both in conjunction with and independently of broader San Diego County. New products and services generate new sources of employment, attract funding and investors, and draw global attention to North County.

Innovation can take many forms, and thus requires a number of metrics for proper assessment. This section of indicators includes metrics such as venture capital raises, number of regional businesses, research and development funding, and patent approvals by inventors living in North County. Collectively, these indicators show that innovation in North County continues to rise across stages of product development from the earliest stages (research and development) to final product development and scaling of production (late-stage venture capital).

SECTION 1: INNOVATION FUNDING

Venture capital funding is an indicator for a range stages of innovation and includes everything from grants that support early stages of experimenting and prototyping to later-stage development and commercialization funded through IPOs and venture capital. Figure 32 shows the steep climb of total innovation funding raised by businesses headquartered in North County.

In all, businesses in North County attracted more than \$2.6 billion in innovation funding between 2014 and 2019. The coastal sub-regions (North County Coast and Central Coast) tended to draw the most innovation funding. Carlsbad attracted more than \$1.7 billion alone in innovation funding, while Encinitas acquired more than \$345 million.

WHY DO THESE INDICATORS MATTER?

Innovation funding captures a broad swath of innovation activity across a range of product development stages. Since funding is critical to virtually any innovative activity, the presence of it is indicative of innovation.

The largest capital raise in 2019 was a \$100 million Series A raise for CommonGrounds Workspace. CommonGrounds Workspace is headquartered in Carlsbad.

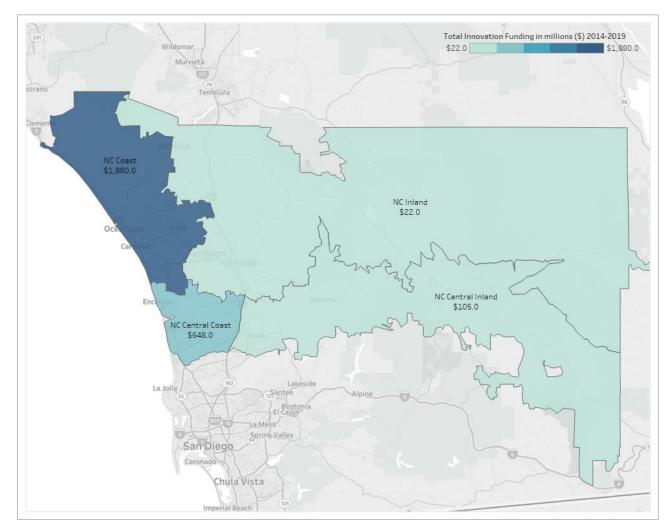
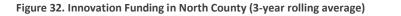
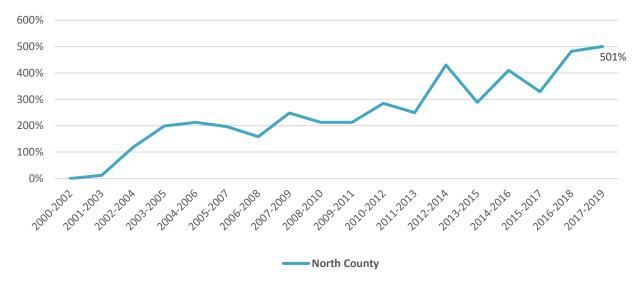


Figure 31. Total Innovation Funding in North County from 2014 to 2019³³

³³ Crunchbase





SECTION 2: STARTUPS AND ENTREPRENEURIALISM

The growth in the number of businesses in a region is an indicator of a region's business climate. Business growth in North County, as well as broader San Diego County, has been robust. North County Coast and Central Coast have seen the greatest increase in number of business establishments from 2012 to 2017, each growing by 13%. The number of North County Inland businesses grew at a little under 11%, which was slower than the North County average (12%). North County Central Inland saw the slowest growth in business counts, increasing by less than 7% during this time. San Diego County's business birth-to-death ratio highlights that the County's business growth has trended closely with, though at a slightly higher proportion than, that of the overall state.

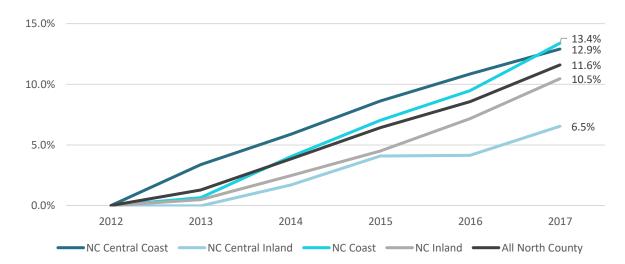
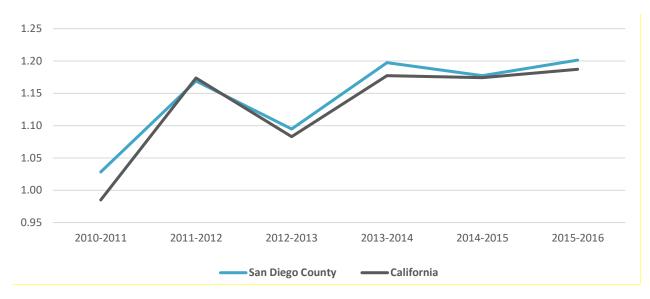


Figure 33. Net Growth in Number of Businesses, 2012-2017





SECTION 3: Research and Development

San Diego County and North County are increasingly hubs for research and development activities, which is often the source of many start-ups and entrepreneurs. UC San Diego was the greatest source of R&D expenditures, receiving and granting more than \$1.1 billion for research and development in 2017. North County residents received a record amount of Small Business Innovation Research (SBIR) and Small Business technology Transfer (STTR) funding in 2018, receiving more than \$4.8 million in research grants.

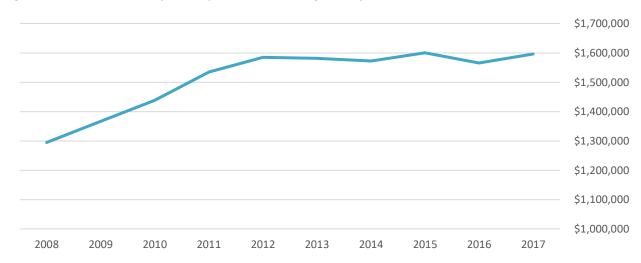


Figure 35. Research and Development Expenditures in San Diego County Universities (\$1,000s)

The largest value SBIR/STTR grant in 2018 in North County was for development of a companion robot to prevent neuro-cognitive decline (such as Alzheimer's or dementia). Advanced Brain Monitoring, the grant recipient, received \$410,000 in research funding.

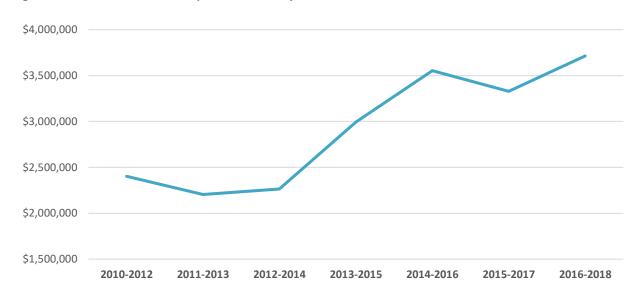


Figure 36. SBIR and STTR Grant Receipts in North County

SECTION 4: PATENTS

Patents are one of the earliest steps an inventor or entrepreneur takes when creating a novel product or design. Patents often lead to new products, new businesses, and even encourage other new ideas. The number of approved patents by North County inventors more than doubled between 2006 and 2019, suggesting that the region's inventiveness and entrepreneurialism continues to grow.

WHY DOES THIS MATTER?

Patents are good leading indicators of innovation since they are often one of the first steps an inventor or entrepreneur takes upon coming up with a new invention, product, or technique. North County Coast had the greatest number of patents by residents granted in 2019. Carlsbad and Encinitas were the most common locations.

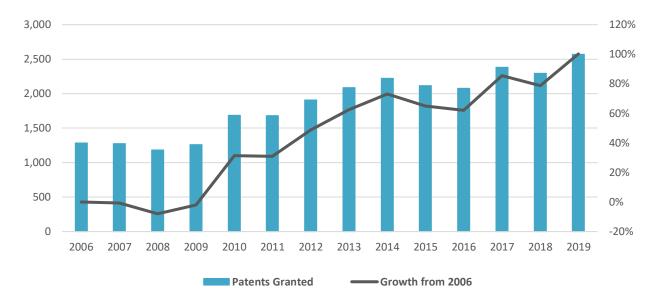


Figure 37. Approved Patents by Inventors in North County 2006-2019³⁴

³⁴ USPTO PatentsView Data Query. Search was done on the inventor database using inventor last known location by city.



Education

Education is increasingly important in the world of work. As technology plays a growing role both in and out of the office, a population that can learn, communicate, understand new technologies, and think critically is crucial to North County's future workforce. These indicators address the educational attainment of the current working population, as well as the educational success and challenges of the youth and young adults that represent the future workforces of North County.

In aggregate, these metrics highlight North County's success in education. More than four-in-ten adults have a bachelor's degree or advanced degree, and the proportion of adults without a high school diploma is notably lower

than surrounding counties. North County's current students are also doing relatively well in their educational pursuits, exceeding state proficiency averages of in both Math and English Language Arts (ELA).

However, a close examination of these indicators suggests this success is not uniform across North County. North County Coast high school students average a 13% dropout rate among their 4-year cohort, and all North County sub-regions, except for North County Central Inland, had a lower percentage of students who met the UC/CSU requirements than the statewide average.

WHAT ARE WE MEASURING & WHY DOES IT MATTER?

The North County Education Indicators include the current educational attainment of the adult population, as well as a substantial examination of key metrics along the education pipeline, ranging from youth and young adults to college graduates. Education is increasingly important in the world of work, and the educational progress and success of North County's youth will play a substantial role in the region's future.

SECTION 1: EDUCATIONAL ATTAINMENT

North County has an exceptionally well-educated population. More than 43% of North County's population 25 and older have a bachelor's degree or higher. This rate is considerably higher than statewide average (35%) and comparable counties, with the exception of Santa Clara County. High rates of educational attainment among the working aged population is important to economic development, as it signals to businesses and entrepreneurs that the region has an adequate workforce to support their talent needs.

WHY DOES THIS MATTER?

A region's educational attainment often provides insights into the region's workforce and workforce potential. A highly educated adult population, for example as seen in North County, suggests that the local workforce is likely well equipped to support innovative and technology-based industries that require advanced degrees.

North County has a high percentage of adults with post-graduate degrees, driven predominantly by the North County Central Coast.

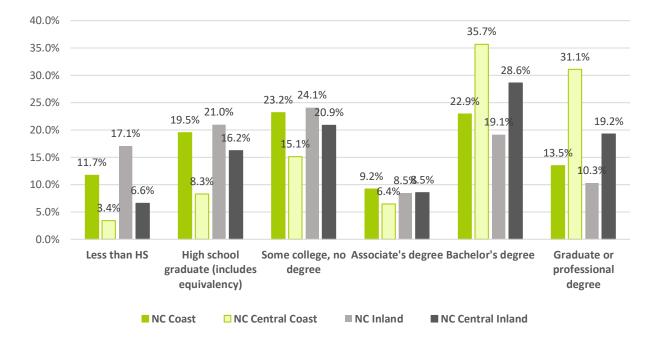


Figure 38. Educational Attainment for Working Aged Adults (25 and older) in North County (2018)³⁵

³⁵ U.S. Census Bureau, 2014–2018 American Community Survey 5-Year Estimates.

