

# Family Financial Stability Index

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## Summary Report and 2022 Neighborhood-Level Index Results for Orange County, California

May 2024

*Prepared for:*



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## Introduction

The Family Financial Stability Index (FFSI) was developed in response to the needs of Orange County (California) United Way (OCUW) to measure progress on their FACE 2024 goals, which arose out of their strategic planning process and encompass the domains of Education, Income, Housing, and Health. The OCUW sought a tool that would help them track changes and inform policy relevant to the Income goal: “Reduce the percentage of financially unstable families by 25 percent.”

Specifically, OCUW leaders were seeking a composite metric summarizing multiple indicators of family financial stability due to the perceived benefits of such a metric, including the ability to synthesize many different data points and analyze correlates, the ease of communicating complex concepts to a broad range of stakeholders, and the ability to track progress over time. While there can be drawbacks to such composite indices, including potential oversimplification and the need to establish credibility for the methods employed, indices can be concise and useful tools for policymakers and practitioners.<sup>1</sup> Mindful of these positive and negative attributes, as well as the goal of measuring family financial stability, the authors sought a tool that would address several needs.

First, since the concept of “financial stability” is broader than a single variable, such as poverty status or income, the authors sought a multivariate metric that would reflect several influences on a family’s financial stability. In the literature, there is a lack of consensus on what constitutes personal or family financial stability, or conversely, financial strain. Broadly speaking, families would be considered financially stable if their financial situation is steady, sustainable, and resilient to temporary shocks and setbacks.<sup>2</sup> But specific methods used to measure these characteristics vary. Measurement may include objective, quantifiable measures (such as income relative to the poverty line); incidence of protective characteristics (such as homeownership, health insurance, or dual-parent family); or psychosocial measures (such as level of stress or confidence in financial situation).

In part due to the research-supported link between increased earned wages and increases in reported financial stability, at a minimum, financial stability metrics tend to be measures of:

- income (such as income above 200% of the federal poverty line or per capita income), and/or
- employment status (such as being employed or employed at a defined living wage).<sup>3</sup>

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<sup>1</sup> Lorenz, J., Brauer, C., & Lorenz, D. (2016) Rank-Optimal Weighting or “How to be Best in the OECD Better Life Index?”, *Social Indicators Research*, 134: 75

Booyesen, F. (2002). An Overview and Evaluation of Composite Indices of Development, *Social Indicators Research*, 59(2), 115-151

<sup>2</sup> Federal Reserve Bank of St. Louis, Annual Report 2012, After the Fall: Rebuilding Family Balance Sheets, Rebuilding the Economy. Retrieved April 6, 2018 at: <https://fraser.stlouisfed.org/>

<sup>3</sup> Coley, RL & Lombardi, CM. (2014). Low-Income Women’s Employment Experiences and Their Financial, Personal, and Family Well-Being. *Journal of Family Psychology*, Vol. 28(1), pp. 88-97

National Child Youth and Wellbeing Index. (2013). Retrieved at <https://www.fcd-us.org/assets/2016/04/Child-Well-Being-Index-2013-Final.pdf>

In addition to these baseline measures of financial stability, a more detailed definition of economic security may include the following, although the research-supported link to financial stability may not be as strong:

- the ability to afford basic necessities,
- the ability to afford unexpected expenses,
- medical insurance coverage for the entire family,
- the ability to pay bills in the recent past and future,
- at least one month of cash reserve, and
- the ability to access traditional credit products to weather short-term financial setbacks.<sup>4</sup>

Educational attainment, homeownership, and family structures are additional variables that contribute to economic security or have been identified in the literature as risk factors for economic insecurity. Specifically, these include:

- whether the parent or parents have a high school diploma,
- renting a home (as opposed to owning their home),
- whether the family is led by a single parent, and
- whether there are more than three children in the family.<sup>5</sup>

Given the strong link between financial stability and more resilient interpersonal relationships, improved child development, and better mental and physical health, surveys attempting to measure financial strain may include psychosocial measures such as:

- experience of stress or disrupted sleep,
- relationship difficulties, and
- perceived level of confidence in understanding financial matters.<sup>6</sup>

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Hosseini, M. (2011). A composite measurement of economic well-being in Iran. *Australian Journal of Basic & Applied Sciences*, 5(5), 1346-1355. Retrieved at <http://ajbasweb.com/old/ajbas/2011/1346-1355.pdf>

Ray, A.K. (2008). Measurement of Social Development: An International Comparison, *Social Indicators Research*, 86(1), 1-46

Sánchez-Cantalejo, C., Ocana-Riola, R., and Fernández-Ajuria, A. (2008). Deprivation Index for Small Areas in Spain, *Social Indicators Research*, 89(2), 259-273

Bobbitt, L., Green, S., Candura, L., and Morgan, G. (2005). The development of a county level index of well-being. *Social Indicators Research*, 73(1), 19-42

Boelhouwer, J., and Stoop, I. (1999). Measuring well-being in the Netherlands: The SCP index from 1974 to 1997. *Social Indicators Research*, 48(1), 51-75

<sup>4</sup> Coley, RL & Lombardi, CM. (2014). Low-Income Women's Employment Experiences and Their Financial, Personal, and Family Well-Being. *Journal of Family Psychology*, Vol. 28(1), pp. 88-97

Orthner, D.K., Jones-Sanpei, H., and Williamson, S. (2004). The Resilience and Strengths of Low-Income Families. *Family Relations*, 53(2), 159-167

Ratcliffe, C., Middlewood, B., Knoll, M., Davies, M., and Guillory, G. (2022). Emergency Savings and Financial Security: Insights from the Making Ends Meet Survey and Consumer Credit Panel. *Consumer Financial Protection Bureau*, March 2022

<sup>5</sup> Anderson Moore, K., Vandivere, S. and Redd, Z. (2006). A Sociodemographic Risk Index. *Social Indicators Research*, 75(1), 45-81

<sup>6</sup> Aldana, S. & Liljenquist, W. (1998) Validity and Reliability of a Financial Strain Survey. *Journal of Financial Counseling and Planning*, Vol. 9(2), pp.11-19

The Living Standards domain of the Canadian Index of Well-being includes many of the metrics cited above plus the macroeconomic measure of income inequality (i.e., the Gini coefficient), citing literature that finds countries with large income inequality are at risk for a host of negative societal outcomes.<sup>7</sup>

Ultimately, researchers' choices of which variables to include in indices reflect the purpose of the index, the research that supports the use of the variable, the ease with which the variables can be understood by users, and data availability and cost. For this project, the authors sought measures that address the core definition of financial stability (by including a measure of income and employment status) and that also include variations in cost of living. While the Federal Poverty Level is uniform across the country, cost of living varies dramatically. Therefore, the authors used rent burden (defined here as the proportion of family income spent on rent) as a proxy for cost of living, since housing prices in many regions in the United States are the primary influences on cost of living. For example, in regions like Orange County, California, where the median housing value is three times higher than the national median, income alone is not a sufficient measure of financial stability.<sup>8</sup> Families that spend substantial portions of family income on rent, whether they are above or below the poverty line, may not be well insulated from crises that would jeopardize their stability.

Second, given the vulnerability of children and young families and the importance of financial stability to child development, the authors sought a measure of financial stability focused on families with children.<sup>9</sup> Research finds that low family income negatively affects children's social-emotional, cognitive, and academic outcomes, even after controlling for parental characteristics.<sup>10</sup> A growing body of research shows how wages are correlated with health and development outcomes in children. For instance, an annual \$1 increase in the minimum wage over a child's life is associated with an approximate 10% increase in the probability that the child is in excellent health and a 25-40% decrease in missed school days due to illness. Notably, many of the benefits of a higher minimum wage are observed during the first five years of life, suggesting that resources during this period are particularly important for children's health and development.<sup>11</sup> Further, parental employment instability is correlated with negative academic and behavioral outcomes for children.<sup>12</sup>

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Consumer Financial Protection Bureau, Financial Well-Being Scale, retrieved April 6, 2018 at: [www.consumerfinance.gov/data-research/research-reports/financial-well-being-scale/](http://www.consumerfinance.gov/data-research/research-reports/financial-well-being-scale/)

Selected citations demonstrating positive association of financial stability with relationship stability, physical and mental health, and child development: U.S. Dept of HHS, ASPE Issue Brief: Foundations for Strong Families 101: Healthy Relationships and Financial Stability (<https://permanent.access.gpo.gov/gpo78276/report.pdf>); Steffen, et. al., 2016; Williamson, 2013; Shippee, Wilkinson, et. al., 2012; Selenko & Batinic, 2011; Falconier & Epstein, 2011; Szanton, Thorpe, et. al., 2010; Georgiades, Janszky, et. al., 2009

<sup>7</sup> Michalos, A., Smale, B., Labonté, R., et. al. (2001). Technical Paper: Canadian Index of Wellbeing 1.0. Retrieved from [https://uwaterloo.ca/canadian-index-wellbeing/sites/ca.canadian-index-wellbeing/files/uploads/files/Canadian\\_Index\\_of\\_Wellbeing-TechnicalPaper-FINAL\\_0.pdf](https://uwaterloo.ca/canadian-index-wellbeing/sites/ca.canadian-index-wellbeing/files/uploads/files/Canadian_Index_of_Wellbeing-TechnicalPaper-FINAL_0.pdf)

<sup>8</sup> U.S. Census Bureau. American Community Survey, 1-Year Estimates, 2021, Table B25077

<sup>9</sup> See footnote 6

<sup>10</sup> Sandstrom, H. Huerta, S. (2013). The Negative Effects of Instability on Child Development: A Research Synthesis. *The Urban Institute, Low Income Working Families Discussion Paper 3*. Retrieved from [www.urban.org/UploadedPDF/412899-The-Negative-Effects-of-Instability-on-Child-Development.pdf](http://www.urban.org/UploadedPDF/412899-The-Negative-Effects-of-Instability-on-Child-Development.pdf)

<sup>11</sup> Wehby, G. Kaestner, R. Lyu, W. Dave, D. (2020) *Effects of Minimum Wage on Child Health*. National Bureau of Economic Research. Retrieved from [www.nber.org](http://www.nber.org) on February 12, 2020.

<sup>12</sup> See footnote 10



Consequently, the focus for the index is families with children under 18 years of age as defined by the U.S. Census Bureau.

Third, and finally, the authors sought the ability to analyze family financial stability at the neighborhood level so that Orange County stakeholders can identify high concentrations of struggling families and focus interventions to improve circumstances for families in those areas. The FFSI seeks to assess the extent of family financial stability in a region, identify which neighborhoods have recent or entrenched high levels of family financial instability, and identify neighborhoods where family financial stability is notably declining or rising. Specifically, the FFSI intends to answer the following questions:

- What proportion of neighborhoods in a region experience concentrated financial instability among families with children under 18 years of age?
- Where is family financial instability concentrated in a region?
- Which neighborhoods have a consistently high concentration of family financial instability (as measured by having a low FFSI score for several consecutive years)?
- Which neighborhoods have had declining levels of family financial stability?
- Which low scoring neighborhoods have shown improving family financial stability?

In the process of developing the FFSI, the researchers were interested in where there were any existing indices that may already answer these questions. The researchers examined several indices in use nationally and internationally for measuring economic security. Salient examples include the economic component of the Human Development Index, the Living Standards domain of the Canadian Index of Well-being, the Family Economic Wellbeing component of the Child Well-being Index, the Human Needs Index, the SocioNeeds Index, and the Child Opportunity Index.<sup>13</sup>

While these indices have utility for measuring economic security for certain purposes—such as tracking international, national, or state-level trends; focusing on family income status or social determinants of health; or looking at the economic status of all households, not just families—none had all the analytical features that the authors sought:

- a cost of living variable, such as housing burden, which impacts cost of living differently from region to region and neighborhood to neighborhood,
- a focus on families with children under 18 years of age, and
- data available at the neighborhood level.

Therefore, the FFSI was developed to fill these gaps. The resulting index, which to date has been calculated only for neighborhoods in Orange County, California, provides a powerful tool for policymakers, service providers, foundations, and community advocates to identify areas where many children and families are experiencing financial instability, and importantly, provides a way for these stakeholders to assess geographic inequity in neighborhoods across Orange County. Pairing FFSI findings with local demographic data allows for an additional layer of analysis to assess

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<sup>13</sup> Human Development Index (<https://measureofamerica.org/>); SocioNeeds Index (<https://help.healthycities.org/hc/en-us/categories/4588049351191-SocioNeeds-Index-Suite>); Child Well-being Index (<https://www.fcd-us.org/2013-child-well-being-index-cwi/>); Human Needs Index (<http://humanneedsindex.org/>), Child Opportunity Index (<http://www.diversitydatakids.org/>).

disproportionate burden on marginalized communities and enhances the ability of stakeholders to target place-based initiatives to advance equity.

Measuring the effect of a specific initiative on a place requires a formal impact evaluation; in such studies, the FFSI may be used as an indicator of neighborhood financial stability. Used as a monitoring tool, the FFSI may enable researchers to identify potentially helpful factors in neighborhoods that are experiencing improvement, along with risk factors in neighborhoods that are experiencing stagnation or declining stability. For example, researchers in Orange County have explored overlaying data from the FFSI and the Early Development Index (EDI), which measures young children’s readiness for school in five developmental domains. This approach highlights neighborhoods that have demonstrate protective factors by focusing on areas with low family financial stability but higher than average EDI scores.<sup>14</sup>

The FFSI has been designed to transfer or scale up from the initial pilot region of Orange County, California to other regions, states, or the country as a whole.<sup>15</sup> Doing so will require modified scaling of the components of the FFSI, based on national averages or data from other specified regions (e.g., entire states, metro areas, or counties).

The following discussion reports on: components of the FFSI; the methods used to calculate the FFSI-OC; 2022 neighborhood-level results for the FFSI-OC; and an analysis of neighborhoods experiencing change over time on the FFSI-OC. The appendices provide additional technical details and FFSI-OC findings by component and for larger levels of geography (Orange County cities, the county overall, California and the U.S.). The appendices also include separate data and reference files to facilitate deeper analysis, including a spreadsheet of all FFSI-OC data to date and census tract reference maps to help locate neighborhoods of interest.

Annually, the FFSI-OC is summarized and published in the *Orange County Community Indicators Report*. This four-page synopsis is included as an appendix to this report. The 2023-2024 edition of the *Indicators Report*, and 2021 FFSI-OC summary results, can be found at <https://www.unitedwayoc.org/wp-content/uploads/2023/11/2023-OC-Community-Indicators-Report.pdf>.

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<sup>14</sup> Zimskind, L. (2017). EDI/FFSI-OC Analysis for Children and Families Commission of Orange County

<sup>15</sup> In this document, the term “FFSI” refers to the composite index components, methodology and formula, which could be applied to any geographic entity. The term “FFSI-OC” refers to the specific application of the FFSI in the Orange County, California context, which includes cut points tailored to Orange County and detailed reporting of Orange County findings over the past four years.

## Methods

### Data Source

Data used in indices can come from a variety of primary or secondary sources, including surveys developed specifically for the product or publicly available data associated with the focus of the index. For the FFSI (and specifically for the FFSI-OC, the version of the FFSI optimized for Orange County), several key specifications guided the data source selected.<sup>16</sup> Data for the index should:

- **Be available at the census tract level.** The researchers sought to track family financial security status and changes at the neighborhood level. Assessing changes at this level requires data uniformly available at a more detailed level than the county or city, such as census tract (CT) or block group. As indicated by the U.S. Census Bureau, census tracts are designed to be relatively homogeneous with respect to population characteristics, economic status, and living conditions and generally have a population size between 1,200 and 8,000 people, with an optimum size of 4,000 people. This allows users to align CTs with neighborhoods for a more geographically precise picture of economic stability. Therefore, the researchers use the terms “census tract” (as defined by the U.S. Census Bureau) and “neighborhood” interchangeably.
- **Be reliable and accessible.** To replicate the index in future years and allow comparisons of financial stability over time, the data must be easily accessible with an acceptable level of resource burden, and reliable from year to year.
- **Be appropriate for index focus.** Proposed data must be appropriate for the focus of the index, in terms of variable content and population.

The American Community Survey (ACS) is an ongoing survey conducted by the U.S. Census Bureau that provides annual data for large geographic areas with a population of 65,000 or more and rolling 5-year estimates for smaller areas such as census tracts and block groups. The frequency and content of ACS data make it ideal to capture and track financial stability over time. Publicly available ACS tables offer relatively strong options for variables that align with the index intent and population of interest. Customized tabulations by the U.S. Census Bureau are also available for an additional fee when ACS ready-made tables need further refinement. For example, starting with the 2013 FFSI-OC and retroactively calculated for the 2012 FFSI-OC, customized tabulations for the housing component were purchased, since standard ACS tables report this variable for all households, not for the target population of families with children under 18.

Since the FFSI was designed to focus on census tracts, it is derived from the ACS five-year rolling estimates, enabling the reader to gauge the relative financial stability of various neighborhoods in the county. The FFSI-OC formula was also applied to Orange County as a whole, as well as California and the U.S., to provide evidence for the validity of the scale and to provide context and comparative

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<sup>16</sup> As noted earlier, the term “FFSI” refers to the composite index components, methodology and formula, which could be applied to any geographic entity. The term “FFSI-OC” refers to the specific application of the FFSI in the Orange County, California context, which includes cut points tailored to Orange County and detailed reporting of Orange County findings over the past four years.

benchmarks. However, it is important to note that the FFSI-OC scores for the larger geographies are not averages of FFSI-OC scores from smaller geographic regions, such as census tracts. Census tracts do not necessarily align with city or place boundaries. For geographies larger than census tracts, the FFSI-OC was calculated directly on the ACS 5-year estimates for the geographic place, county, state, or nation. Results by place, county, state, and nation are provided in Appendices C & D.

## Components of the Family Financial Stability Index (FFSI)

The indicators included in the FFSI were informed by academic literature and examples in the field, as well as responsiveness to contextual factors within Orange County, such as Orange County United Way priorities, intended index audience and purpose, and data availability. The indicators focus on families with children under 18, reflecting a cohort that is a policy focus for a wide range of stakeholders. The selected indicators align with index priorities and are available through ready-made summary tables or customized tabulations provided by the Census Bureau, enabling neighborhood-level analysis and geographic comparisons using existing data. Each of the indicators is weighted equally in the index, as is frequently supported within the literature.<sup>17</sup>

The FFSI includes three general domains:

- Income
- Employment
- Housing

The income and employment domain selections reflect the base definition of family financial stability.<sup>18</sup> The addition of housing, specifically housing burden, defined as the proportion of income that goes toward rent, is important in the context of highly variable regional housing costs. This metric acts as a proxy for cost of living, since housing costs are often the key driver for cost of living.<sup>19</sup> Including rent burden adds a critical factor to the measurement of family financial stability, particularly in high-cost regions, where income does not go as far. This selection is described in more detail below.

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<sup>17</sup> Lorenz, J., Brauer, C., & Lorenz, D. (2016) Rank-Optimal Weighting or “How to be Best in the OECD Better Life Index?”, *Social Indicators Research*, 134: 75

Saltelli, A. (2007). Composite indicators between analysis and advocacy. *Social Indicators Research*, 81:65–77

Nardo, M., Saisana, M., Saltelli, A., Tarantola, S., Hoffman, A., & Giovannini, E. (2005). Handbook on constructing composite indicators. In OECD statistics working papers (2005/03)

Booyesen, F. (2002) An Overview and Evaluation of Composite Indices of Development, *Social Indicators Research*, Vol. 59, No. 2, pp. 115-151

<sup>18</sup> See the Introduction for a discussion of defining financial stability.

<sup>19</sup> Sperling’s Best Places

The indicators selected to represent each domain are as follows:

### **Income**

The percentage of families (with children under 18 years of age) with incomes less than 185 percent of the federal poverty level.

### **Employment**

The percentage of families (with children under 18 years of age) with one or more unemployed adults seeking employment.

### **Housing**

The percentage of families (with children under 18 years of age) that are paying 50 percent or more of income on rent.

### **Income**

The official poverty measure is perhaps the most standard gauge of economic stability used for policy decisions and programming. However, the methodology of the official poverty measure is dated and may not adequately represent economic stability in current policy and cultural contexts. Indeed, research suggests that the official poverty rate underestimates the number of families in economic hardship.<sup>20</sup> In recognition of the limitation of the federal poverty level as an appropriate representation of economic stability in today's economic context, income levels of 130 to 185 percent of poverty level are used as the eligibility thresholds for many public support services, such as free or reduced price school lunches, Medicaid, and Supplemental Nutrition Assistance Program (SNAP). Because Orange County was the pilot case for the FFSI, the higher end of that range was selected given Orange County's higher than average cost of living and that 185 percent of poverty (roughly \$55,000 for a family of four in 2022) is well below Orange County's median income for families with children under age 18 (\$125,283 in 2022, where average family size is 3.4).<sup>21</sup> Compared to the poverty rate itself, 185 percent of the poverty level more accurately reflects conventional eligibility thresholds and economic stability in many regions nationwide, particularly those with a high cost of living.

### **Employment**

This indicator was selected to represent the employment domain because research findings indicate higher ongoing financial insecurity among families when one or more caregivers is unemployed.<sup>22</sup>

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<sup>20</sup> Bohn, S. Danielson C. Levin M. Mattingly M. Wimer C. (2013) The California Poverty Measure: A New Look at the Social Safety Net, Public Policy Institute of California, retrieved at: [www.ppic.org/content/pubs/report/R\\_1013SBR.pdf](http://www.ppic.org/content/pubs/report/R_1013SBR.pdf)  
Blank, RM. (2008) How to improve poverty measurement in the United States, *Journal of Policy Analysis and Management*, Vol. 27, Issue 2, pp. 233-254

<sup>21</sup> U.S. Census Bureau, Poverty Thresholds ([www.census.gov](http://www.census.gov)) and 2022 American Community Survey, 5-Year Estimates, Table S1903 and S1101

<sup>22</sup> Coley, RL & Lombardi, CM. (2014). Low-Income Women's Employment Experiences and Their Financial, Personal, and Family Well-Being. *Journal of Family Psychology*, Vol. 28(1), pp. 88-97

McClelland, A. (2000) Effects of unemployment on the family, *The Economic and Labour Relations Review*, vol. 11, no. 2, pp. 198-212

Broman, CL. Hamilton VL. Hoffman WS. (1996) The impact of unemployment on families, *Michigan Family Review*, Volume 02, Issue 2, pp. 83-91

This indicator uses the conventional definition of unemployment, measuring whether a family views itself as fully or sufficiently employed; it does not count parents who choose to stay out of the labor force. Tracking changes in unemployment can measure the breadth and depth of employment-related issues in targeted areas to inform program implementation and policy and resource decisions.

### **Housing**

The purpose of this indicator is to measure housing burden. The development of an affordability threshold to measure housing burden dates back to 1937 and the creation of the U.S. National Housing Act. The thresholds have evolved over the years, but a 30 percent benchmark has been the standard since 1981.<sup>23</sup> The convention is that housing expenditures that exceed 30 percent of household income leave a family less able to afford food, clothing, medical care, childcare, or other needs. However, in recent years, spending more than 30 percent of income on housing has become typical in many high-cost regions. For example, 41 percent of California children live in households spending more than 30 percent on housing, and 74 percent of California children in low-income households have a housing burden above 30 percent.<sup>24</sup> Nationwide, 30 percent of children live in households spending more than 30 percent of household income on housing, and 61 percent of U.S. children in low-income households have a high housing burden.<sup>25</sup> Thus, to provide a more meaningful measure of housing insecurity in a geographic area with housing costs so high that spending more than 30 percent of income on housing has become commonplace, a new standard seems warranted. The highest interval calculated by the data source is families or households spending over 50 percent of income on rent. In 2022, fully 29 percent of Orange County families with children under 18 – or 44,925 families – spend more than 50 percent of income on rent, arguably placing them in more precarious financial circumstances than those spending less.<sup>26</sup> Given the fact that a large proportion of families (nearly a third of Orange County families and a quarter of families nationwide) are severely housing burdened and that this condition is widely understood to increase financial instability, spending 50 percent or more of income on housing costs was used as the threshold for housing burden in the FFSI.<sup>27</sup>

For the housing indicator, the analysis uses custom tabulations from the Census Bureau that provide the data for families with children under 18. A custom tabulation is required since the Census Bureau only publishes a readily available table for all households, not just families with children. The housing measure focuses on renters, rather than homeowners. As noted on page 6, renter status has been considered in the literature as one risk factor for financial instability. This instability factor may be related to the likelihood that rents continue to rise with inflation or gentrification, unlike most home mortgages with fixed interest rates. Further, owners with mortgages may be able to use their home equity assets to buffer financial challenges in a way that renting households cannot. The housing indicator focuses on renters for these reasons, and because high-income families may

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<sup>23</sup> Schwartz, M, Wilson, E. (2007) Who can afford to live in a home?: A look at data from the 2006 American Community Survey, U.S. Census Bureau

<sup>24</sup> Kids Count Data Book (datacenter.aecf.org), based on 2022 American Community Survey. Low income in this context is defined by the data source as household income less than 200 percent of the federal poverty level.