	No High School Diploma	High School Graduate	Some College, No Degree	Associate Degree	Bachelor's Degree	Postgraduate Degree
All North County	10.6%	16.9%	21.2%	8.3%	25.6%	17.5%
San Diego County	12.7%	18.5%	22.3%	8.2%	23.1%	15.3%
Orange County	13.9%	17.2%	20.1%	7.8%	26.4%	14.7%
Los Angeles County	20.6%	20.6%	19.1%	7.1%	21.3%	11.2%
Riverside County	16.7%	29.3%	23.7%	8.2%	14.2%	8.1%
Santa Clara County	10.8%	13.7%	14.5%	7.3%	28.4%	25.4%
California	16.2%	20.7%	20.8%	8.0%	21.3%	12.9%

Table 7. Educational Attainment for Working Aged Adults (25 and older) Comparison (2018)³⁶

SECTION 2: PERFORMANCE & COMPLETIONS

Students in all subregions across North County scored above the state averages both in Math and English Language Arts proficiency. Furthermore, North County proficiency averages tend to be higher than many neighboring counties. Meanwhile, North County continues to observe a rapid increase in STEM graduation from California State University San Marcos and its two community colleges.

WHY DOES THIS MATTER?

Statewide test scores indicate that higher rates of students in North County are at least proficient in the critical subjects of Math and English Language Arts. Additionally, North County's growing number of graduates in STEM programs suggest that increasing numbers of students have foundational skills that will better prepare them for the jobs of the future.

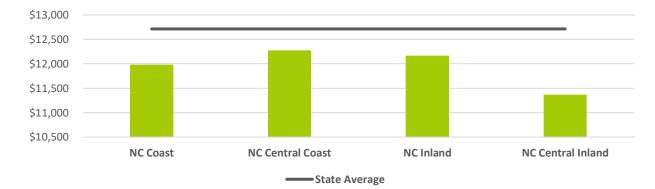


Figure 39. Average Spending per Student (2017-2018)

³⁶ U.S. Census Bureau, 2014–2018 American Community Survey 5-Year Estimates.

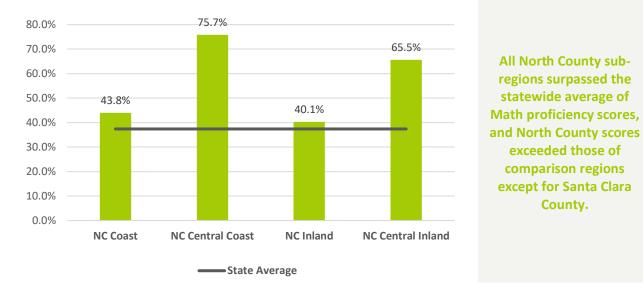
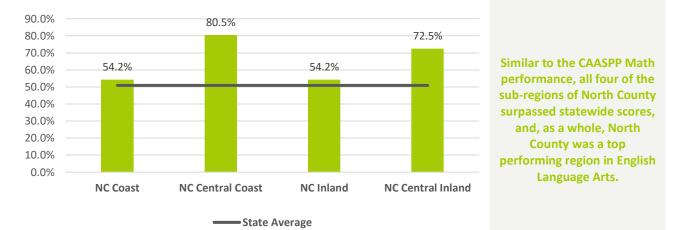


Figure 40. CAASPP Math Proficiency in North County (2018-2019)³⁷

Table 8. CAASPP Math Proficiency Comparison (2018-2019)³⁸

Riverside	California	Los Angeles	San Diego	Orange	All North	Santa Clara
County		County	County	County	County	County
34.10%	37.40%	39.10%	45.00%	50.40%	52.70%	56.60%

Figure 41. CAASPP English Language Arts Proficiency in North County (2018-2019)³⁹



³⁷ CA Ed Data

³⁸ CA Ed Data

³⁹ CA Ed Data

Riverside	Los Angeles	California	San Diego	Orange	All North	Santa Clara
County	County		County	County	County	County
47.60%	50.20%	50.90%	56.60%	59.50%	62.70%	63.00%

Table 9. CAASPP English Language Arts Proficiency Comparison (2018-2019)⁴⁰

Vista Unified School district had among the highest dropout rates — 20% of High School students within the same four-year cohort dropped out of school.

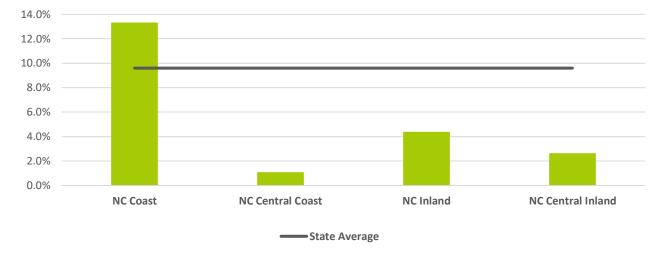


Figure 42. High School Dropout Rate (2017-2018)

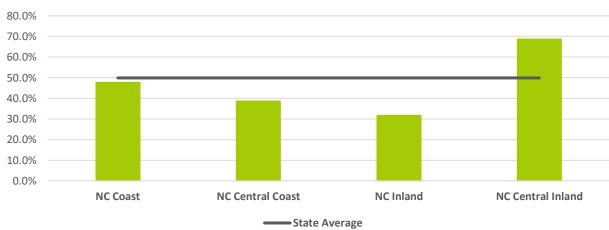


Figure 43. Meeting UC/CSU Requirements (2017-2018)

In the 2018-2019 school year, California State University San Marcos accounted for 36% of STEM degrees in North County. Palomar College and MiraCosta College each accounted for 24% and 21% of STEM degrees.

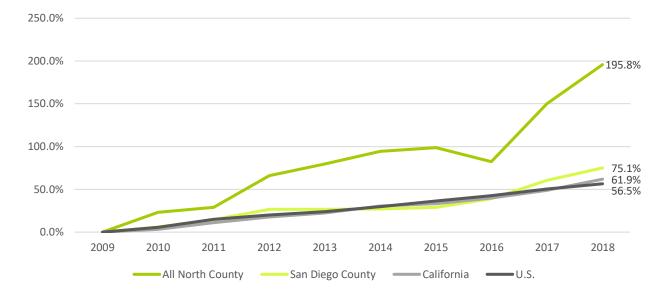


Figure 44. STEM Annual Degree Completions in North County (2009-2018)⁴¹

Table 10. STEM Annual Degree Completions (2009-2018)

	Completions (2018)	2009-2018 Growth
All North County	1,127	195.8%
San Diego County	11,624	75.1%
California	99,688	61.9%
U.S.	841,728	56.5%

⁴¹ Emsi 2019.1 2019.1 QCEW and Non-QCEW

SECTION 3: DISADVANTAGED POPULATIONS

North County generally has lower levels of disadvantaged student populations - including those affected by homelessness, those who are learning English, and those who receive free or reduced-price meals – than the state averages. North County Inland is the only subregion that exceeds a state average on a Disadvantaged Populations metric, with 20.7% of students considered English language learners.

WHY DOES THIS MATTER?

Knowing the number and location of students with disadvantages is the first step in providing additional support and services to give students their best chance at success.

Overall, North County has a lower percentage of homeless students than the state average, though North County Coast remains slightly above the state average.

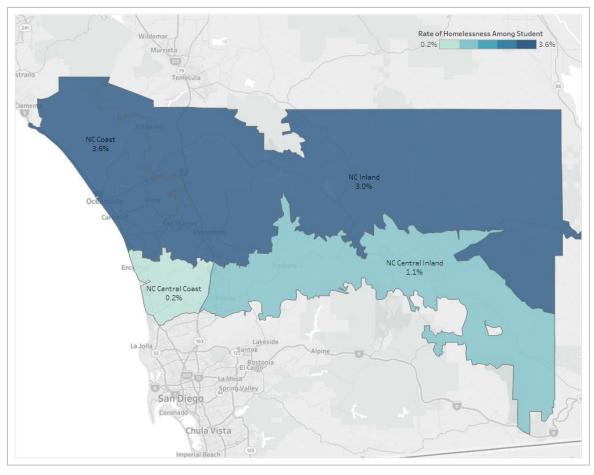


Figure 45. Student Homeless Population in North County (2018-2019)⁴²

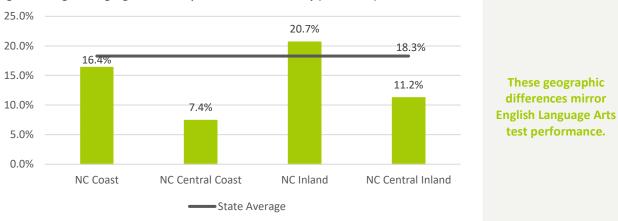


Figure 46. English Language Learner Population in North County (2018-2019)⁴³

Table 11. English Language Learner Population Comparison (2018-2019)⁴⁴

All North	California	Riverside	Los Angeles	San Diego	Santa Clara	Orange
County		County	County	County	County	County
15.5%	18.3%	18.4%	18.8%	19.9%	21.9%	22.1%

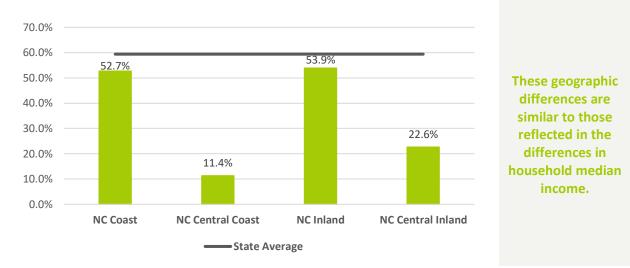


Figure 47. Students Who Receive Free or Reduced-Price Meals in North County (2018-2019)⁴⁵

⁴³ CA Ed Data

⁴⁴ CA Ed Data

⁴⁵ CA Ed Data

Table 12. Students Who Recei	ive Free or Reduced-Price	Meals Comparison	(2018-2019)46
Table 12. Students who here	we free of Reduced-Frice	ivieals comparisor	(2010-2019)

Santa Clara	All North	Orange	San Diego	California	Riverside	Los Angeles
County	County	County	County		County	County
35.9%	40.8%	48.8%	50.7%	59.4%	64.9%	68.6%

⁴⁶ CA Ed Data



Place

Anyone who has lived, worked, or even visited North County knows it is special. But it is not without its challenges. High demand for North County's quality of life translates to higher housing costs, growing rental rates for commercial space, and crowded roads. The Place Indicators evaluate the changes in these areas in order to develop an understanding of how these factors change and impact quality of life.

Tracking and evaluating these Place Indicators is vital, as many of these aspects have far-reaching effects that flow beyond simply paying more for rent or putting

WHAT ARE WE MEASURING & WHY DOES IT MATTER?

The North County Place Indicators provide metrics that highlight crucial aspects of quality of life. Quality of life is a primary driver of economic development, and it continues to play a crucial role in North County's success in drawing top businesses and talent. These indicators also provide a glimpse of some of North County's greatest challenges, as issues such as the cost of housing and commuting times can make the region less accessible, compound inequalities, and erode quality of life for residents, workers, and visitors to the region.

additional mileage on a vehicle. These factors often play into one another and can grow to be detrimental to a region. High housing costs make workers commute from further away, increasing traffic. If either of these factors reach a critical point, prospective employers and entrepreneurs may decide to avoid North County. Given that these factors can interact and negatively shape a region, it is critical to monitor these indicators.

SECTION 1: HOUSING

The cost of living and working in North County remains high. Median home sale prices in North County are among the highest among comparative regions, surpassed only by Santa Clara County. North County has a relatively low share of residents who rent their domiciles, but of those that do rent, nearly half (47%) spend 35% or more of their income on housing. High costs of housing can make living in a region unsustainable for some and can contribute to issues for employers such as hiring and retention, particularly of lower-wage workers.

WHY DOES THIS MATTER?

Housing is often the largest expense for households. Given North County's relatively high housing costs, it is important to track housing costs, availability, and vacancy. These metrics provide a picture of affordability and sustainability in the region, particularly for the populations that are already struggling to make ends meet.

Housing availability and relative costs also play a role in economic development. Businesses and entrepreneurs are less likely to relocate or start a business in an area where the costs of housing require substantial salary increases to maintain standards of living. Additionally, high housing costs can impact talent, as workers may choose one job over another if one has substantially lower housing costs, provided all other aspects are constant. Given the role that housing can play in economic development, these Indicators are key for North County.

North County's Central Coast median house sale price is the higher than all localities included in this report, with exception of Santa Clara County.

	Median House Sale Price (2019) ⁴⁸	Homeowner Vacancy	Rental Vacancy	Renter-Occupied Housing Units (% of Occupied Units)
All North County	\$733,577	1.0%	3.2%	36.1%
NC Coast	\$645,257	1.1%	3.2%	41.0%
NC Central Coast	\$1,115,452	1.0%	2.7%	31.7%
NC Inland	\$567,919	1.2%	3.7%	37.0%
NC Central Inland	\$618,923	0.5%	3.0%	28.3%

Table 13. Housing Comparison (2018)47

⁴⁷ U.S. Census Bureau, 2014–2018 American Community Survey 5-Year Estimates and JobsEQ.

⁴⁸ Zillow Research, 2019 annual average.

Table 14. Regional Housing Comparison (2017)⁴⁹

	Median House Sale Price ⁵⁰	Homeowner Vacancy	Rental Vacancy	Renter-Occupied Housing Units (% of Occupied Units)
All North County	\$733,577	1.1%	3.2%	38.8%
San Diego County	\$588,741	1.1%	3.6%	46.9%
Los Angeles County	\$630,739	1.0%	3.2%	54.2%
Orange County	\$727,554	0.9%	3.2%	42.6%
Riverside County	\$388,787	1.9%	5.3%	34.2%
Santa Clara County	\$1,174,458	0.4%	3.5%	43.3%
California	\$549,671	1.2%	3.5%	45.4%
United States	\$240,224	1.7%	6.0%	36.2%

The poverty rate is an incomplete measure of economic distress as it is largely based on the cost of food and does not account for regional differences in housing costs and services such as childcare. These figures highlight that many renters—and even a number of homeowners—spend a large portion of their income on housing.

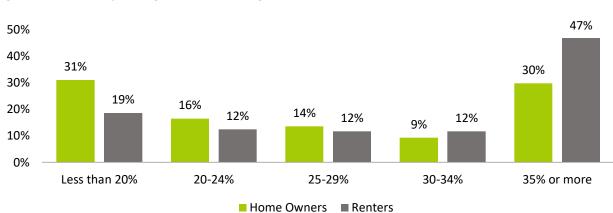


Figure 48. North County Housing Costs as a Percentage of Household Income (2018)⁵¹

⁴⁹ U.S. Census Bureau, 2014–2018 American Community Survey 5-Year Estimates and JobsEQ.

⁵⁰ Zillow Research, 2019 Annual Average.

⁵¹ U.S. Census Bureau, 2014–2018 American Community Survey 5-Year Estimates.

North County Coast and North County Central Inland host the highest proportion of renters spending 35% or more of their household income on rent at 50% and 52% of renters respectively.

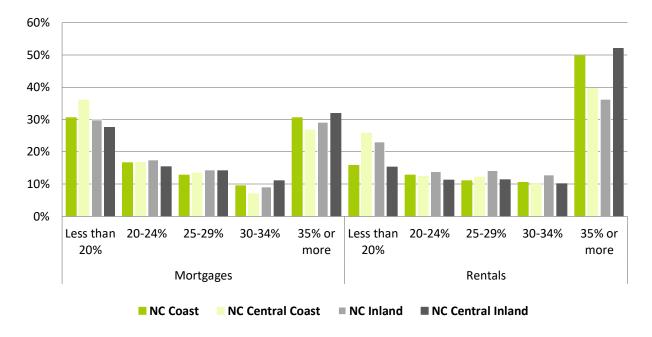


Figure 49. Housing Costs as a Percentage of Household Income (2018) by subregion⁵²

A visual comparison suggests there is a correlation between areas with higher poverty and high percentages of renters spending 35% or more on housing.

⁵² U.S. Census Bureau, 2014–2018 American Community Survey 5-Year Estimates.

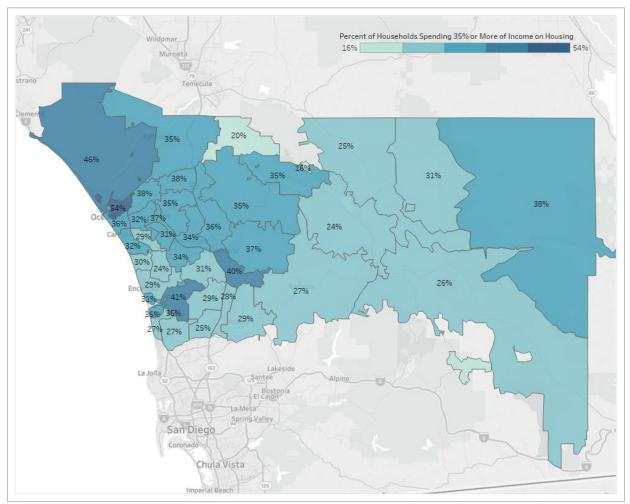
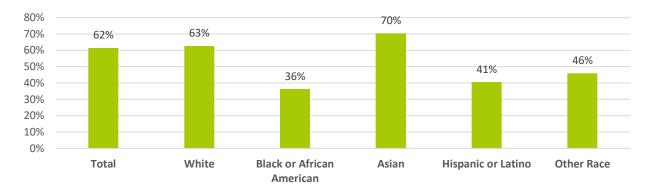


Figure 50. Proportion of Population in North County that Spends 35% or More of Household Income on Housing by Zip Code (2018). ⁵³

Homeownership rates vary notably across racial and ethnic lines; Asian residents are about twice as likely to be homeowners as African American residents in North County.

⁵³ U.S. Census Bureau, 2014–2018 American Community Survey 5-Year Estimates.





SECTION 2: TRANSPORTATION

Commute times in North County Inland have declined over the past five years, giving North County an average commute time equal to or lower than the surrounding areas and the state average. In fact, all sub-regions of North County now have lower commute times than the state average. North County residents' choice of commuting methods have also changed. Carpooling declined by 21% between 2013 and 2018, while walking and ridesharing have increased in popularity over the time period. Additionally, the number of North County residents that work from home increased 16% between 2013-2018.

WHY DOES THIS MATTER?

Commute times can play a pivotal role in economic development, as businesses and talent may be hesitant to expand or relocation in a region that is not easily accessible for the workforce.

Residents in North County Inland and North County Central Inland had the largest average commute times in the county, at 28 minutes each.

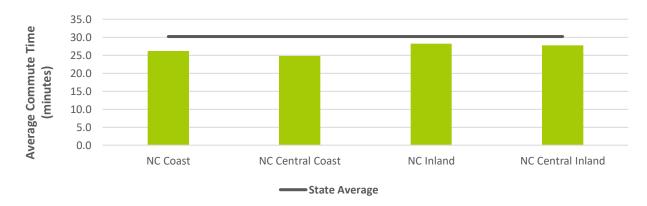


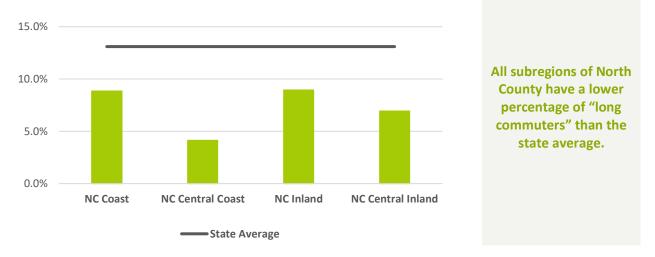
Figure 52. Mean Commute Time in North County (2018) 54

⁵⁴ U.S. Census Bureau, 2014–2018 American Community Survey 5-Year Estimates.

Table 15. Mean Travel Time to Work in Minutes (2018)⁵⁵

All North	San Diego	United	Orange	Santa Clara	California	Los Angeles	Riverside
County	County	States	County	County		County	County
26.6	26.6	27.1	28.3	29.6	30.2	32.3	33.6

Figure 53. Long Commuters (60 or minutes or more) (2018)⁵⁶

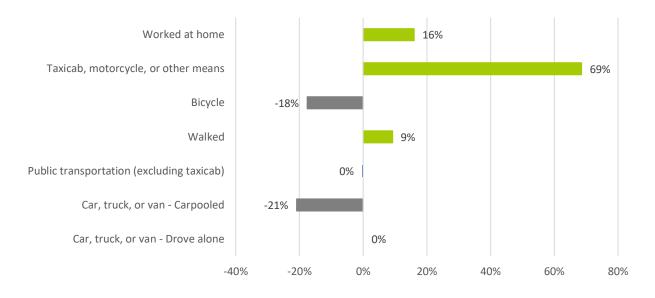


Likely a result of the increased prevalence of ridesharing, North County commuters taking a taxicab, motorcycle, or rideshare to work increased 69% from 2013 to 2018.

⁵⁵ U.S. Census Bureau, 2014–2018 American Community Survey 5-Year Estimates.

⁵⁶ U.S. Census Bureau, 2014–2018 American Community Survey 5-Year Estimates.

Figure 54. Change in Means of Commute Transportation in North County (2013-2018)⁵⁷



SECTION 3: COMMERCIAL REAL ESTATE

Office inventory in North County continued to increase in 2019, while the average rental rate per square foot remained relatively flat. North County Central Coast continues to have notably higher office rental rates than the rest of North County, while the other three sub-regions' rental rates have converged around the \$2.30 - \$2.45 dollar per square foot range. Office rental rates in North County Coast actually declined between 2018 and 2019.

WHY DOES THIS MATTER?

Commercial real estate metrics, such as average rent and changes in inventory serve as a signal that demonstrates the relative supply and demand for commercial space in an area. North County's steadily increasing rental rates paired with increasing inventory levels suggest that commercial real estate in North County is in growing demand—particularly in North County Central Coast.

Office inventory in North County has increased by 17% between 2010 and 2019, while housing prices in North County have consistently trended upwards over the same nine-year timeframe. One exception is North County Central Coast, where the average office rent per square foot increased by 40% between 2010 and 2019.

⁵⁷ U.S. Census Bureau, 2014–2018 American Community Survey 5-Year Estimates.

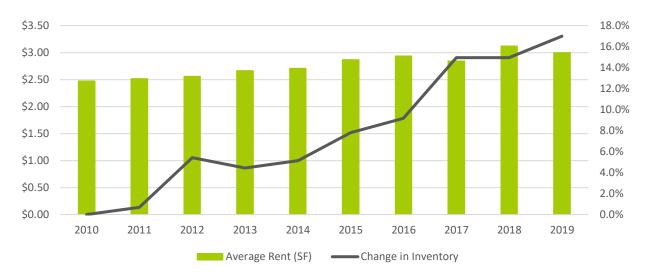


Figure 55. Average Office Rent & Change in Inventory in North County (2010-2019)⁵⁸

By far the most expensive market is in the Carmel Valley area in the North County Central Coast. This area has office rents that are almost double that of North County Coast and Central Inland. This reflects the robust demand from office users for space that is both proximate to the northern neighborhoods of the City of San Diego as well as other areas of North County.

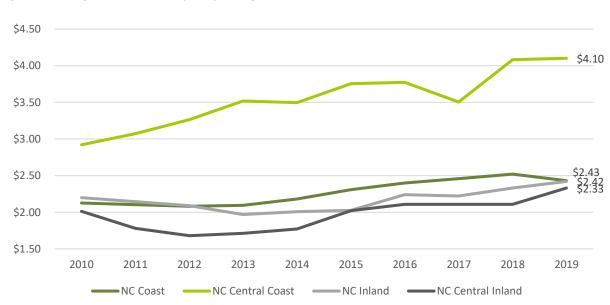


Figure 56. Average Office Rents (\$/sq. ft) by Subregion (2010-2019)⁵⁹

⁵⁸ Cushman & Wakefield Market Research, Voit Real Estate Services, and Lee Associates (Q4 2019).

⁵⁹ Cushman & Wakefield Market Research, Voit Real Estate Services, and Lee Associates (Q4 2019).