<sup>25</sup> Ibid

<sup>26</sup> Parsons Consulting, Inc. analysis of U.S. Census Bureau custom tabulation based on 2022 American Community Survey, 5-year estimates.

<sup>27</sup> Ibid

choose to spend 50 percent or more of their income when purchasing a home and still have substantial resources that enable them to weather financial downturns.

## Thresholds

Built into the index components of the FFSI are basic thresholds of financial stability, as described above, including spending 50 percent or more of income on rent, having an income of less than 185 percent of poverty, and having one or more unemployed adults in the family. The selected thresholds for each indicator are based on research, regional variation in cost of living (such as high relative housing prices), and commonly accepted measures of financial stability (such as income less than 185 percent of poverty). Families beyond these thresholds are considered to be at high risk of financial instability.

Aside from these basic thresholds of financial stability, the research does not speak to what constitutes relatively high or low concentrations of financial instability at the neighborhood level. For example, there is no research consensus that a neighborhood with 30 percent of families with incomes under 185 percent of poverty (vs. 20 or 40 percent) constitutes a neighborhood with high financial instability. Therefore, for the FFSI-OC, the observed distribution of the data from Orange County was used to provide a relative sense of the level of financial instability in each neighborhood within the county. Using the distribution of the data to set cut points is recommended in the literature as a methodology that minimizes subjective decision-making by using standard mathematical scaling.<sup>28</sup>

To arrive at distribution-based cut points for the Orange County Family Financial Stability Index, the 2012 FFSI-OC revised results were used as the baseline year to create thresholds that were then applied to all future years, allowing for analysis of change over time in comparison to the 2012 findings.<sup>29</sup> First, cut points were identified on each variable that would divide the 2012 census tract distributions into quartiles, and then these values were rounded to the nearest whole number for ease of communication and calculation. These rounded cut points resulted in distributions on each indicator that classified census tracts approximately into quartiles at the 2012 baseline measurement. For each component indicator, these rough quartiles were assigned an index score ranging from 0 to 3, where 0 represents the lowest concentration of financially stable families and 3 represents the highest concentration of financially stable families. Details of the FFSI-OC thresholds used to divide each indicator distribution into approximate quartiles are described below.<sup>30</sup>

## Income

- Census tracts in which **fewer than 10 percent** of families with children under 18 had income of less than 185 percent of the poverty level were assigned the highest stability score (3).

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<sup>28</sup> Moore, KA, Vandivere S, Redd, Z. (2006) A Sociodemographic Risk Index, *Social Indicators Research*, Vol. 75, No. 1, pp. 45-81

<sup>29</sup> The initial Housing cut points released in the FFSI 2012 Results were based on the universe of households. Due to the acquisition of Housing data for the universe of families with children since the initial calculation of the 2012 cut points, the Housing cut points were modified retroactively to reflect the 2012 Housing data for families with children.

<sup>30</sup> The creation of a national FFSI would require setting cut points according to national distributions, rather than Orange County distributions, as done for the FFSI-OC.

- Census tracts in which **10 percent or more but fewer than 20 percent** of families with children under 18 had had income of less than 185 percent of the poverty level were assigned the second highest stability score (2).
- Census tracts in which **20 percent or more but fewer than 40 percent** of families with children under 18 had had income of less than 185 percent of the poverty level were assigned the second lowest stability score (1).
- The remaining census tracts, those in which **40 percent or more** of families with children under 18 had had income of less than 185 percent of the poverty level, were assigned the lowest stability value (0).

### Employment

- Census tracts in which **fewer than 4 percent** of families with children under 18 had one or more unemployed adults were assigned the highest stability score (3).
- Census tracts in which **4 percent or more but fewer than 8 percent** of families with children under 18 had one or more unemployed adults were assigned the second highest stability score (2).
- Census tracts in which **8 percent or more but fewer than 12 percent** of families with children under 18 had one or more unemployed adults were assigned second lowest stability score (1).
- The remaining census tracts, those in which **12 percent or more** of families with children under 18 had one or more unemployed adults, were assigned the lowest stability value (0).

### Housing

- Census tracts in which **fewer than 16 percent** of families with children under 18 were spending 50 percent or more of their income on rent were assigned the highest stability score (3).
- Census tracts in which **16 percent or more but fewer than 28 percent** of families with children under 18 were spending 50 percent or more of their income on rent were assigned the second highest stability score (2).
- Census tracts in which **28 percent or more but fewer than 40 percent** of families with children under 18 were spending 50 percent or more of their income on rent were assigned the second lowest stability score (1).
- The remaining census tracts, those in which **40 percent or more** of families with children under 18 were spending 50 percent or more of their income on rent, were assigned the lowest stability value (0).

### Composite Index Formula

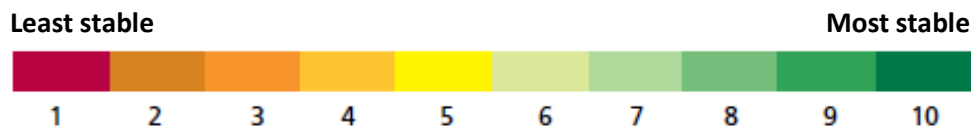
Once indicator scores ranging from 0 to 3 were established for each of the index components (Income, Employment, and Housing) for each census tract, they were combined into one overall index score for each census tract. The **Family Financial Stability Index (FFSI)** is a sum of the three indicator scores for each census tract, plus one, to create an accessible 10-point scale easily communicated to index stakeholders.



$$\text{FFSI} = 1 + \text{sum}(\text{Income}, \text{Employment}, \text{Housing})$$

The resulting index scores provide an intuitive, 10-point scale where “1” indicates a neighborhood with the lowest level of family financial stability and “10” indicates a neighborhood with the highest level of family financial stability.<sup>31</sup>

#### FFSI Score



Note that the FFSI composite index formula is the same for any region and can be applied at different geographic scales. For Orange County specifically, the FFSI-OC was derived from this formula by optimizing the cut points for the underlying component indicators based on the Orange County baseline distribution of those indicators in 2012. A similar procedure may be used to set appropriate cut points for these indicators in other geographic regions for specific periods of time, resulting in an FFSI that is optimized for those regions and time frames. A national FFSI can be used to facilitate comparison across regions, using cut points based on the national distributions for the underlying component indicators for specific periods of time.

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<sup>31</sup> The terms “census tract” (as defined by the U.S. Census Bureau) and “neighborhood” are used interchangeably.

## 2022 FFSI-OC Findings

### Index Score Distribution

As displayed in Figure 1 and Figure 2, across all Orange County census tracts in 2022, the distribution of neighborhoods by FFSI-OC score is notably skewed toward higher stability scores, with more than 50 percent of neighborhoods scoring a 7 or higher.

- Approximately one-third (32.8 percent) of the census tracts in Orange County had FFSI-OC scores of 5 or lower, while the remainder (67.2 percent) had FFSI-OC scores of 6 or greater.
- Just under three-quarters of the census tracts (73.8 percent) had FFSI-OC scores in the middle ranges, from 3 to 8.
- Only 3.7 percent of neighborhoods received a score of 1 or 2, indicating the lowest levels of family financial stability, while 22.5 percent of census tracts received a score of 9 or 10, the highest levels of family financial stability.

**Figure 1: FFSI-OC Score Distribution by Census Tract, Orange County, 2022 (Table)**

Family Financial Stability Index (FFSI) Score	Frequency (number of Orange County census tracts)	Percent (including only tracts without missing data)	Cumulative Percent (including only tracts without missing data)
1	5	0.8	0.8
2	17	2.8	3.7
3	25	4.2	7.8
4	69	11.5	19.3
5	81	13.5	32.8
6	96	16.0	48.8
7	101	16.8	65.7
8	71	11.8	77.5
9	59	9.8	87.3
10	76	12.7	100.0
<b>Total</b>	600	100.0	
<b>Missing</b>	14		
<b>Total</b>	614		

Note: Data for this table are derived from the U.S. Census Bureau, 2018-2022 American Community Survey 5-Year Estimates using 2020 census tract boundaries. Totals may not sum to 100 percent due to rounding. Data are suppressed by the U.S. Census Bureau to protect confidentiality in census tracts with few families with children.

**Figure 2: FFSI-OC Score Distribution by Census Tract, Orange County, 2022 (Chart)**

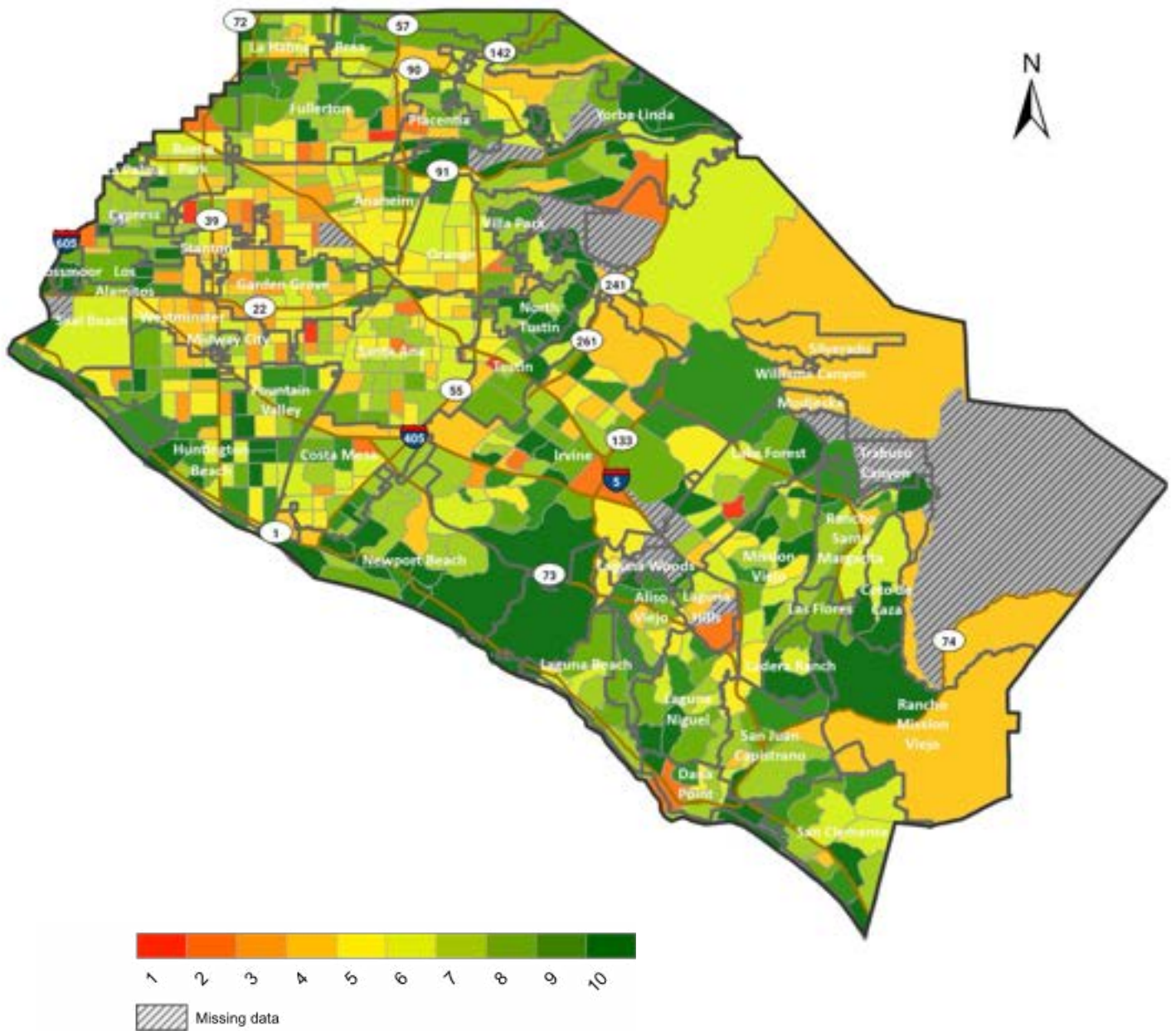


Note: Data for this table are derived from the U.S. Census Bureau, 2018-2022 American Community Survey 5-Year Estimates using 2020 census tract boundaries.

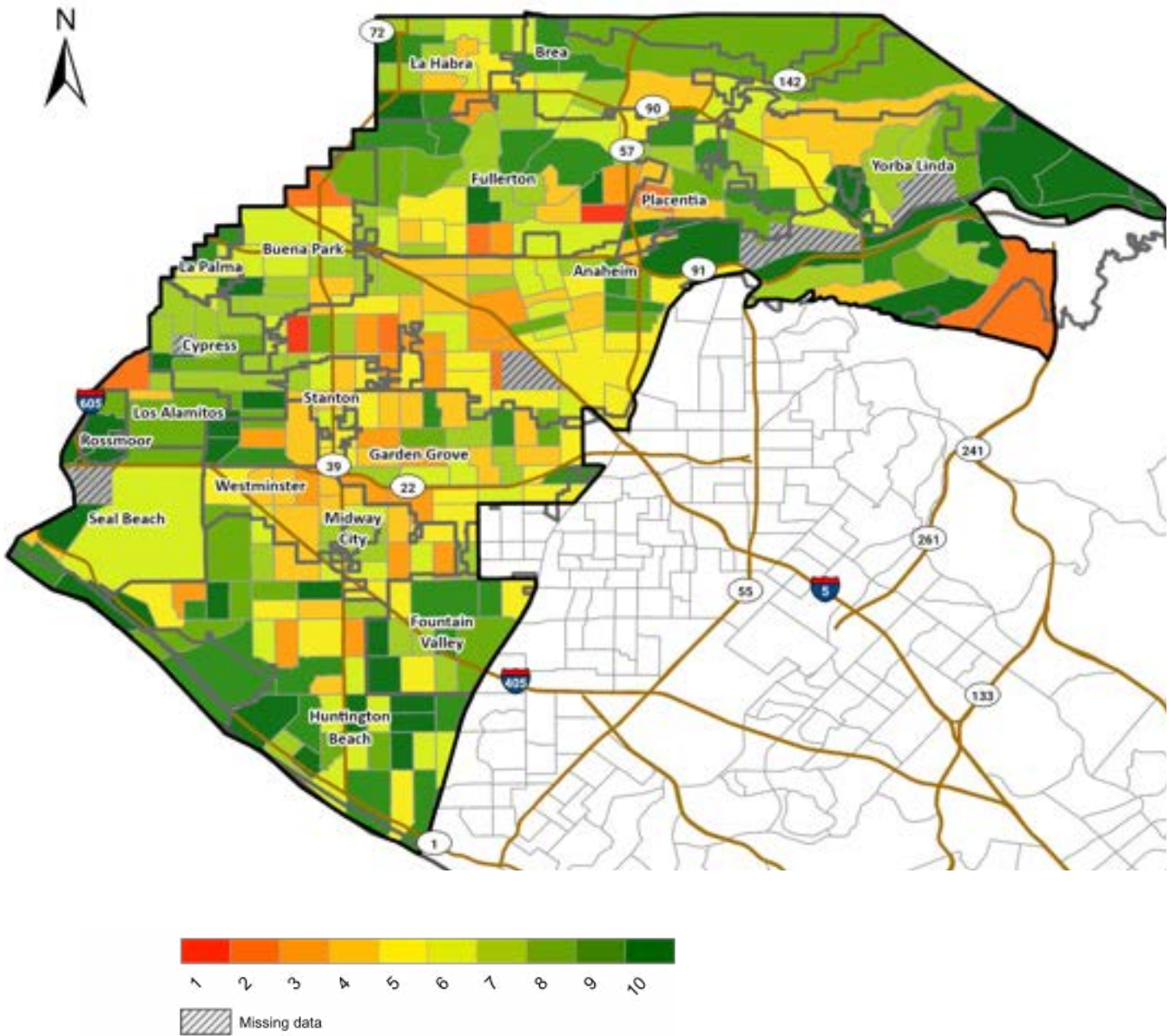
### **Geographic Distribution**

The maps on the following pages show the geographic distribution of index results by census tract. The 2022 results show that there are neighborhoods with financial instability in all regions of the county, with less notable concentration in north county than in previous years.

Figure 3: Orange County Neighborhoods by 2022 FFSI-OC Score Using 2020 Boundaries (Map)



**Figure 4: North Orange County Neighborhood Detail by 2022 FFSI-OC Score Using 2020 Boundaries (Map)**



**Figure 5: Central Orange County Neighborhood Detail by 2022 FFSI-OC Score Using 2020 Boundaries (Map)**

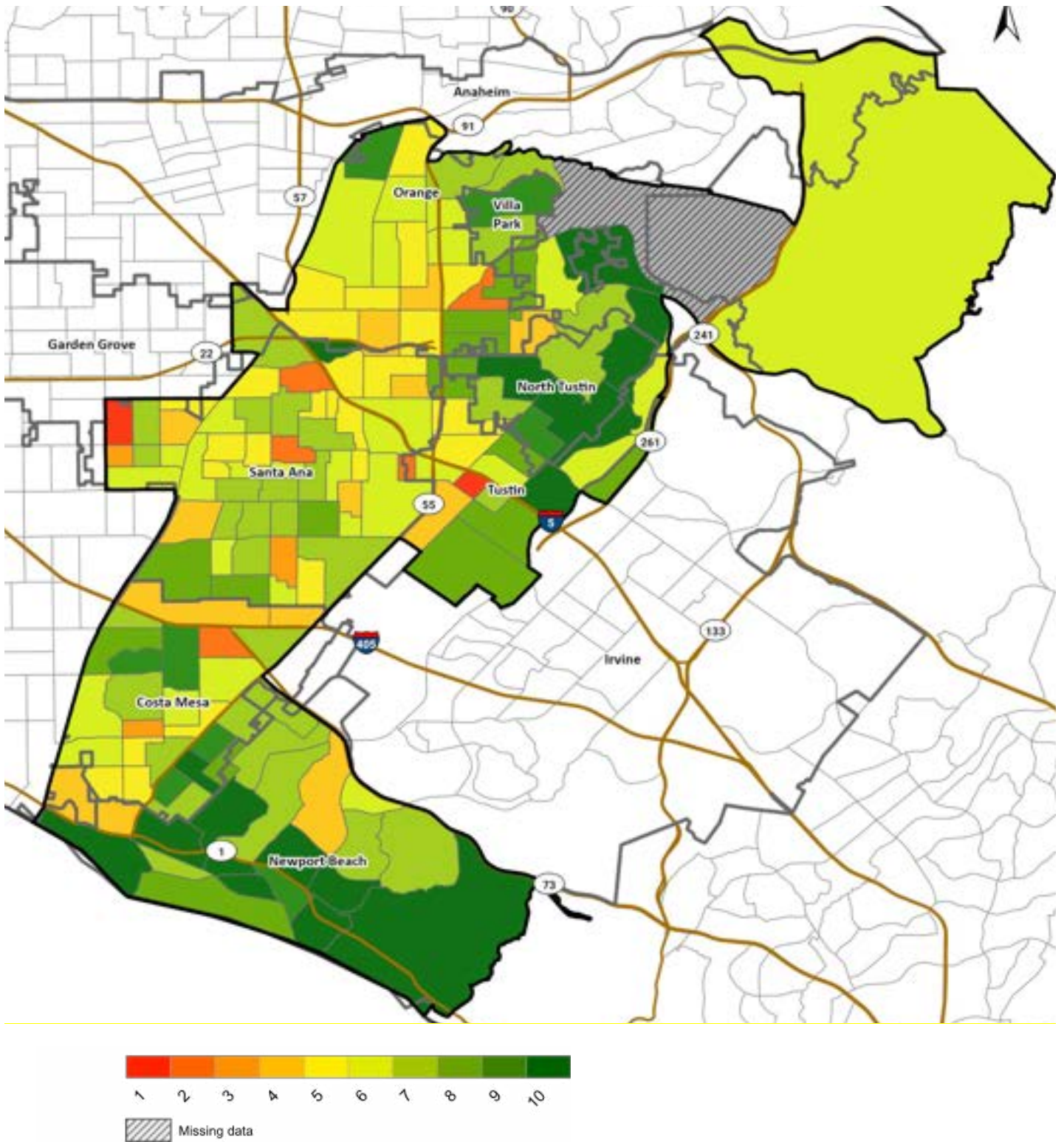
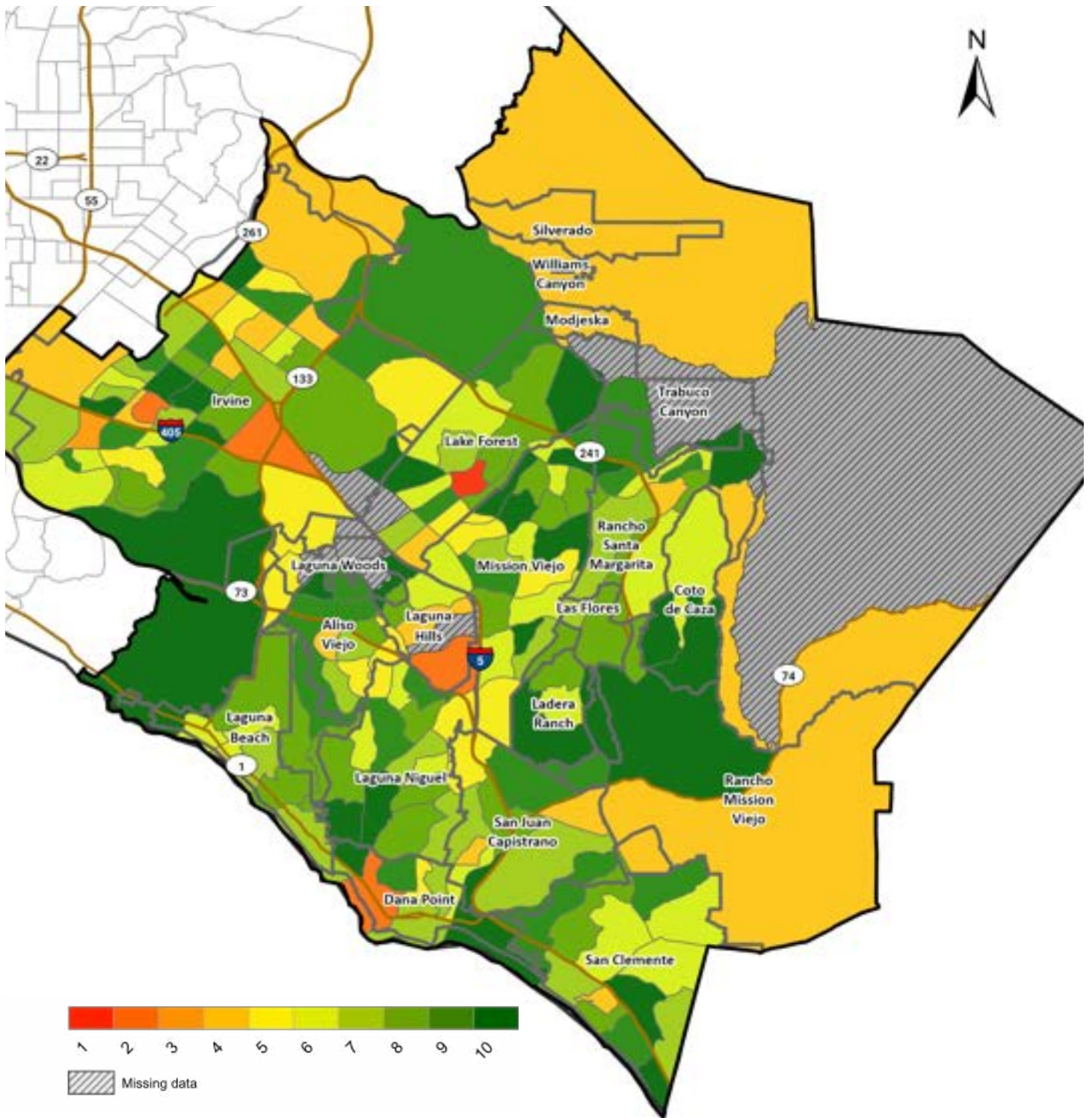


Figure 6: South Orange County Neighborhood Detail by 2022 FFSI-OC Using 2020 Boundaries (Map)



## Comparison to Previous FFSI-OC Findings

### Impact of 2020 Census Tract Boundary Changes

The year 2020 was a decennial Census year and, as is typical with the decennial Census, census tract boundaries were assessed and revised, as needed, to accommodate population expansion (or contraction). In Orange County, this led to a net 31 additional tracts, which was accomplished by splitting existing tracts into two or more tracts.<sup>32</sup> This change in census tract boundaries does not impact the ability to show change in the FFSI at the countywide level, nor the city, state, or national levels. It does, however, impact the ability to show change in the particular census tracts affected by the boundary changes. In light of these changes, and based on consultation with Orange County United Way leadership, FFSI-OC changes over time are shown in two ways to enable ongoing year-to-year comparisons:

1. **2020 Boundaries:** The primary neighborhood-level analysis uses the newer 2020 boundaries for single-year displays (as shown on pages 17-22 above). Also, beginning with last year's report, year-over-year change based on the 2020 census tract boundaries is displayed by adding each future year of FFSI-OC results, using the 2020 findings as a reference point for tracking change over time in neighborhoods. For this report, three years of FFSI-OC neighborhood-level results using this 2020 boundaries can be shown: 2020, 2021, and 2022.
2. **2010 Boundaries:** For data years 2020 through 2024, the 2020 boundary census tract data are also recombined to replicate the 2010 census tract boundaries in order to enable ongoing comparison with the 2012 through 2019 neighborhood-level results. This provides an extended view of the time series based on the 2010 boundaries, using the 2012 findings as a reference point for tracking change over time through 2024. In addition, the 5-year change analysis displayed in the section, "Analysis of Change Over Time," is based on the 2010 boundaries, as is the assessment of progress towards the FACE 2024 goal.