SECTION 4: WATER

Water is essential to life in North County and the region's history of drought is cause for greater attention to water usage and recycling. Since 2001, water usage per capita in San Diego County declined by more than a quarter. During this time, the share of recycled water usage more than doubled. These factors suggest that San Diego County has made substantial steps in the right direction towards sustainable water usage.

WHY DOES THIS MATTER?

In a climate like North County, water usage and recycling are particularly vital to the region's longterm health and way of life. Given the pivotal role that water plays in industry, recreation, and everyday life, it is the last, but certainly not the least important, indicator.

After years of progress in reducing per capita water use, rates began to climb in 2017 and 2018.

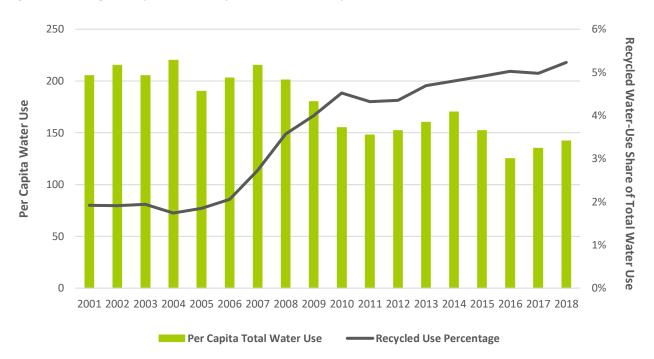


Figure 46. San Diego County Water and Recycled Water Use Per Capita⁶⁰

⁶⁰ San Diego County Water Authority

Appendix A: Research Methodology

Data compiled for this report were drawn from secondary data sources.

SECONDARY RESEARCH

Complete employment, gross regional product, population, and educational completion statistics datasets for San Diego North County were defined by zip code, census tracts, or classification of instructional programs (CIP) codes.

For this study, industry clusters were defined using the North American Industry Classification System (NAICS) codes.

Complete employment data was compiled from EMSI 2020 q.1 Class of Worker dataset for the zip code defined North County. The EMSI dataset includes state and federal level data sources and include QCEW and non-QCEW workers.

EMSI estimates are partial projections based on the Quarterly Census of Employment and Wages (QCEW) and Current Employment Statistics (CES) provided by the Bureau of Labor Statistics (BLS).

Complete employment datasets were also called directly from the Economic Development Department (EDD) and Bureau of Labor Statistics (BLS).

Population statistics were compiled from the U.S. Census Bureau's American Community Survey (ACS) 2018 5-year estimates for the census tract or zip code defined North County.

Patent data was compiled using the United States Patent and Trademark Office.

Appendix B: North County Cities and Zip Codes

NORTH COUNTY COAST REGION

СІТҮ	ZIP CODES
Carlsbad	92008, 92009, 92010, 92011
Oceanside	92049, 92051, 92052, 92054, 92056, 92057, 92058
Camp Pendleton	92055
Vista	92081, 92083, 92084, 92085

NORTH COUNTY CENTRAL COAST REGION

CITY	ZIP CODES
Cardiff by The Sea	92007
Del Mar	92014
Encinitas	92024
Solana Beach	92075
San Diego	92127, 92129, 92130
Rancho Santa Fe	92067, 92091

NORTH COUNTY CENTRAL INLAND REGION

CITY	ZIP CODES
Julian	92036
Poway	92064
Ramona	92065
San Diego	92128

NORTH COUNTY INLAND REGION

СІТҮ	ZIP CODES
Mount Laguna	91948
Bonsall	92003
Borrego Springs	92004
Escondido	92025, 92026, 92027, 92029, 92030, 92033, 92046
Fallbrook	92028, 92088
Pala	92059
Palomar Mountain	92060
Pauma Valley	92061
Ranchita	92066
San Luis Rey	92068
San Marcos	92069, 92078, 92079, 92096
Santa Ysabel	92070
Valley Center	92082
Warner Springs	92086

Appendix C: Industry Cluster Definitions

INFORMATION AND COMMUNICATIONS TECHNOLOGY (ICT)

NAICS CODE	DESCRIPTION	
334111	Electronic Computer Manufacturing	
334112	Computer Storage Device Manufacturing	
334118	Computer Terminal and Other Computer Peripheral Equipment Manufacturing	
334210	Telephone Apparatus Manufacturing	
334220	Radio and Television Broadcasting and Wireless Communications Equipment Manufacturing	
334290	Other Communications Equipment Manufacturing	
334310	Audio and Video Equipment Manufacturing	
334412	Bare Printed Circuit Board Manufacturing	
334413	Semiconductor and Related Device Manufacturing	
334416	Capacitor, Resistor, Coil, Transformer, and Other Inductor Manufacturing	
334417	Electronic Connector Manufacturing	
334418	Printed Circuit Assembly (Electronic Assembly) Manufacturing	
334419	Other Electronic Component Manufacturing	
334613	Blank Magnetic and Optical Recording Media Manufacturing	
334614	Software and Other Prerecorded Compact Disc, Tape, and Record Reproducing	
511210	Software Publishers	
517311	Wired Telecommunications Carriers	
517312	Wireless Telecommunications Carriers (except Satellite)	
517410	Satellite Telecommunications	
517911	Telecommunications Resellers	
517919	All Other Telecommunications	
518210	Data Processing, Hosting, and Related Services	

519110	News Syndicates
519120	Libraries and Archives
519130	Internet Publishing and Broadcasting and Web Search Portals
519190	All Other Information Services
541511	Custom Computer Programming Services
541512	Computer Systems Design Services
541513	Computer Facilities Management Services
541519	Other Computer Related Services

DEFENSE, AEROSPACE, AND TRANSPORTATION MANUFACTURING (DATM)

NAICS CODE	DESCRIPTION
325920	Explosives Manufacturing
332992	Small Arms Ammunition Manufacturing
332993	Ammunition (except Small Arms) Manufacturing
332994	Small Arms, Ordnance, and Ordnance Accessories Manufacturing
334511	Search, Detection, Navigation, Guidance, Aeronautical, and Nautical System and Instrument Manufacturing
334519	Other Measuring and Controlling Device Manufacturing
336111	Automobile Manufacturing
336112	Light Truck and Utility Vehicle Manufacturing
336120	Heavy Duty Truck Manufacturing
336211	Motor Vehicle Body Manufacturing
336212	Truck Trailer Manufacturing
336213	Motor Home Manufacturing
336214	Travel Trailer and Camper Manufacturing
336310	Motor Vehicle Gasoline Engine and Engine Parts Manufacturing
336320	Motor Vehicle Electrical and Electronic Equipment Manufacturing
336330	Motor Vehicle Steering and Suspension Components (except Spring) Manufacturing

336340	Motor Vehicle Brake System Manufacturing
336350	Motor Vehicle Transmission and Power Train Parts Manufacturing
336360	Motor Vehicle Seating and Interior Trim Manufacturing
336370	Motor Vehicle Metal Stamping
336390	Other Motor Vehicle Parts Manufacturing
336411	Aircraft Manufacturing
336412	Aircraft Engine and Engine Parts Manufacturing
336413	Other Aircraft Parts and Auxiliary Equipment Manufacturing
336414	Guided Missile and Space Vehicle Manufacturing
336415	Guided Missile and Space Vehicle Propulsion Unit and Propulsion Unit Parts Manufacturing
336419	Other Guided Missile and Space Vehicle Parts and Auxiliary Equipment Manufacturing
336510	Railroad Rolling Stock Manufacturing
336611	Ship Building and Repairing
336612	Boat Building
336991	Motorcycle, Bicycle, and Parts Manufacturing
336992	Military Armored Vehicle, Tank, and Tank Component Manufacturing
336999	All Other Transportation Equipment Manufacturing
423110	Automobile and Other Motor Vehicle Merchant Wholesalers
423120	Motor Vehicle Supplies and New Parts Merchant Wholesalers
423130	Tire and Tube Merchant Wholesalers
423140	Motor Vehicle Parts (Used) Merchant Wholesalers
423860	Transportation Equipment and Supplies (except Motor Vehicle) Merchant Wholesalers
-	

NAICS CODE	DESCRIPTION
325120	Industrial Gas Manufacturing
325193	Ethyl Alcohol Manufacturing
325194	Cyclic Crude, Intermediate, and Gum and Wood Chemical Manufacturing
325199	All Other Basic Organic Chemical Manufacturing
325311	Nitrogenous Fertilizer Manufacturing
325312	Phosphatic Fertilizer Manufacturing
325314	Fertilizer (Mixing Only) Manufacturing
325320	Pesticide and Other Agricultural Chemical Manufacturing
325411	Medicinal and Botanical Manufacturing
325412	Pharmaceutical Preparation Manufacturing
325413	In-Vitro Diagnostic Substance Manufacturing
325414	Biological Product (except Diagnostic) Manufacturing
333314	Optical Instrument and Lens Manufacturing
334510	Electromedical and Electrotherapeutic Apparatus Manufacturing
334512	Automatic Environmental Control Manufacturing for Residential, Commercial, and Appliance Use
334514	Totalizing Fluid Meter and Counting Device Manufacturing
334516	Analytical Laboratory Instrument Manufacturing
334517	Irradiation Apparatus Manufacturing
339112	Surgical and Medical Instrument Manufacturing
339113	Surgical Appliance and Supplies Manufacturing
339114	Dental Equipment and Supplies Manufacturing
339115	Ophthalmic Goods Manufacturing
339116	Dental Laboratories
423450	Medical, Dental, and Hospital Equipment and Supplies Merchant Wholesalers
423460	Ophthalmic Goods Merchant Wholesalers
424210	Drugs and Druggists' Sundries Merchant Wholesalers

BIOTECHNOLOGY AND BIOMEDICAL DESIGN (B&BD)

424910	Farm Supplies Merchant Wholesalers
541380	Testing Laboratories
541713	Research and Development in Nanotechnology
541714	Research and Development in Biotechnology (except Nanobiotechnology)
621511	Medical Laboratories

TOURISM, RECREATION, AND HOSPITALITY

NAICS CODE	DESCRIPTION
481111	Scheduled Passenger Air Transportation
481211	Nonscheduled Chartered Passenger Air Transportation
481219	Other Nonscheduled Air Transportation
483112	Deep Sea Passenger Transportation
483114	Coastal and Great Lakes Passenger Transportation
483212	Inland Water Passenger Transportation
485310	Taxi Service
485320	Limousine Service
485510	Charter Bus Industry
487110	Scenic and Sightseeing Transportation, Land
487210	Scenic and Sightseeing Transportation, Water
487990	Scenic and Sightseeing Transportation, Other
488111	Air Traffic Control
488119	Other Airport Operations
488190	Other Support Activities for Air Transportation
488210	Support Activities for Rail Transportation
532111	Passenger Car Rental
532112	Passenger Car Leasing
532120	Truck, Utility Trailer, and RV (Recreational Vehicle) Rental and Leasing

532284	Recreational Goods Rental
561510	Travel Agencies
561520	Tour Operators
561591	Convention and Visitors Bureaus
561599	All Other Travel Arrangement and Reservation Services
561920	Convention and Trade Show Organizers
711110	Theater Companies and Dinner Theaters
711120	Dance Companies
711130	Musical Groups and Artists
711190	Other Performing Arts Companies
711211	Sports Teams and Clubs
711212	Racetracks
711219	Other Spectator Sports
711310	Promoters of Performing Arts, Sports, and Similar Events with Facilities
711320	Promoters of Performing Arts, Sports, and Similar Events without Facilities
711410	Agents and Managers for Artists, Athletes, Entertainers, and Other Public Figures
711510	Independent Artists, Writers, and Performers
712110	Museums
712120	Historical Sites
712130	Zoos and Botanical Gardens
712190	Nature Parks and Other Similar Institutions
713110	Amusement and Theme Parks
713120	Amusement Arcades
713210	Casinos (except Casino Hotels)
713290	Other Gambling Industries
713910	Golf Courses and Country Clubs
713920	Skiing Facilities
713930	Marinas