This dual analysis strategy for depicted change over time will be applied again next year. Once five years of data using the 2020 boundaries have accumulated, the change analysis display will transition wholly to using only the 2020 boundaries; the 2010 boundary analysis will be retired.

### Year-to-Year Comparisons

#### 2020 Census Tract Boundaries

As shown in Figure 7, comparison of the 2022 FFSI-OC results to the 2020 and 2021 results shows little lasting change in the percentage of neighborhoods scoring in the four lowest stability scores (1 through 4) and an increase in the percentage of neighborhoods scoring in the most stable ranges (scores of 7 through 10). Meanwhile, declines were seen in the moderate stability scores of 5 and 6:

- The percentage of neighborhoods at the lowest end of the range (scores of 1 and 2) rose from 3.2 percent in 2021 to 3.7 percent in 2022, but the 2022 value is similar to the 2020 value of 3.6 percent.

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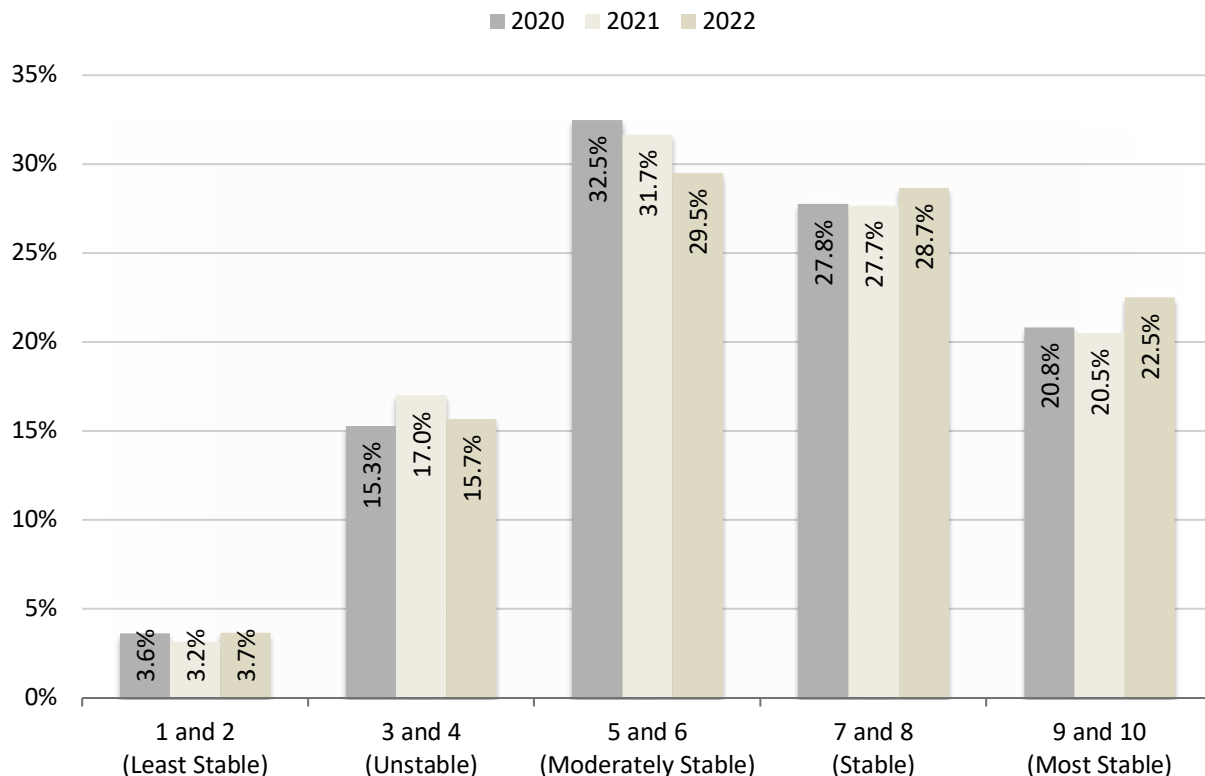
<sup>32</sup> 55 new tracts less 24 retired tracts equals 31 net additional tracts



- The percentage of neighborhoods in the “unstable” range of 3 and 4 fell from 17.0 percent of neighborhoods in 2021 to 15.7 percent in 2022, but the 2022 value remains higher than the 2020 value of 15.3 percent.
- The percentage of neighborhoods in the “moderately stable” range of 5 and 6 fell from 32.5 percent of neighborhoods in 2020 to 31.7 percent in 2021 and to 29.5 percent in 2022. Meanwhile, the percentage of neighborhoods scoring in the “stable” range of 7 and 8 rose slightly from 27.8 percent in 2020 to 28.7 of neighborhoods in 2022.
- The percentage of neighborhoods at the top of the range (scores of 9 and 10) grew two percentage points in one year, from 20.5 percent of neighborhoods in 2021 to 22.5 percent of neighborhoods in 2022.

Figure 7 and Figure 8 compare the FFSI-OC results using 2020 boundaries for the three years of data available by the selected score groupings described above. Figure 9 provides the detailed FFSI-OC score frequencies and distributions for the three years currently available using the 2020 boundaries.

**Figure 7: Percentage of Orange County Neighborhoods in Selected FFSI-OC Score Groupings, Year-to-Year Comparison Using 2020 Census Tract Boundaries, 2020 – 2022** (Chart)



Note: Data for this figure are derived from the U.S. Census Bureau, 2016-2020 through 2018-2022 American Community Survey 5-Year Estimates. All vintages use 2020 census tract boundaries.

**Figure 8: Percentage of Orange County Neighborhoods in Selected FFSI-OC Score Groupings, Year-to-Year Comparison Using 2020 Census Tract Boundaries, 2020 – 2022 (Table)**

	2020	2021	2022
1 and 2 (Least Stable)	3.6%	3.2%	3.7%
3 and 4 (Unstable)	15.3%	17.0%	15.7%
5 and 6 (Moderately Stable)	32.5%	31.7%	29.5%
7 and 8 (Stable)	27.8%	27.7%	28.7%
9 and 10 (Most Stable)	20.8%	20.5%	22.5%

Note: Data for this figure are derived from the U.S. Census Bureau, 2016-2020 through 2018-2022 American Community Survey 5-Year Estimates. All vintages use 2020 census tract boundaries.

**Figure 9: FFSI-OC Score Distribution by Orange County Neighborhood Using 2020 Census Tract Boundaries, 2020 – 2022 (Table)**

Family Financial Stability Index - Orange County (FFSI-OC) Score	2020	2021	2022
1	5	6	5
2	16	13	17
3	34	41	25
4	54	61	69
5	92	88	81
6	95	102	96
7	90	92	101
8	70	74	71
9	67	65	59
10	53	58	76
Missing Data	38	14	14
Census Tracts with Data	576	600	600

Note: Data for this figure are derived from the U.S. Census Bureau, 2016-2020 through 2018-2022 American Community Survey 5-Year Estimates. All vintages use 2020 census tract boundaries.

### 2010 Census Tract Boundaries

After six consecutive years of gradually improving FFSI-OC scores, family financial stability at the lowest levels began to worsen in 2020 but remains substantially better than 10 years ago. The 2022 results show slightly more neighborhoods scoring at the lowest levels of stability (scores of 1 and 2) than the previous four years of FFSI-OC results, but just one-third the level in 2012 (3.9 percent vs. 11.9 percent).<sup>33</sup> Scores in the unstable range of 2 and 3 have fluctuated in recent years, but also remain better than levels in 2012. Meanwhile, despite some year-to-year variation, changes in family financial stability in neighborhoods at the higher levels of stability (scores of 7 through 10) have generally trended upward since 2012. For example, nearly a quarter (22 percent) of neighborhoods now fall in the most stable ranges of 9 and 10, which is the highest percentage since tracking began. Neighborhoods in the stable range (scores of 7 and 8) have steadily increased in the past three years and remain eight percentage points higher than the 2012 baseline (20.8 percent vs. 20.0 percent). Most neighborhoods fall in the moderately stable range (scores of 5 and 6), but only slightly more; in 2022, 30.2 percent of neighborhoods fell in this range, compared to 29.0 percent in the next most common range of 7 and 8.

When analyzing the index components of employment, income, and rent burden, 2022 employment scores did not change in one year, while family income scores generally continued to improve. While the rent burden measure (the proportion of income spent on rent) fluctuates from year-to-year, there was a substantial increase in the percentage of neighborhoods in the highest stability level in 2022 and a general improving trend since the 2012 baseline.<sup>34</sup>

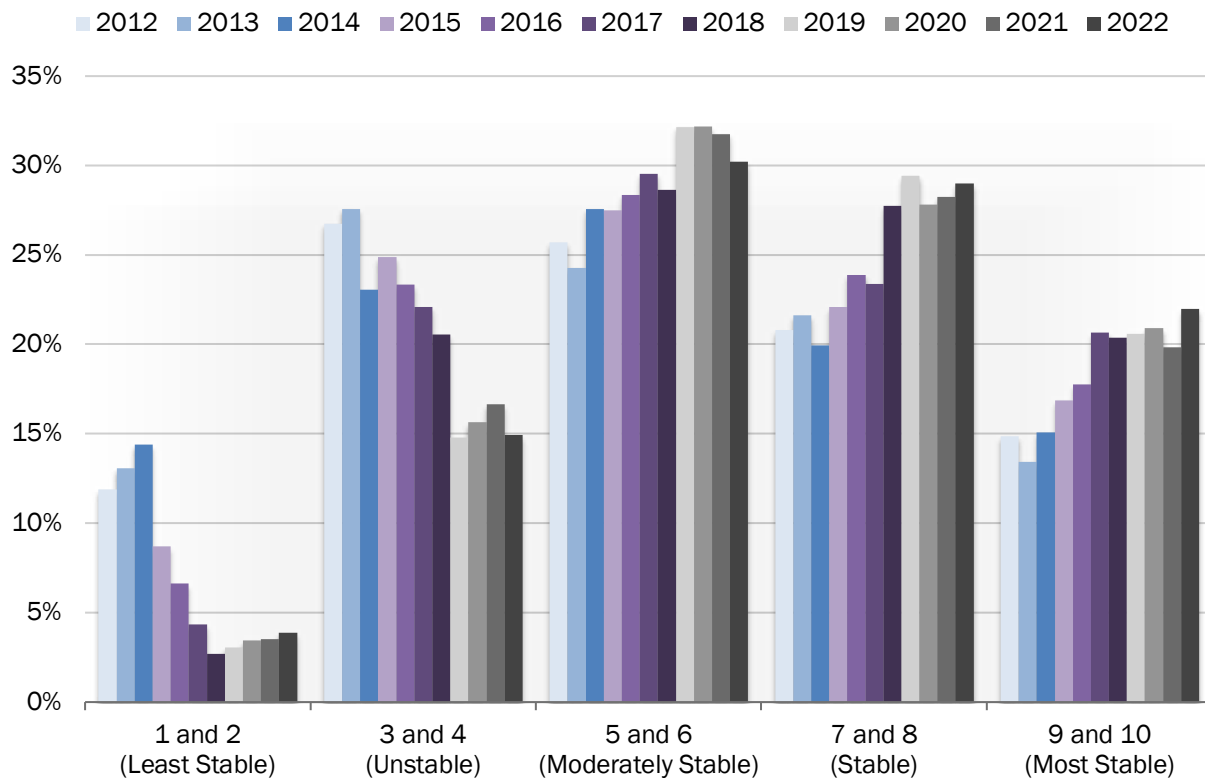
Figure 10 and Figure 11 compare the FFSI-OC results using 2010 boundaries for all 11 years of available data by the selected score groupings described above. Figure 12 and Figure 13 provide the detailed FFSI-OC score distributions using 2010 boundaries for all 11 years. Figure 14 provides a geographic display of 2022 FFSI-OC results using 2010 boundaries.