713940	Fitness and Recreational Sports Centers
713950	Bowling Centers
713990	All Other Amusement and Recreation Industries
721110	Hotels (except Casino Hotels) and Motels
721120	Casino Hotels
721191	Bed-and-Breakfast Inns
721199	All Other Traveler Accommodation
721211	RV (Recreational Vehicle) Parks and Campgrounds
721214	Recreational and Vacation Camps (except Campgrounds)
721310	Rooming and Boarding Houses, Dormitories, and Workers' Camps
722310	Food Service Contractors
722320	Caterers
722330	Mobile Food Services
722410	Drinking Places (Alcoholic Beverages)
722511	Full-Service Restaurants
722513	Limited-Service Restaurants
722515	Snack and Nonalcoholic Beverage Bars

RETAIL

NAICS CODE	DESCRIPTION
425110	Business to Business Electronic Markets
425120	Wholesale Trade Agents and Brokers
441110	New Car Dealers
441120	Used Car Dealers
441210	Recreational Vehicle Dealers
441222	Boat Dealers
441228	Motorcycle, ATV, and All Other Motor Vehicle Dealers

441310	Automotive Parts and Accessories Stores
441320	Tire Dealers
442110	Furniture Stores
442210	Floor Covering Stores
442291	Window Treatment Stores
442299	All Other Home Furnishings Stores
443141	Household Appliance Stores
443142	Electronics Stores
444110	Home Centers
444120	Paint and Wallpaper Stores
444130	Hardware Stores
444190	Other Building Material Dealers
444210	Outdoor Power Equipment Stores
444220	Nursery, Garden Center, and Farm Supply Stores
445110	Supermarkets and Other Grocery (except Convenience) Stores
445120	Convenience Stores
445210	Meat Markets
445220	Fish and Seafood Markets
445230	Fruit and Vegetable Markets
445291	Baked Goods Stores
445292	Confectionery and Nut Stores
445299	All Other Specialty Food Stores
445310	Beer, Wine, and Liquor Stores
446110	Pharmacies and Drug Stores
446120	Cosmetics, Beauty Supplies, and Perfume Stores
446130	Optical Goods Stores
446191	Food (Health) Supplement Stores
446199	All Other Health and Personal Care Stores

447110	Gasoline Stations with Convenience Stores
447190	Other Gasoline Stations
448110	Men's Clothing Stores
448120	Women's Clothing Stores
448130	Children's and Infants' Clothing Stores
448140	Family Clothing Stores
448150	Clothing Accessories Stores
448190	Other Clothing Stores
448210	Shoe Stores
448310	Jewelry Stores
448320	Luggage and Leather Goods Stores
451110	Sporting Goods Stores
451120	Hobby, Toy, and Game Stores
451130	Sewing, Needlework, and Piece Goods Stores
451140	Musical Instrument and Supplies Stores
451211	Book Stores
451212	News Dealers and Newsstands
452210	Department Stores
452311	Warehouse Clubs and Supercenters
452319	All Other General Merchandise Stores
453110	Florists
453210	Office Supplies and Stationery Stores
453220	Gift, Novelty, and Souvenir Stores
453310	Used Merchandise Stores
453910	Pet and Pet Supplies Stores
453920	Art Dealers
453930	Manufactured (Mobile) Home Dealers
453991	Tobacco Stores

453998	All Other Miscellaneous Store Retailers (except Tobacco Stores)
454110	Electronic Shopping and Mail-Order Houses
454210	Vending Machine Operators
454310	Fuel Dealers
454390	Other Direct Selling Establishments

RETAIL

NAICS CODE	DESCRIPTION
425110	Business to Business Electronic Markets
425120	Wholesale Trade Agents and Brokers
441110	New Car Dealers
441120	Used Car Dealers
441210	Recreational Vehicle Dealers
441222	Boat Dealers
441228	Motorcycle, ATV, and All Other Motor Vehicle Dealers
441310	Automotive Parts and Accessories Stores
441320	Tire Dealers
442110	Furniture Stores
442210	Floor Covering Stores
442291	Window Treatment Stores
442299	All Other Home Furnishings Stores
443141	Household Appliance Stores
443142	Electronics Stores
444110	Home Centers
444120	Paint and Wallpaper Stores
444130	Hardware Stores
444190	Other Building Material Dealers

444210	Outdoor Power Equipment Stores
444220	Nursery, Garden Center, and Farm Supply Stores
445110	Supermarkets and Other Grocery (except Convenience) Stores
445120	Convenience Stores
445210	Meat Markets
445220	Fish and Seafood Markets
445230	Fruit and Vegetable Markets
445291	Baked Goods Stores
445292	Confectionery and Nut Stores
445299	All Other Specialty Food Stores
445310	Beer, Wine, and Liquor Stores
446110	Pharmacies and Drug Stores
446120	Cosmetics, Beauty Supplies, and Perfume Stores
446130	Optical Goods Stores
446191	Food (Health) Supplement Stores
446199	All Other Health and Personal Care Stores
447110	Gasoline Stations with Convenience Stores
447190	Other Gasoline Stations
448110	Men's Clothing Stores
448120	Women's Clothing Stores
448130	Children's and Infants' Clothing Stores
448140	Family Clothing Stores
448150	Clothing Accessories Stores
448190	Other Clothing Stores
448210	Shoe Stores
448310	Jewelry Stores
448320	Luggage and Leather Goods Stores
451110	Sporting Goods Stores

451120	Hobby, Toy, and Game Stores
451130	Sewing, Needlework, and Piece Goods Stores
451140	Musical Instrument and Supplies Stores
451211	Book Stores
451212	News Dealers and Newsstands
452210	Department Stores
452311	Warehouse Clubs and Supercenters
452319	All Other General Merchandise Stores
453110	Florists
453210	Office Supplies and Stationery Stores
453220	Gift, Novelty, and Souvenir Stores
453310	Used Merchandise Stores
453910	Pet and Pet Supplies Stores
453920	Art Dealers
453930	Manufactured (Mobile) Home Dealers
453991	Tobacco Stores
453998	All Other Miscellaneous Store Retailers (except Tobacco Stores)
454110	Electronic Shopping and Mail-Order Houses
454210	Vending Machine Operators
454310	Fuel Dealers
454390	Other Direct Selling Establishments

LOGISTICS

NAICS CODE	DESCRIPTION
423210	Furniture Merchant Wholesalers
423220	Home Furnishing Merchant Wholesalers
423410	Photographic Equipment and Supplies Merchant Wholesalers
423420	Office Equipment Merchant Wholesalers
423440	Other Commercial Equipment Merchant Wholesalers
423490	Other Professional Equipment and Supplies Merchant Wholesalers
423510	Metal Service Centers and Other Metal Merchant Wholesalers
423520	Coal and Other Mineral and Ore Merchant Wholesalers
423610	Electrical Apparatus and Equipment, Wiring Supplies, and Related Equipment Merchant Wholesalers
423620	Household Appliances, Electric Housewares, and Consumer Electronics Merchant Wholesalers
423690	Other Electronic Parts and Equipment Merchant Wholesalers
423830	Industrial Machinery and Equipment Merchant Wholesalers
423840	Industrial Supplies Merchant Wholesalers
423850	Service Establishment Equipment and Supplies Merchant Wholesalers
423910	Sporting and Recreational Goods and Supplies Merchant Wholesalers
423920	Toy and Hobby Goods and Supplies Merchant Wholesalers
423930	Recyclable Material Merchant Wholesalers
423940	Jewelry, Watch, Precious Stone, and Precious Metal Merchant Wholesalers
423990	Other Miscellaneous Durable Goods Merchant Wholesalers
424110	Printing and Writing Paper Merchant Wholesalers
424120	Stationery and Office Supplies Merchant Wholesalers
424130	Industrial and Personal Service Paper Merchant Wholesalers
424310	Piece Goods, Notions, and Other Dry Goods Merchant Wholesalers
424320	Men's and Boys' Clothing and Furnishings Merchant Wholesalers
424330	Women's, Children's, and Infants' Clothing and Accessories Merchant Wholesalers
424340	Footwear Merchant Wholesalers

424410	General Line Grocery Merchant Wholesalers
424420	Packaged Frozen Food Merchant Wholesalers
424430	Dairy Product (except Dried or Canned) Merchant Wholesalers
424440	Poultry and Poultry Product Merchant Wholesalers
424450	Confectionery Merchant Wholesalers
424460	Fish and Seafood Merchant Wholesalers
424470	Meat and Meat Product Merchant Wholesalers
424480	Fresh Fruit and Vegetable Merchant Wholesalers
424490	Other Grocery and Related Products Merchant Wholesalers
424510	Grain and Field Bean Merchant Wholesalers
424520	Livestock Merchant Wholesalers
424590	Other Farm Product Raw Material Merchant Wholesalers
424610	Plastics Materials and Basic Forms and Shapes Merchant Wholesalers
424690	Other Chemical and Allied Products Merchant Wholesalers
424710	Petroleum Bulk Stations and Terminals
424720	Petroleum and Petroleum Products Merchant Wholesalers (except Bulk Stations and Terminals)
424720 424920	Petroleum and Petroleum Products Merchant Wholesalers (except Bulk Stations and Terminals) Book, Periodical, and Newspaper Merchant Wholesalers
424920	Book, Periodical, and Newspaper Merchant Wholesalers
424920 424930	Book, Periodical, and Newspaper Merchant Wholesalers Flower, Nursery Stock, and Florists' Supplies Merchant Wholesalers
424920 424930 424940	Book, Periodical, and Newspaper Merchant Wholesalers Flower, Nursery Stock, and Florists' Supplies Merchant Wholesalers Tobacco and Tobacco Product Merchant Wholesalers
424920 424930 424940 424950	Book, Periodical, and Newspaper Merchant Wholesalers Flower, Nursery Stock, and Florists' Supplies Merchant Wholesalers Tobacco and Tobacco Product Merchant Wholesalers Paint, Varnish, and Supplies Merchant Wholesalers
424920 424930 424940 424950 424990	Book, Periodical, and Newspaper Merchant Wholesalers Flower, Nursery Stock, and Florists' Supplies Merchant Wholesalers Tobacco and Tobacco Product Merchant Wholesalers Paint, Varnish, and Supplies Merchant Wholesalers Other Miscellaneous Nondurable Goods Merchant Wholesalers
424920 424930 424940 424950 424990 424990 481112	Book, Periodical, and Newspaper Merchant WholesalersFlower, Nursery Stock, and Florists' Supplies Merchant WholesalersTobacco and Tobacco Product Merchant WholesalersPaint, Varnish, and Supplies Merchant WholesalersOther Miscellaneous Nondurable Goods Merchant WholesalersScheduled Freight Air Transportation
424920 424930 424940 424950 424990 42112	Book, Periodical, and Newspaper Merchant WholesalersFlower, Nursery Stock, and Florists' Supplies Merchant WholesalersTobacco and Tobacco Product Merchant WholesalersPaint, Varnish, and Supplies Merchant WholesalersOther Miscellaneous Nondurable Goods Merchant WholesalersScheduled Freight Air TransportationNonscheduled Chartered Freight Air Transportation
424920 424930 424940 424950 424990 481112 481212 482110	Book, Periodical, and Newspaper Merchant WholesalersFlower, Nursery Stock, and Florists' Supplies Merchant WholesalersTobacco and Tobacco Product Merchant WholesalersPaint, Varnish, and Supplies Merchant WholesalersOther Miscellaneous Nondurable Goods Merchant WholesalersScheduled Freight Air TransportationNonscheduled Chartered Freight Air TransportationRail transportation
424920 424930 424940 424950 424990 481112 481212 482110 483111	Book, Periodical, and Newspaper Merchant WholesalersFlower, Nursery Stock, and Florists' Supplies Merchant WholesalersTobacco and Tobacco Product Merchant WholesalersPaint, Varnish, and Supplies Merchant WholesalersOther Miscellaneous Nondurable Goods Merchant WholesalersScheduled Freight Air TransportationNonscheduled Chartered Freight Air TransportationRail transportationDeep Sea Freight Transportation
424920 424930 424940 424950 424990 481112 481212 482110 483111 483113	Book, Periodical, and Newspaper Merchant WholesalersFlower, Nursery Stock, and Florists' Supplies Merchant WholesalersTobacco and Tobacco Product Merchant WholesalersPaint, Varnish, and Supplies Merchant WholesalersOther Miscellaneous Nondurable Goods Merchant WholesalersScheduled Freight Air TransportationNonscheduled Chartered Freight Air TransportationRail transportationDeep Sea Freight TransportationCoastal and Great Lakes Freight Transportation

484121	General Freight Trucking, Long-Distance, Truckload
484122	General Freight Trucking, Long-Distance, Less Than Truckload
484210	Used Household and Office Goods Moving
484220	Specialized Freight (except Used Goods) Trucking, Local
484230	Specialized Freight (except Used Goods) Trucking, Long-Distance
488310	Port and Harbor Operations
488320	Marine Cargo Handling
488330	Navigational Services to Shipping
488390	Other Support Activities for Water Transportation
488510	Freight Transportation Arrangement
488991	Packing and Crating
488999	All Other Support Activities for Transportation
492110	Couriers and Express Delivery Services
492210	Local Messengers and Local Delivery
493110	General Warehousing and Storage
493120	Refrigerated Warehousing and Storage
493130	Farm Product Warehousing and Storage
493190	Other Warehousing and Storage

HEALTHCARE

NAICS CODE	DESCRIPTION
621111	Offices of Physicians (except Mental Health Specialists)
621112	Offices of Physicians, Mental Health Specialists
621210	Offices of Dentists
621310	Offices of Chiropractors
621320	Offices of Optometrists
621330	Offices of Mental Health Practitioners (except Physicians)

621340	Offices of Physical, Occupational and Speech Therapists, and Audiologists
621391	Offices of Podiatrists
621399	Offices of All Other Miscellaneous Health Practitioners
621410	Family Planning Centers
621420	Outpatient Mental Health and Substance Abuse Centers
621491	HMO Medical Centers
621492	Kidney Dialysis Centers
621493	Freestanding Ambulatory Surgical and Emergency Centers
621498	All Other Outpatient Care Centers
621512	Diagnostic Imaging Centers
621610	Home Health Care Services
621910	Ambulance Services
621991	Blood and Organ Banks
621999	All Other Miscellaneous Ambulatory Health Care Services
622110	General Medical and Surgical Hospitals
622210	Psychiatric and Substance Abuse Hospitals
622310	Specialty (except Psychiatric and Substance Abuse) Hospitals
623110	Nursing Care Facilities (Skilled Nursing Facilities)
623210	Residential Intellectual and Developmental Disability Facilities
623220	Residential Mental Health and Substance Abuse Facilities
623311	Continuing Care Retirement Communities
623312	Assisted Living Facilities for the Elderly
623990	Other Residential Care Facilities
624110	Child and Youth Services
624120	Services for the Elderly and Persons with Disabilities
624190	Other Individual and Family Services
624210	Community Food Services
624221	Temporary Shelters

624229	Other Community Housing Services
624230	Emergency and Other Relief Services
902622	Hospitals (State Government)
903622	Hospitals (Local Government)

PROFESSIONAL AND BUSINESS SERVICES

NAICS CODE	DESCRIPTION
541110	Offices of Lawyers
541191	Title Abstract and Settlement Offices
541199	All Other Legal Services
541211	Offices of Certified Public Accountants
541213	Tax Preparation Services
541214	Payroll Services
541219	Other Accounting Services
541430	Graphic Design Services
541490	Other Specialized Design Services
541611	Administrative Management and General Management Consulting Services
541612	Human Resources Consulting Services
541613	Marketing Consulting Services
541614	Process, Physical Distribution, and Logistics Consulting Services
541618	Other Management Consulting Services
541620	Environmental Consulting Services
541690	Other Scientific and Technical Consulting Services
541810	Advertising Agencies
541820	Public Relations Agencies
541830	Media Buying Agencies
541840	Media Representatives

541850	Outdoor Advertising
541860	Direct Mail Advertising
541870	Advertising Material Distribution Services
541890	Other Services Related to Advertising
541921	Photography Studios, Portrait
541922	Commercial Photography
541930	Translation and Interpretation Services
551112	Offices of Other Holding Companies
551114	Corporate, Subsidiary, and Regional Managing Offices
561110	Office Administrative Services
561210	Facilities Support Services
561311	Employment Placement Agencies
561312	Executive Search Services
561320	Temporary Help Services
561330	Professional Employer Organizations
561410	Document Preparation Services
561421	Telephone Answering Services
561422	Telemarketing Bureaus and Other Contact Centers
561431	Private Mail Centers
561439	Other Business Service Centers (including Copy Shops)
561440	Collection Agencies
561450	Credit Bureaus
561491	Repossession Services
561492	Court Reporting and Stenotype Services
561499	All Other Business Support Services
561611	Investigation Services
561612	Security Guards and Patrol Services
561613	Armored Car Services

561621	Security Systems Services (except Locksmiths)
561622	Locksmiths
561710	Exterminating and Pest Control Services
561720	Janitorial Services
561730	Landscaping Services
561740	Carpet and Upholstery Cleaning Services
561790	Other Services to Buildings and Dwellings
561910	Packaging and Labeling Services
561990	All Other Support Services

FINANCE, BANKING, INSURANCE, AND REAL ESTATE (FIRE)

NAICS CODE	DESCRIPTION
521110	Monetary Authorities-Central Bank
522110	Commercial Banking
522120	Savings Institutions
522130	Credit Unions
522190	Other Depository Credit Intermediation
522210	Credit Card Issuing
522220	Sales Financing
522291	Consumer Lending
522292	Real Estate Credit
522293	International Trade Financing
522294	Secondary Market Financing
522298	All Other Nondepository Credit Intermediation
522310	Mortgage and Nonmortgage Loan Brokers
522320	Financial Transactions Processing, Reserve, and Clearinghouse Activities
522390	Other Activities Related to Credit Intermediation

523110	Investment Banking and Securities Dealing
523120	Securities Brokerage
523130	Commodity Contracts Dealing
523140	Commodity Contracts Brokerage
523210	Securities and Commodity Exchanges
523910	Miscellaneous Intermediation
523920	Portfolio Management
523930	Investment Advice
523991	Trust, Fiduciary, and Custody Activities
523999	Miscellaneous Financial Investment Activities
524113	Direct Life Insurance Carriers
524114	Direct Health and Medical Insurance Carriers
524126	Direct Property and Casualty Insurance Carriers
524127	Direct Title Insurance Carriers
524128	Other Direct Insurance (except Life, Health, and Medical) Carriers
524130	Reinsurance Carriers
524210	Insurance Agencies and Brokerages
524291	Claims Adjusting
524292	Third Party Administration of Insurance and Pension Funds
524298	All Other Insurance Related Activities
525110	Pension Funds
525120	Health and Welfare Funds
525190	Other Insurance Funds
525910	Open-End Investment Funds
525920	Trusts, Estates, and Agency Accounts
525990	Other Financial Vehicles
531110	Lessors of Residential Buildings and Dwellings
531120	Lessors of Nonresidential Buildings (except Miniwarehouses)

531130	Lessors of Miniwarehouses and Self-Storage Units
531190	Lessors of Other Real Estate Property
531210	Offices of Real Estate Agents and Brokers
531311	Residential Property Managers
531312	Nonresidential Property Managers
531320	Offices of Real Estate Appraisers
531390	Other Activities Related to Real Estate
532411	Commercial Air, Rail, and Water Transportation Equipment Rental and Leasing
532412	Construction, Mining, and Forestry Machinery and Equipment Rental and Leasing
532420	Office Machinery and Equipment Rental and Leasing
532490	Other Commercial and Industrial Machinery and Equipment Rental and Leasing
533110	Lessors of Nonfinancial Intangible Assets (except Copyrighted Works)
551111	Offices of Bank Holding Companies

INFORMATION AND COMMUNICATIONS

NAICS CODE	DESCRIPTION
323111	Commercial Printing (except Screen and Books)
323113	Commercial Screen Printing
323117	Books Printing
323120	Support Activities for Printing
511110	Newspaper Publishers
511120	Periodical Publishers
511130	Book Publishers
511140	Directory and Mailing List Publishers
511191	Greeting Card Publishers
511199	All Other Publishers
512110	Motion Picture and Video Production

512120	Motion Picture and Video Distribution
512131	Motion Picture Theaters (except Drive-Ins)
512132	Drive-In Motion Picture Theaters
512191	Teleproduction and Other Postproduction Services
512199	Other Motion Picture and Video Industries
512230	Music Publishers
512240	Sound Recording Studios
512250	Record Production and Distribution
512290	Other Sound Recording Industries
515111	Radio Networks
515112	Radio Stations
515120	Television Broadcasting
515210	Cable and Other Subscription Programming
519110	News Syndicates
519120	Libraries and Archives
519130	Internet Publishing and Broadcasting and Web Search Portals
519190	All Other Information Services

EDUCATION AND KNOWLEDGE CREATION

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NAICS CODE	DESCRIPTION
485410	School and Employee Bus Transportation
541720	Research and Development in the Social Sciences and Humanities
541910	Marketing Research and Public Opinion Polling
541990	All Other Professional, Scientific, and Technical Services
611110	Elementary and Secondary Schools
611210	Junior Colleges
611310	Colleges, Universities, and Professional Schools

611410	Business and Secretarial Schools
611420	Computer Training
611430	Professional and Management Development Training
611511	Cosmetology and Barber Schools
611512	Flight Training
611513	Apprenticeship Training
611519	Other Technical and Trade Schools
611610	Fine Arts Schools
611620	Sports and Recreation Instruction
611630	Language Schools
611691	Exam Preparation and Tutoring
611692	Automobile Driving Schools
611699	All Other Miscellaneous Schools and Instruction
611710	Educational Support Services
624310	Vocational Rehabilitation Services
624410	Child Day Care Services
902611	Elementary and Secondary Schools (State Government)
902612	Colleges, Universities, and Professional Schools (State Government)
902619	All Other Schools and Educational Support Services (State Government)
903611	Elementary and Secondary Schools (Local Government)
903612	Colleges, Universities, and Professional Schools (Local Government)
903619	All Other Schools and Educational Support Services (Local Government)

AGRICULTURE AND FOOD

NAICS CODE	DESCRIPTION
111000	Crop Production
112000	Animal Production

113110	Timber Tract Operations
113210	Forest Nurseries and Gathering of Forest Products
113310	Logging
114111	Finfish Fishing
114112	Shellfish Fishing
114119	Other Marine Fishing
114210	Hunting and Trapping
115111	Cotton Ginning
115112	Soil Preparation, Planting, and Cultivating
115113	Crop Harvesting, Primarily by Machine
115114	Postharvest Crop Activities (except Cotton Ginning)
115115	Farm Labor Contractors and Crew Leaders
115116	Farm Management Services
115210	Support Activities for Animal Production
115310	Support Activities for Forestry
311211	Flour Milling
311212	Rice Milling
311213	Malt Manufacturing
311221	Wet Corn Milling
311224	Soybean and Other Oilseed Processing
311225	Fats and Oils Refining and Blending
311230	Breakfast Cereal Manufacturing
311313	Beet Sugar Manufacturing
311314	Cane Sugar Manufacturing
311340	Nonchocolate Confectionery Manufacturing
311351	Chocolate and Confectionery Manufacturing from Cacao Beans
311352	Confectionery Manufacturing from Purchased Chocolate
311411	Frozen Fruit, Juice, and Vegetable Manufacturing