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<sup>33</sup> See Appendix A: Technical Notes for important considerations related to analysis of change over time.

<sup>34</sup> Appendix B contains additional results by component indicator scores.

**Figure 10: Percentage of Orange County Neighborhoods in Selected FFSI-OC Score Groupings, Year-to-Year Comparison Using 2010 Census Tract Boundaries, 2012 – 2022 (Chart)**



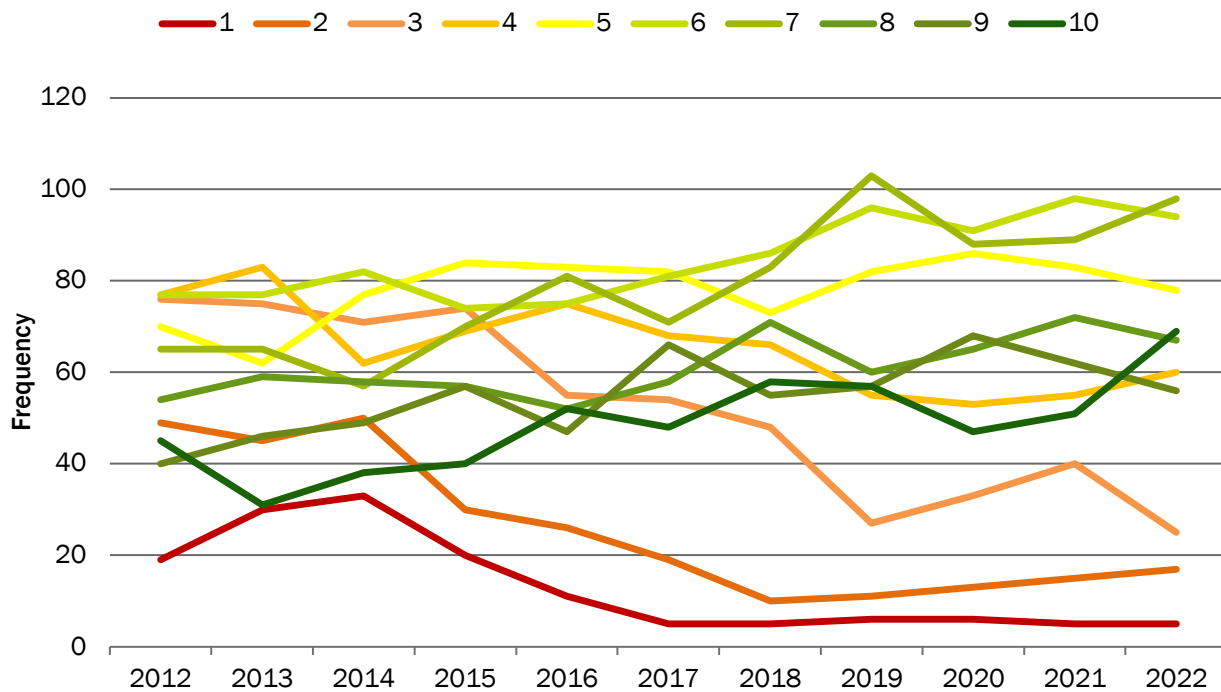
Note: Data for this figure are derived from the U.S. Census Bureau, 2008-2012 through 2018-2022 American Community Survey 5-Year Estimates. All vintages use 2010 census tract boundaries to facilitate year-over-year comparison.

**Figure 11: Percentage of Orange County Neighborhoods in Selected FFSI-OC Score Groupings, Year-to-Year Comparison Using 2010 Census Tract Boundaries, 2012 – 2022 (Table)**

	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
<b>1 and 2 (Least Stable)</b>	11.9%	13.1%	14.4%	8.7%	6.6%	4.3%	2.7%	3.1%	3.5%	3.5%	3.9%
<b>3 and 4 (Unstable)</b>	26.7%	27.6%	23.1%	24.9%	23.3%	22.1%	20.5%	14.8%	15.6%	16.7%	14.9%
<b>5 and 6 (Moderately Stable)</b>	25.7%	24.3%	27.6%	27.5%	28.4%	29.5%	28.6%	32.1%	32.2%	31.8%	30.2%
<b>7 and 8 (Stable)</b>	20.8%	21.6%	19.9%	22.1%	23.9%	23.4%	27.7%	29.4%	27.8%	28.2%	29.0%
<b>9 and 10 (Most Stable)</b>	14.9%	13.4%	15.1%	16.9%	17.8%	20.7%	20.4%	20.6%	20.9%	19.8%	21.9%

Note: Data for this figure are derived from the U.S. Census Bureau, 2008-2012 through 2018-2022 American Community Survey 5-Year Estimates. All vintages use 2010 census tract boundaries to facilitate year-over-year comparison.

**Figure 12: FFSI-OC Score Distribution by Orange County Neighborhood Using 2010 Census Tract Boundaries, 2012 – 2022 (Chart)**



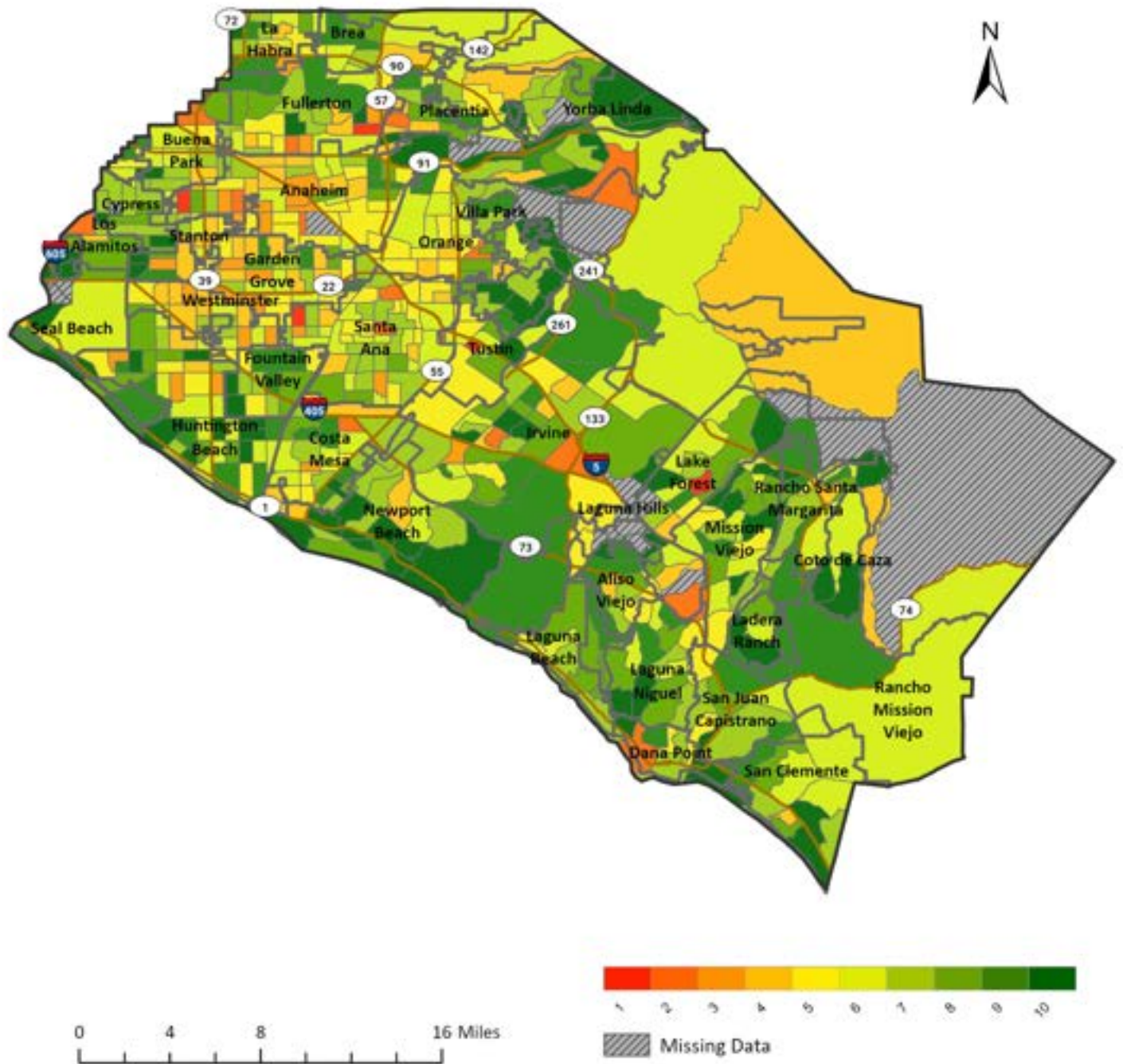
Note: Data for this figure are derived from the U.S. Census Bureau, 2008-2012 through 2018-2022 American Community Survey 5-Year Estimates. All vintages use 2010 census tract boundaries to facilitate year-over-year comparison. The total number of tracts with data varies annually given variation in data suppression, ranging from a high of 577 tracts with data in 2014 to a low of 550 in 2020.

**Figure 13: FFSI-OC Score Distribution by Orange County Neighborhood Using 2010 Census Tract Boundaries, 2012 – 2022 (Table)**

Family Financial Stability Index - Orange County (FFSI-OC) Score	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
1	19	30	33	20	11	5	5	6	6	5	5
2	49	45	50	30	26	19	10	11	13	15	17
3	76	75	71	74	55	54	48	27	33	40	25
4	77	83	62	69	75	68	66	55	53	55	60
5	70	62	77	84	83	82	73	82	86	83	78
6	77	77	82	74	75	81	86	96	91	98	94
7	65	65	57	70	81	71	83	103	88	89	98
8	54	59	58	57	52	58	71	60	65	72	67
9	40	46	49	57	47	66	55	57	68	62	56
10	45	31	38	40	52	48	58	57	47	51	69
Missing Data	11	10	6	8	26	31	28	29	33	13	14
Census Tracts with Data	572	573	577	575	557	552	555	554	550	570	569

Note: Data for this figure are derived from the U.S. Census Bureau, 2008-2012 through 2018-2022 American Community Survey 5-Year Estimates. All vintages use 2010 census tract boundaries to facilitate year-over-year comparison.

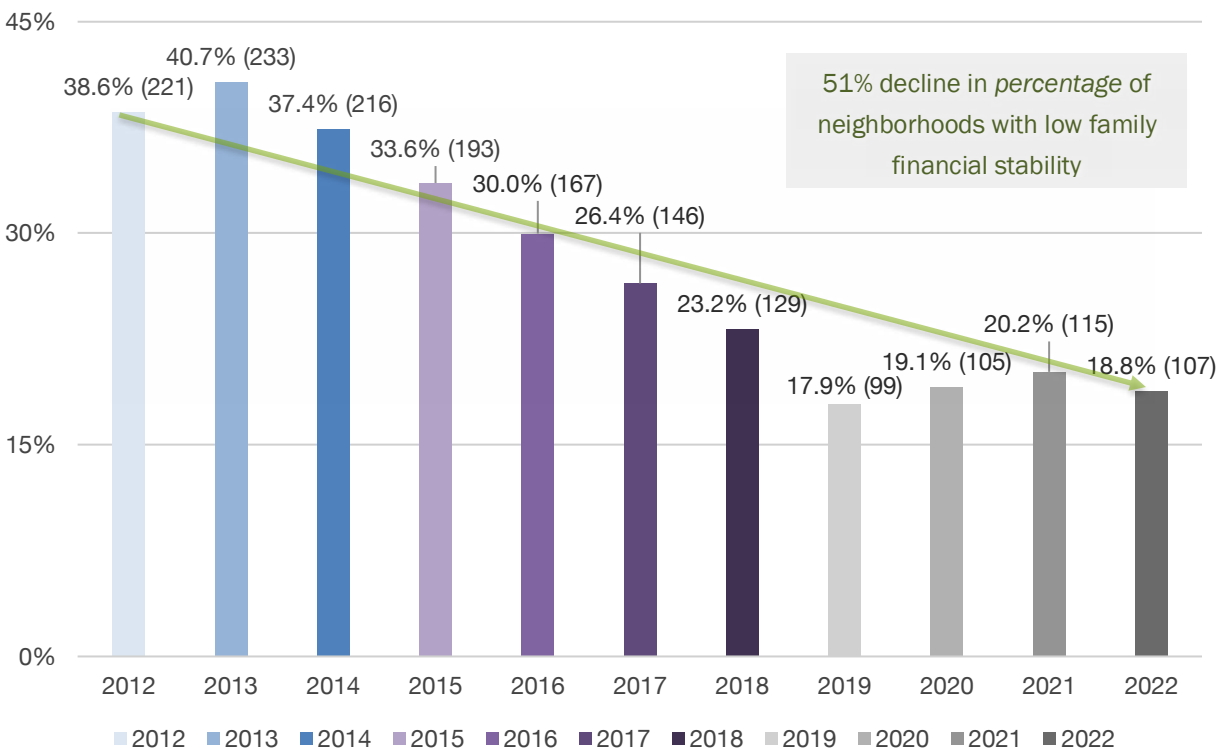
Figure 14: Orange County Neighborhoods by 2022 FFSI-OC Score Using 2010 Boundaries (Map)



## Progress Toward 2024 FACE Income Goal

The FFSI-OC is used as a proxy to track Orange County United Way’s progress toward their FACE 2024 goal to “reduce the percentage of financially unstable families by 25 percent.”<sup>35</sup> For this purpose, “financially unstable” is defined as a FFSI-OC score of 4 or lower. Figure 15 provides the proportion of neighborhoods that scored a four or lower in each year for which the FFSI-OC has been available. In 2012, 38.6 percent of neighborhoods (or 221 neighborhoods) scored a 4 or lower; in 2022, 18.8 percent of neighborhoods (or 107 neighborhoods) scored a 4 or lower. This is equivalent to an improvement of 51 percent in the percentage of neighborhoods scoring as financially unstable.<sup>36</sup> While family financial instability increased in 2020 and 2021 since the 10-year low in 2019, the percentage of neighborhoods with low levels of family financial stability declined in 2022 and remains low compared to historical FFSI-OC results.