311412	Frozen Specialty Food Manufacturing
311421	Fruit and Vegetable Canning
311422	Specialty Canning
311423	Dried and Dehydrated Food Manufacturing
311511	Fluid Milk Manufacturing
311512	Creamery Butter Manufacturing
311513	Cheese Manufacturing
311514	Dry, Condensed, and Evaporated Dairy Product Manufacturing
311520	Ice Cream and Frozen Dessert Manufacturing
311611	Animal (except Poultry) Slaughtering
311612	Meat Processed from Carcasses
311613	Rendering and Meat Byproduct Processing
311615	Poultry Processing
311710	Seafood Product Preparation and Packaging
311811	Retail Bakeries
311812	Commercial Bakeries
311813	Frozen Cakes, Pies, and Other Pastries Manufacturing
311821	Cookie and Cracker Manufacturing
311824	Dry Pasta, Dough, and Flour Mixes Manufacturing from Purchased Flour
311830	Tortilla Manufacturing
311911	Roasted Nuts and Peanut Butter Manufacturing
311919	Other Snack Food Manufacturing
311920	Coffee and Tea Manufacturing
311930	Flavoring Syrup and Concentrate Manufacturing
311941	Mayonnaise, Dressing, and Other Prepared Sauce Manufacturing
311942	Spice and Extract Manufacturing
311991	Perishable Prepared Food Manufacturing
311999	All Other Miscellaneous Food Manufacturing

312111	Soft Drink Manufacturing
312112	Bottled Water Manufacturing
312113	Ice Manufacturing
312120	Breweries
312130	Wineries
312140	Distilleries
423820	Farm and Garden Machinery and Equipment Merchant Wholesalers
424810	Beer and Ale Merchant Wholesalers
424820	Wine and Distilled Alcoholic Beverage Merchant Wholesalers
541940	Veterinary Services

BUILDING AND DESIGN

NAICS CODE	DESCRIPTION
236115	New Single-Family Housing Construction (except For-Sale Builders)
236116	New Multifamily Housing Construction (except For-Sale Builders)
236117	New Housing For-Sale Builders
236118	Residential Remodelers
236210	Industrial Building Construction
236220	Commercial and Institutional Building Construction
237210	Land Subdivision
238110	Poured Concrete Foundation and Structure Contractors
238120	Structural Steel and Precast Concrete Contractors
238130	Framing Contractors
238140	Masonry Contractors
238150	Glass and Glazing Contractors
238160	Roofing Contractors
238170	Siding Contractors

238190	Other Foundation, Structure, and Building Exterior Contractors
238210	Electrical Contractors and Other Wiring Installation Contractors
238220	Plumbing, Heating, and Air-Conditioning Contractors
238290	Other Building Equipment Contractors
238310	Drywall and Insulation Contractors
238320	Painting and Wall Covering Contractors
238330	Flooring Contractors
238340	Tile and Terrazzo Contractors
238350	Finish Carpentry Contractors
238390	Other Building Finishing Contractors
238910	Site Preparation Contractors
238990	All Other Specialty Trade Contractors
327310	Cement Manufacturing
327320	Ready-Mix Concrete Manufacturing
327331	Concrete Block and Brick Manufacturing
327332	Concrete Pipe Manufacturing
327390	Other Concrete Product Manufacturing
332311	Prefabricated Metal Building and Component Manufacturing
332312	Fabricated Structural Metal Manufacturing
332313	Plate Work Manufacturing
332321	Metal Window and Door Manufacturing
332322	Sheet Metal Work Manufacturing
332323	Ornamental and Architectural Metal Work Manufacturing
333413	Industrial and Commercial Fan and Blower and Air Purification Equipment Manufacturing
333414	Heating Equipment (except Warm Air Furnaces) Manufacturing
333415	Air-Conditioning and Warm Air Heating Equipment and Commercial and Industrial Refrigeration Equipment Manufacturing
423310	Lumber, Plywood, Millwork, and Wood Panel Merchant Wholesalers
423320	Brick, Stone, and Related Construction Material Merchant Wholesalers

423330	Roofing, Siding, and Insulation Material Merchant Wholesalers
423390	Other Construction Material Merchant Wholesalers
423710	Hardware Merchant Wholesalers
423720	Plumbing and Heating Equipment and Supplies (Hydronics) Merchant Wholesalers
423730	Warm Air Heating and Air-Conditioning Equipment and Supplies Merchant Wholesalers
423740	Refrigeration Equipment and Supplies Merchant Wholesalers
423810	Construction and Mining (except Oil Well) Machinery and Equipment Merchant Wholesalers
541310	Architectural Services
541320	Landscape Architectural Services
541330	Engineering Services
541340	Drafting Services
541350	Building Inspection Services
541360	Geophysical Surveying and Mapping Services
541370	Surveying and Mapping (except Geophysical) Services
541410	Interior Design Services
541420	Industrial Design Services

PUBLIC SERVICES AND INFRASTRUCTURE

NAICS CODE	DESCRIPTION
221310	Water Supply and Irrigation Systems
221320	Sewage Treatment Facilities
237110	Water and Sewer Line and Related Structures Construction
211120	Crude Petroleum Extraction
211130	Natural Gas Extraction
212111	Bituminous Coal and Lignite Surface Mining
212112	Bituminous Coal Underground Mining
212113	Anthracite Mining

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213111	Drilling Oil and Gas Wells
213112	Support Activities for Oil and Gas Operations
213113	Support Activities for Coal Mining
221111	Hydroelectric Power Generation
221112	Fossil Fuel Electric Power Generation
221113	Nuclear Electric Power Generation
221114	Solar Electric Power Generation
221115	Wind Electric Power Generation
221116	Geothermal Electric Power Generation
221117	Biomass Electric Power Generation
221118	Other Electric Power Generation
221121	Electric Bulk Power Transmission and Control
221122	Electric Power Distribution
221210	Natural Gas Distribution
221330	Steam and Air-Conditioning Supply
237120	Oil and Gas Pipeline and Related Structures Construction
237130	Power and Communication Line and Related Structures Construction
324110	Petroleum Refineries
324191	Petroleum Lubricating Oil and Grease Manufacturing
324199	All Other Petroleum and Coal Products Manufacturing
333611	Turbine and Turbine Generator Set Units Manufacturing
333612	Speed Changer, Industrial High-Speed Drive, and Gear Manufacturing
333613	Mechanical Power Transmission Equipment Manufacturing
333618	Other Engine Equipment Manufacturing
334513	Instruments and Related Products Manufacturing for Measuring, Displaying, and Controlling Industrial Process Variables
335110	Electric Lamp Bulb and Part Manufacturing
335121	Residential Electric Lighting Fixture Manufacturing
335122	Commercial, Industrial, and Institutional Electric Lighting Fixture Manufacturing

335129	Other Lighting Equipment Manufacturing
335311	Power, Distribution, and Specialty Transformer Manufacturing
335312	Motor and Generator Manufacturing
335313	Switchgear and Switchboard Apparatus Manufacturing
335314	Relay and Industrial Control Manufacturing
335911	Storage Battery Manufacturing
335912	Primary Battery Manufacturing
335921	Fiber Optic Cable Manufacturing
335929	Other Communication and Energy Wire Manufacturing
335931	Current-Carrying Wiring Device Manufacturing
335932	Noncurrent-Carrying Wiring Device Manufacturing
335991	Carbon and Graphite Product Manufacturing
335999	All Other Miscellaneous Electrical Equipment and Component Manufacturing
486110	Pipeline Transportation of Crude Oil
486210	Pipeline Transportation of Natural Gas
486210 486910	Pipeline Transportation of Natural Gas Pipeline Transportation of Refined Petroleum Products
486910	Pipeline Transportation of Refined Petroleum Products
486910 486990	Pipeline Transportation of Refined Petroleum Products All Other Pipeline Transportation
486910 486990 237310	Pipeline Transportation of Refined Petroleum Products All Other Pipeline Transportation Highway, Street, and Bridge Construction
486910 486990 237310 237990	Pipeline Transportation of Refined Petroleum Products All Other Pipeline Transportation Highway, Street, and Bridge Construction Other Heavy and Civil Engineering Construction
486910 486990 237310 237990 488410	Pipeline Transportation of Refined Petroleum Products All Other Pipeline Transportation Highway, Street, and Bridge Construction Other Heavy and Civil Engineering Construction Motor Vehicle Towing
486910 486990 237310 237990 488410 488490	Pipeline Transportation of Refined Petroleum Products All Other Pipeline Transportation Highway, Street, and Bridge Construction Other Heavy and Civil Engineering Construction Motor Vehicle Towing Other Support Activities for Road Transportation
486910 486990 237310 237990 488410 488490 491110	Pipeline Transportation of Refined Petroleum Products All Other Pipeline Transportation Highway, Street, and Bridge Construction Other Heavy and Civil Engineering Construction Motor Vehicle Towing Other Support Activities for Road Transportation Postal Service
486910 486990 237310 237990 488410 488490 491110 901149	Pipeline Transportation of Refined Petroleum ProductsAll Other Pipeline TransportationHighway, Street, and Bridge ConstructionOther Heavy and Civil Engineering ConstructionMotor Vehicle TowingOther Support Activities for Road TransportationPostal ServiceUS Postal Service
486910 486990 237310 237990 488410 488490 491110 901149 901199	Pipeline Transportation of Refined Petroleum ProductsAll Other Pipeline TransportationHighway, Street, and Bridge ConstructionOther Heavy and Civil Engineering ConstructionMotor Vehicle TowingOther Support Activities for Road TransportationPostal ServiceUS Postal ServiceFederal Government, Civilian, Excluding Postal Service

OTHER MANUFACTURING

NAICS CODE	DESCRIPTION
212210	Iron Ore Mining
212221	Gold Ore Mining
212222	Silver Ore Mining
212230	Copper, Nickel, Lead, and Zinc Mining
212291	Uranium-Radium-Vanadium Ore Mining
212299	All Other Metal Ore Mining
212311	Dimension Stone Mining and Quarrying
212312	Crushed and Broken Limestone Mining and Quarrying
212313	Crushed and Broken Granite Mining and Quarrying
212319	Other Crushed and Broken Stone Mining and Quarrying
212321	Construction Sand and Gravel Mining
212322	Industrial Sand Mining
212324	Kaolin and Ball Clay Mining
212325	Clay and Ceramic and Refractory Minerals Mining
212391	Potash, Soda, and Borate Mineral Mining
212392	Phosphate Rock Mining
212393	Other Chemical and Fertilizer Mineral Mining
212399	All Other Nonmetallic Mineral Mining
213114	Support Activities for Metal Mining
213115	Support Activities for Nonmetallic Minerals (except Fuels) Mining
311111	Dog and Cat Food Manufacturing
311119	Other Animal Food Manufacturing
312230	Tobacco Manufacturing
313110	Fiber, Yarn, and Thread Mills
313210	Broadwoven Fabric Mills
313220	Narrow Fabric Mills and Schiffli Machine Embroidery

313230	Nonwoven Fabric Mills
313240	Knit Fabric Mills
313310	Textile and Fabric Finishing Mills
313320	Fabric Coating Mills
314110	Carpet and Rug Mills
314120	Curtain and Linen Mills
314910	Textile Bag and Canvas Mills
314994	Rope, Cordage, Twine, Tire Cord, and Tire Fabric Mills
314999	All Other Miscellaneous Textile Product Mills
315110	Hosiery and Sock Mills
315190	Other Apparel Knitting Mills
315210	Cut and Sew Apparel Contractors
315220	Men's and Boys' Cut and Sew Apparel Manufacturing
315240	Women's, Girls', and Infants' Cut and Sew Apparel Manufacturing
315280	Other Cut and Sew Apparel Manufacturing
315990	Apparel Accessories and Other Apparel Manufacturing
316110	Leather and Hide Tanning and Finishing
316210	Footwear Manufacturing
316992	Women's Handbag and Purse Manufacturing
316998	All Other Leather Good and Allied Product Manufacturing
321113	Sawmills
321114	Wood Preservation
321211	Hardwood Veneer and Plywood Manufacturing
321212	Softwood Veneer and Plywood Manufacturing
321213	Engineered Wood Member (except Truss) Manufacturing
321214	Truss Manufacturing
321219	Reconstituted Wood Product Manufacturing
321911	Wood Window and Door Manufacturing

321912	Cut Stock, Resawing Lumber, and Planing
321918	Other Millwork (including Flooring)
321920	Wood Container and Pallet Manufacturing
321991	Manufactured Home (Mobile Home) Manufacturing
321992	Prefabricated Wood Building Manufacturing
321999	All Other Miscellaneous Wood Product Manufacturing
322110	Pulp Mills
322121	Paper (except Newsprint) Mills
322122	Newsprint Mills
322130	Paperboard Mills
322211	Corrugated and Solid Fiber Box Manufacturing
322212	Folding Paperboard Box Manufacturing
322219	Other Paperboard Container Manufacturing
322220	Paper Bag and Coated and Treated Paper Manufacturing
322230	Stationery Product Manufacturing
322291	Sanitary Paper Product Manufacturing
322299	All Other Converted Paper Product Manufacturing
324121	Asphalt Paving Mixture and Block Manufacturing
324122	Asphalt Shingle and Coating Materials Manufacturing
325110	Petrochemical Manufacturing
325130	Synthetic Dye and Pigment Manufacturing
325180	Other Basic Inorganic Chemical Manufacturing
325211	Plastics Material and Resin Manufacturing
325212	Synthetic Rubber Manufacturing
325220	Artificial and Synthetic Fibers and Filaments Manufacturing
325611	Soap and Other Detergent Manufacturing
325612	Polish and Other Sanitation Good Manufacturing
325613	Surface Active Agent Manufacturing

325620	Toilet Preparation Manufacturing
325910	Printing Ink Manufacturing
325991	Custom Compounding of Purchased Resins
325992	Photographic Film, Paper, Plate, and Chemical Manufacturing
325998	All Other Miscellaneous Chemical Product and Preparation Manufacturing
326111	Plastics Bag and Pouch Manufacturing
326112	Plastics Packaging Film and Sheet (including Laminated) Manufacturing
326113	Unlaminated Plastics Film and Sheet (except Packaging) Manufacturing
326121	Unlaminated Plastics Profile Shape Manufacturing
326122	Plastics Pipe and Pipe Fitting Manufacturing
326130	Laminated Plastics Plate, Sheet (except Packaging), and Shape Manufacturing
326140	Polystyrene Foam Product Manufacturing
326150	Urethane and Other Foam Product (except Polystyrene) Manufacturing
326160	Plastics Bottle Manufacturing
326191	Plastics Plumbing Fixture Manufacturing
326199	All Other Plastics Product Manufacturing
326211	Tire Manufacturing (except Retreading)
326212	Tire Retreading
326220	Rubber and Plastics Hoses and Belting Manufacturing
326291	Rubber Product Manufacturing for Mechanical Use
326299	All Other Rubber Product Manufacturing
327110	Pottery, Ceramics, and Plumbing Fixture Manufacturing
327120	Clay Building Material and Refractories Manufacturing
327211	Flat Glass Manufacturing
327212	Other Pressed and Blown Glass and Glassware Manufacturing
327213	Glass Container Manufacturing
327215	Glass Product Manufacturing Made of Purchased Glass
327410	Lime Manufacturing
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327420	Gypsum Product Manufacturing
327910	Abrasive Product Manufacturing
327991	Cut Stone and Stone Product Manufacturing
327992	Ground or Treated Mineral and Earth Manufacturing
327993	Mineral Wool Manufacturing
327999	All Other Miscellaneous Nonmetallic Mineral Product Manufacturing
331110	Iron and Steel Mills and Ferroalloy Manufacturing
331210	Iron and Steel Pipe and Tube Manufacturing from Purchased Steel
331221	Rolled Steel Shape Manufacturing
331222	Steel Wire Drawing
331313	Alumina Refining and Primary Aluminum Production
331314	Secondary Smelting and Alloying of Aluminum
331315	Aluminum Sheet, Plate, and Foil Manufacturing
331318	Other Aluminum Rolling, Drawing, and Extruding
331410	Nonferrous Metal (except Aluminum) Smelting and Refining
331420	Copper Rolling, Drawing, Extruding, and Alloying
331491	Nonferrous Metal (except Copper and Aluminum) Rolling, Drawing, and Extruding
331492	Secondary Smelting, Refining, and Alloying of Nonferrous Metal (except Copper and Aluminum)
331511	Iron Foundries
331512	Steel Investment Foundries
331513	Steel Foundries (except Investment)
331523	Nonferrous Metal Die-Casting Foundries
331524	Aluminum Foundries (except Die-Casting)
331529	Other Nonferrous Metal Foundries (except Die-Casting)
332111	Iron and Steel Forging
332112	Nonferrous Forging
332114	Custom Roll Forming
332117	Powder Metallurgy Part Manufacturing

332119	Metal Crown, Closure, and Other Metal Stamping (except Automotive)
332215	Metal Kitchen Cookware, Utensil, Cutlery, and Flatware (except Precious) Manufacturing
332216	Saw Blade and Handtool Manufacturing
332410	Power Boiler and Heat Exchanger Manufacturing
332420	Metal Tank (Heavy Gauge) Manufacturing
332431	Metal Can Manufacturing
332439	Other Metal Container Manufacturing
332510	Hardware Manufacturing
332618	Other Fabricated Wire Product Manufacturing
332710	Machine Shops
332721	Precision Turned Product Manufacturing
332722	Bolt, Nut, Screw, Rivet, and Washer Manufacturing
332811	Metal Heat Treating
332812	Metal Coating, Engraving (except Jewelry and Silverware), and Allied Services to Manufacturers
332813	Electroplating, Plating, Polishing, Anodizing, and Coloring
332991	Ball and Roller Bearing Manufacturing
332996	Fabricated Pipe and Pipe Fitting Manufacturing
332999	All Other Miscellaneous Fabricated Metal Product Manufacturing
333111	Farm Machinery and Equipment Manufacturing
333112	Lawn and Garden Tractor and Home Lawn and Garden Equipment Manufacturing
333120	Construction Machinery Manufacturing
333131	Mining Machinery and Equipment Manufacturing
333132	Oil and Gas Field Machinery and Equipment Manufacturing
333241	Food Product Machinery Manufacturing
333242	Semiconductor Machinery Manufacturing
333243	Sawmill, Woodworking, and Paper Machinery Manufacturing
333244	Printing Machinery and Equipment Manufacturing
333249	Other Industrial Machinery Manufacturing

333316	Photographic and Photocopying Equipment Manufacturing
333318	Other Commercial and Service Industry Machinery Manufacturing
333511	Industrial Mold Manufacturing
333514	Special Die and Tool, Die Set, Jig, and Fixture Manufacturing
333515	Cutting Tool and Machine Tool Accessory Manufacturing
333517	Machine Tool Manufacturing
333519	Rolling Mill and Other Metalworking Machinery Manufacturing
333912	Air and Gas Compressor Manufacturing
333914	Measuring, Dispensing, and Other Pumping Equipment Manufacturing
333921	Elevator and Moving Stairway Manufacturing
333922	Conveyor and Conveying Equipment Manufacturing
333923	Overhead Traveling Crane, Hoist, and Monorail System Manufacturing
333924	Industrial Truck, Tractor, Trailer, and Stacker Machinery Manufacturing
333991	Power-Driven Handtool Manufacturing
333992	Welding and Soldering Equipment Manufacturing
333993	Packaging Machinery Manufacturing
333994	Industrial Process Furnace and Oven Manufacturing
333995	Fluid Power Cylinder and Actuator Manufacturing
333996	Fluid Power Pump and Motor Manufacturing
333997	Scale and Balance Manufacturing
333999	All Other Miscellaneous General Purpose Machinery Manufacturing
335210	Small Electrical Appliance Manufacturing
335220	Major Household Appliance Manufacturing
337110	Wood Kitchen Cabinet and Countertop Manufacturing
337121	Upholstered Household Furniture Manufacturing
337122	Nonupholstered Wood Household Furniture Manufacturing
337124	Metal Household Furniture Manufacturing
337125	Household Furniture (except Wood and Metal) Manufacturing

337127	Institutional Furniture Manufacturing
337211	Wood Office Furniture Manufacturing
337212	Custom Architectural Woodwork and Millwork Manufacturing
337214	Office Furniture (except Wood) Manufacturing
337215	Showcase, Partition, Shelving, and Locker Manufacturing
337910	Mattress Manufacturing
337920	Blind and Shade Manufacturing
339910	Jewelry and Silverware Manufacturing
339920	Sporting and Athletic Goods Manufacturing
339930	Doll, Toy, and Game Manufacturing
339940	Office Supplies (except Paper) Manufacturing
339950	Sign Manufacturing
339991	Gasket, Packing, and Sealing Device Manufacturing
339992	Musical Instrument Manufacturing
339993	Fastener, Button, Needle, and Pin Manufacturing
339994	Broom, Brush, and Mop Manufacturing
339995	Burial Casket Manufacturing
339999	All Other Miscellaneous Manufacturing

OTHER SERVICES

NAICS CODE	DESCRIPTION
485111	Mixed Mode Transit Systems
485112	Commuter Rail Systems
485113	Bus and Other Motor Vehicle Transit Systems
485119	Other Urban Transit Systems
485210	Interurban and Rural Bus Transportation
485991	Special Needs Transportation

485999	All Other Transit and Ground Passenger Transportation
532210	Consumer Electronics and Appliances Rental
532281	Formal Wear and Costume Rental
532282	Video Tape and Disc Rental
532283	Home Health Equipment Rental
532289	All Other Consumer Goods Rental
532310	General Rental Centers
562111	Solid Waste Collection
562112	Hazardous Waste Collection
562119	Other Waste Collection
562211	Hazardous Waste Treatment and Disposal
562212	Solid Waste Landfill
562213	Solid Waste Combustors and Incinerators
562219	Other Nonhazardous Waste Treatment and Disposal
562910	Remediation Services
562920	Materials Recovery Facilities
562991	Septic Tank and Related Services
562998	All Other Miscellaneous Waste Management Services
722514	Cafeterias, Grill Buffets, and Buffets
811111	General Automotive Repair
811112	Automotive Exhaust System Repair
811113	Automotive Transmission Repair
811118	Other Automotive Mechanical and Electrical Repair and Maintenance
811121	Automotive Body, Paint, and Interior Repair and Maintenance
811122	Automotive Glass Replacement Shops
811191	Automotive Oil Change and Lubrication Shops
811192	Car Washes
811198	All Other Automotive Repair and Maintenance

811310	Commercial and Industrial Machinery and Equipment (except Automotive and Electronic) Repair and Maintenance
811411	Home and Garden Equipment Repair and Maintenance
811412	Appliance Repair and Maintenance
811420	Reupholstery and Furniture Repair
811430	Footwear and Leather Goods Repair
811490	Other Personal and Household Goods Repair and Maintenance
812111	Barber Shops
812112	Beauty Salons
812113	Nail Salons
812191	Diet and Weight Reducing Centers
812199	Other Personal Care Services
812210	Funeral Homes and Funeral Services
812220	Cemeteries and Crematories
812310	Coin-Operated Laundries and Drycleaners
812320	Drycleaning and Laundry Services (except Coin-Operated)
812331	Linen Supply
812332	Industrial Launderers
812910	Pet Care (except Veterinary) Services
812921	Photofinishing Laboratories (except One-Hour)
812922	One-Hour Photofinishing
812930	Parking Lots and Garages
812990	All Other Personal Services
813110	Religious Organizations
813211	Grantmaking Foundations
813212	Voluntary Health Organizations
813219	Other Grantmaking and Giving Services
813311	Human Rights Organizations
813312	Environment, Conservation and Wildlife Organizations

813319	Other Social Advocacy Organizations
813410	Civic and Social Organizations
813910	Business Associations
813920	Professional Organizations
813930	Labor Unions and Similar Labor Organizations
813940	Political Organizations
813990	Other Similar Organizations (except Business, Professional, Labor, and Political Organizations)
814110	Private Households