**Figure 15: Progress Toward Orange County United Way FACE 2024 Goal; Change in Percentage of Neighborhoods with FFSI-OC Scores of 1 through 4, 2012 – 2022 (Chart)**



Note: Numbers of census tracts with FFSI-OC scores of 4 or less are displayed in parentheses. Data for this figure are derived from the U.S. Census Bureau, 2008-2012 through 2018-2022 American Community Survey 5-Year Estimates. All vintages use 2010 census tract boundaries to facilitate year-over-year comparison.

<sup>35</sup> The OCUW FACE 2024 goal aims to reduce the percentage of financially unstable *families*, while the FFSI-OC measures the percentage of *neighborhoods* that have high (or low) concentrations of families experiencing financial instability. The FFSI-OC does not provide a family count, so it cannot provide a precise calculation of change in the number of families that are financially unstable. However, the change in count and percentage of neighborhoods experiencing family financial instability acts as a proxy for a family count.

<sup>36</sup> Due to the variable number of census tracts with data in each year, and because the overall number of census tracts has declined over time due to data suppression on the part of the U.S. Census Bureau to protect privacy, change is calculated on the percentage of neighborhoods scoring 1-4 instead of the on the count of neighborhoods scoring 1-4.

## Analysis of Five-Year Change Over Time

This section provides an analysis of FFSI-OC score change in Orange County neighborhoods using five years of FFSI-OC results, from 2018 through 2022.<sup>37</sup> This analysis is based on the 2010 census tract boundaries.<sup>38</sup> Three categories of change identify neighborhoods in policy-relevant categories:

1. Persistently Low (moderately or very low)
2. Declining (rapidly or gradually declining)
3. Low, but Improving

These categories are defined by both the direction and rate of change over time in each census tract (“slope”) and the average FFSI-OC score over the past five years or the most recent FFSI-OC score (2022). The “persistently low” category is further broken out into two subcategories: persistently moderately low and persistently very low. The “declining” category is also broken out into two subcategories: rapidly declining and gradually declining. The last category, “low, but improving” does not have subcategories. More detailed definitions and rationales for each category are described below. Maps provide the location of neighborhoods within the three categories and their subcategories (Figure 17 through Figure 20). Any tract that did not meet the defined thresholds for one of the three policy-relevant categories is left blank.

Figure 16 provides the count and percent of census tracts in each category for the 2022 FFSI-OC.

**Figure 16: Census Tract Distribution by 5-Year Change Category, 2022 (Table)**

5-Year Change Category	Count	Percent
Persistently Very Low	6	1.0%
Persistently Moderately Low	37	6.3%
Rapidly Declining	14	2.4%
Gradually Declining	4	0.7%
Low, but Improving	29	5.0%
(no data or trajectory not in a designated category)	493	84.6%
<b>TOTAL</b>	<b>583</b>	<b>100%</b>

<sup>37</sup> See Appendix A for discussion of analysis constraints related to change over time. The five years of FFSI-OC scores analyzed for the change analysis encompass nine years of survey data, from 2014-2022, due to each vintage of the 5-Year ACS comprising five years of survey responses (e.g., the 2018 5-Year estimates includes survey responses gathered from 2014 through 2018).

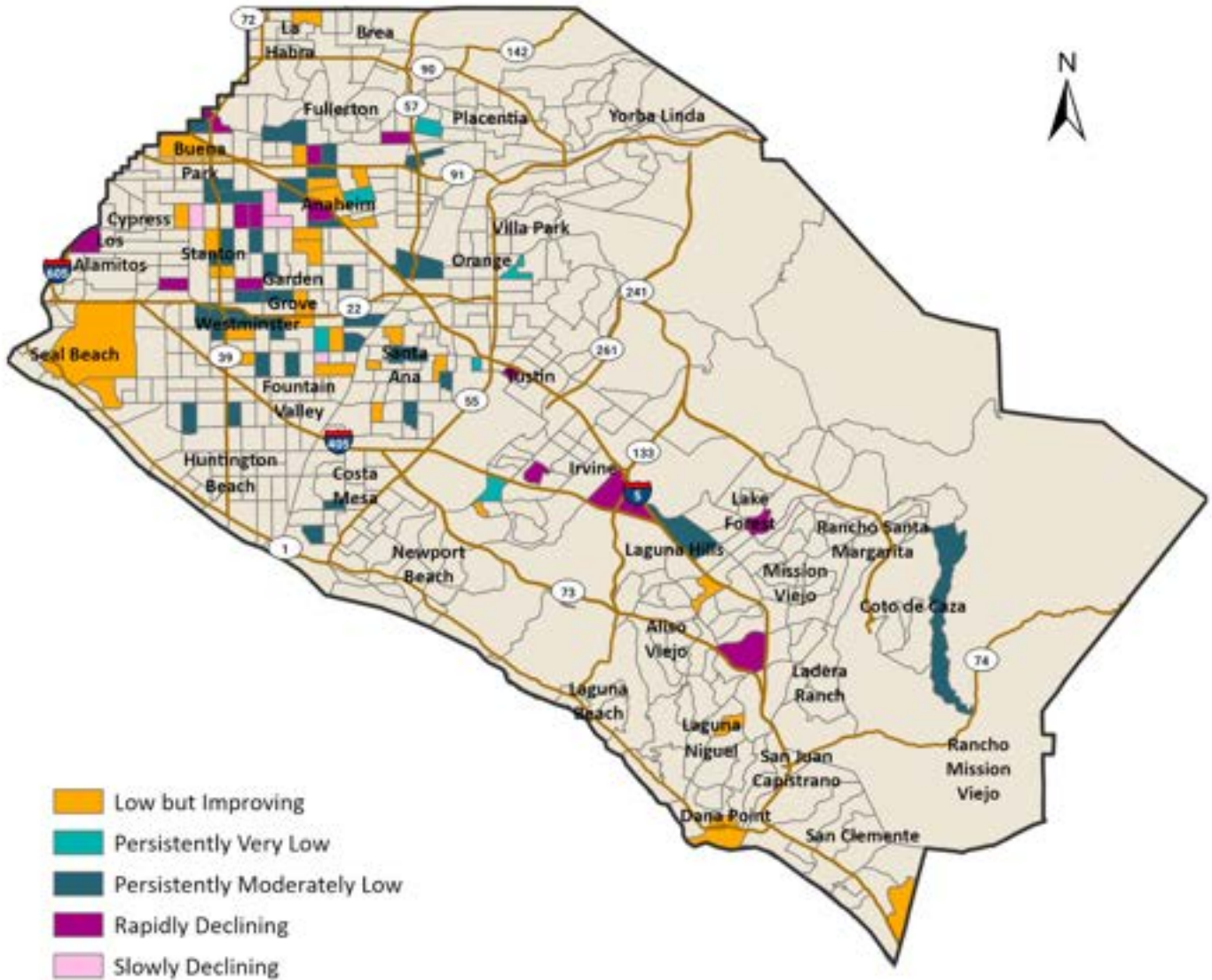
<sup>38</sup> The 2010 boundaries will remain the basis for this analysis until five years of FFSI-OC results have accumulated using the 2020 boundaries, at which time, this analysis will shift to using the 2020 boundaries. This milestone will be realized in the 2024 vintage of the FFSI-OC.



### All Change Categories

The summary map in Figure 17 identifies tracts that met the criteria for one of the five policy-relevant categories of change. Detailed maps by category follow.

Figure 17: Neighborhoods Identified as One of Five Categories of FFSI-OC Change, 2018-2022 (Map)



Note: Data for this figure are derived from the U.S. Census Bureau, 2014-2018 through 2018-2022 American Community Survey 5-Year Estimates. All vintages use 2010 census tract boundaries to facilitate year-over-year comparison.

### "Persistently Low" Category

The “persistently low” category includes neighborhoods that have had a low level of family financial stability, on average, for the past five years of FFSI-OC results, with little change during that period. These neighborhoods demonstrate entrenched family financial challenges, where there are many families with low levels of financial stability and this situation has not changed notably over the past five years. Two tiers within this overall category are defined as follows:

- Persistently Very Low:
  - Low level of change in score over the past five years (slope range: -0.5 to +0.5), and five-year average FFSI-OC score of 2.5 or under.
- Persistently Moderately Low:
  - Low level of change in score over the past five years (slope range: -0.5 to +0.5), and five-year average FFSI-OC score greater than 2.5 and up to 4.

After scoring as persistently very low for all 10 years of the FFSI, tract 876.01 in Anaheim, due west of Disneyland, moved up to the low, but improving category in 2022. Demographic data and a map of this neighborhood can be viewed at [this link](#).

Several other neighborhoods have consistently remained in the “persistently low” categories, alternating between “very” and “moderately” low. These include the following tracts:

- [626.11](#) in Irvine, near UCI, where the median age is 26 (compared to 39 countywide) and most individuals are unmarried, suggesting a high student population.
- [878.03](#) in Stanton and Anaheim, south of Ball Road, north of Katella Avenue, and between Dale Street and Beach Boulevard.
- [884.02](#) in Anaheim and Garden Grove, between Orangewood Avenue and Lampson Avenue in the north-south direction, and between West Street and Harbor Boulevard in the east-west direction.
- [998.02](#) in Westminster, bisected by Westminster Boulevard and between Hoover Street and Beach Boulevard in the east-west direction.



### "Declining" Category

The "declining" category includes neighborhoods that are either declining rapidly to a moderate or low level of stability, or declining at a more moderate rate, but to a low level of stability. This category enables stakeholders to identify neighborhoods that have seen family financial stability fall to a low average level over the past five years. Neighborhoods that may be declining in stability but remaining at a higher level of stability do not meet the criteria for this category.

- Rapidly Declining to moderate or low stability:
  - High level of negative change in score over the past five years (slope range: -0.8 or lower), and five-year average FFSI-OC score of 5 or under.
- Gradually Declining to low stability:
  - Moderate level of negative change in score over the past five years (slope range: -0.6 to -0.7), and five-year average FFSI-OC score of 4 and under.

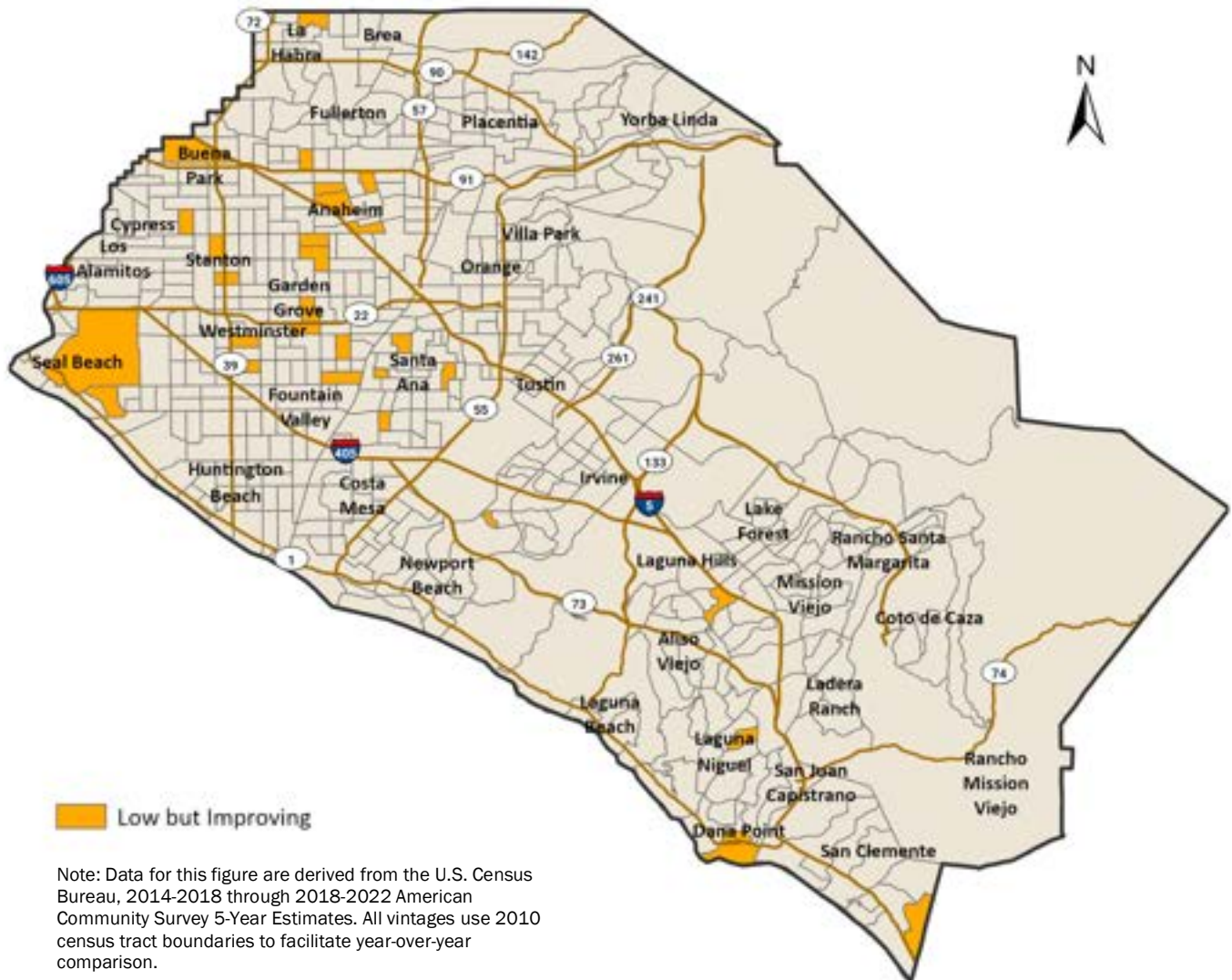


### "Low but Improving" Category

The "low but improving" category includes neighborhoods that have witnessed either slow or rapid increases in FFSI-OC scores, but remain at an average FFSI-OC score of 5 or under for the past five years.<sup>39</sup> This category enables stakeholders to identify struggling neighborhoods where conditions have improved, potentially allowing for identification of interventions or protective factors that may have contributed to improvement.

- Slope range of 0.6 and over and FFSI 5-year average of 5 and under

**Figure 20: Neighborhoods with Low, but Improving FFSI-OC Scores, 2018-2022 (Map)**



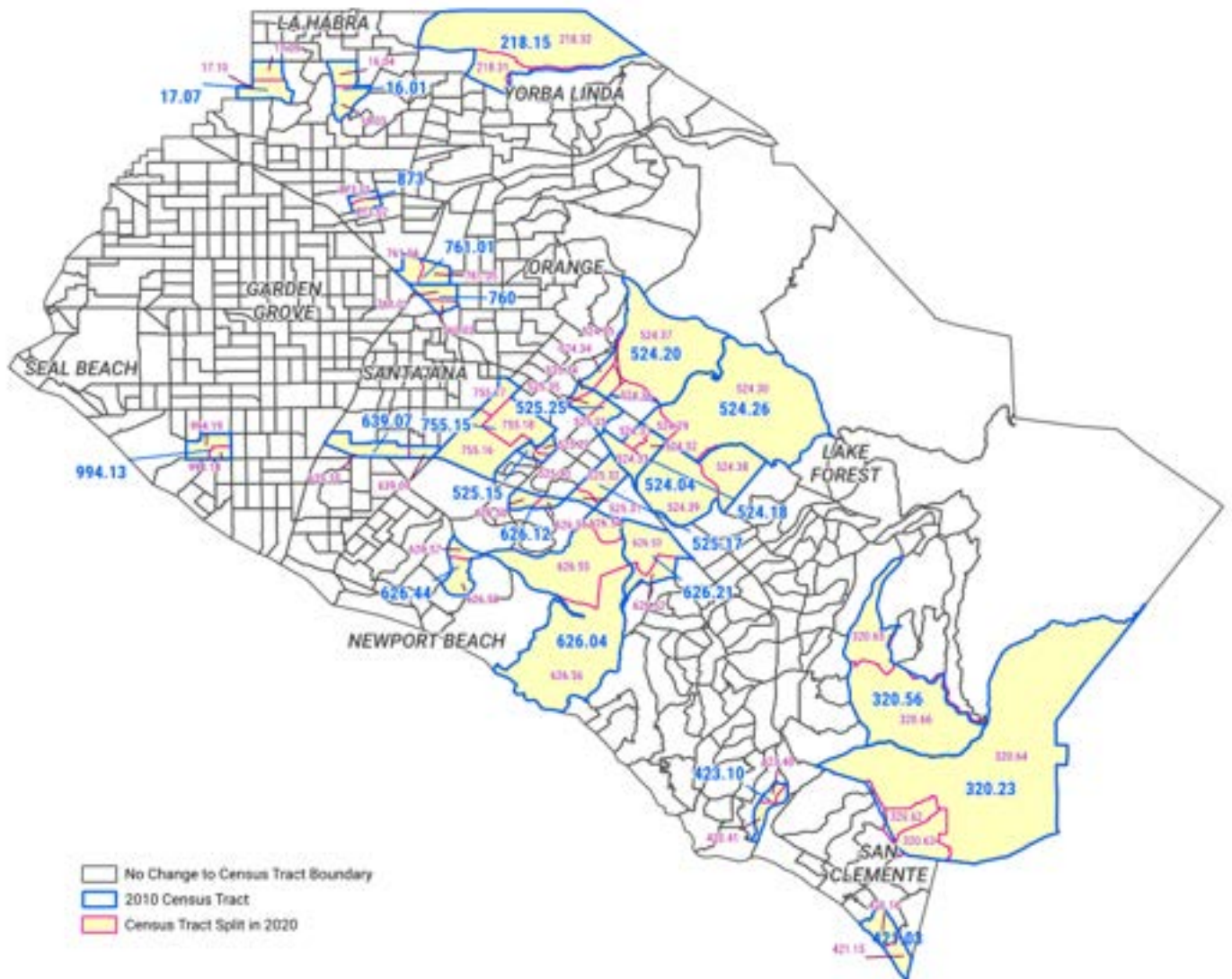
<sup>39</sup> In the 2018 calculation of change, the slope parameter for the "low, but improving" category was changed from the previous "0.8 and over" to "0.6 and over." This change reduces the importance of the speed of change on a neighborhood's designation, capturing neighborhoods that are improving more slowly than under previous parameters. Additionally, by reducing the slope to 0.6, there is now a seamless progression from a "persistently low" designation, which has a slope range of -0.5 to +0.5, to a "low, but improving" designation for neighborhoods that are progressing slowly out of persistently low scores.

# Appendix A: Technical Appendix

## Census Tract Boundary Changes

Every ten years, in anticipation of the decennial census, the U.S. Census Bureau reviews and, if necessary, revises the geographic boundaries it uses to summarize data, including census tracts. In 2020, the U.S. Census Bureau split several census tract boundaries in areas of Orange County that witnessed population increases, creating a net of 31 additional tracts (55 new tracts less 24 tracts retired). The map in Figure A.1 displays the changes in census tract boundaries, and the resulting changes in the numeric identification of each tract, between 2010 and 2020.

Figure A.1: Changes in Orange County Census Tracts Between 2010 and 2020 (Map)



### ***Alternatives for FFSI-OC Analysis and Display***

The boundary change in 2020 prompted the research team to consider several alternative ways to analyze the data, with each presenting advantages and disadvantages. The first option considered was to wholly ignore the new boundaries and recombine the 2020 data into the 2010 boundaries for the affected tracts. This option had the advantage of providing continuity with previous FFSI-OC results, but it did not acknowledge the methodological rationale behind the splitting of the tracts. Combining the data might conceal policy relevant distinctions in neighborhoods. For example, a combined tract could have an FFSI-OC score of 5, but when split, one newly created tract might score a 3 while the other scored a 7 – two very different outcomes that would warrant different interventions.

The second option considered was to recombine the data into the 2010 boundaries, but also calculate the FFSI-OC score for the census tracts newly created in 2020. This option provided continuity like the first option, while also enabling stakeholders to uncover potential distinctions in financial stability within historically combined geographies that were separated beginning in the 2020 data.

The third option considered was to transition the FFSI-OC to the 2020 boundaries but retain the 2010 boundaries for the five-year change analysis, as well as the 10-year year-to-year comparisons. This alternative harnesses the advantages of showing results for the newly split tracts cited in the second option and supports the Census Bureau’s methodological rationale for splitting the tracts by using the new boundaries for the dominant display of the results. The disadvantage of this option is that year-over-year comparisons would restart in 2020 and would not be comparable to previous results, including the ability to track consecutive progress toward the FACE 2024 goal. However, by combining the 2020 data into the 2010 boundaries for the purposes of the five-year change analysis, some level of trend analysis would still be possible. This was the option selected by Orange County United Way leadership for the 2021 FFSI-OC results.

The fourth option considered was to wholly transition to the 2020 boundaries. The advantages and disadvantages of proceeding with the 2020 boundaries cited in the third option would persist. In addition, the ability to show any change over time would be lost by starting trend analysis anew in 2020. The five-year change analysis would not be possible.

The census tract boundary changes only impact FFSI-OC results at the census tract level, which is the dominant display of the data and the level at which the FFSI methodology was optimized. The boundary changes do not impact the analysis of FFSI-OC data at the place, county, state, or national levels.

### ***Comparison Between Findings for Old (2010) and New (2020) Census Tracts***

For the 2020 FFSI-OC, the research team conducted an analysis of the new tracts using the 2010 boundaries compared to the 2020 boundaries to understand how the change impacted FFSI-OC scores. As displayed in Figure A.2, for many of the new tracts, the 2020 FFSI-OC scores are similar regardless of whether the 2020 or 2010 boundaries are used. In others, the creation of new tracts uncovered nuance that was masked when the data was pooled in a larger geography. For example, the 2020 FFSI-OC score for 2010-boundary tract number 524.04 (in Irvine) was a 4, which is in the



less stable range of the FFSI continuum from 1 to 10. In 2020, tract 524.04 was split into two tracts, becoming 524.38 and 524.39, which scored a 3 and 8, respectively. These findings reveal that the larger tract masked the presence of a financially stable neighborhood (8) and a less stable neighborhood scoring low (3). For some tracts, the split into more than one tract had unexpected results. For example, 2010-boundary tract number 320.56 (in Las Flores and Rancho Santa Margarita) had a 2020 FFSI-OC score of 10; however, in 2020 the new tracts designated as 320.65 and 320.66 scored a 9 and a 7, respectively. In this circumstance, the larger tract masked the variability within each of the new tracts. For example, tract 320.65, which scored a 9, had a somewhat higher unemployment rate, but no families that were rent burdened or low income. Tract 320.66, which scored a 7, had no unemployment, but many families rent burdened and a moderate proportion of low-income families. When recombined to calculate the 2020 FFSI-OC score using the 2010 boundaries, these variations in the FFSI-OC components offset each other, so that the resulting composite tract appears very financially stable, scoring a 10 on the continuum.

**Figure A.2: Comparison of 2020 FFSI-OC Scores for Retired and New Census Tract Boundaries**  
(Table)

Retired 2010 or New 2020 Boundary	Census Tract	FFSI-OC 2020	Retired 2010 or New 2020 Boundary	Census Tract	FFSI-OC 2020
Retired	16.01	7	Retired	525.17	9
	16.03	8		525.31	10
New	16.04	7	New	525.32	7
Retired	17.07	9	Retired	525.25	4
	17.09	*		525.33	6
New	17.1	9	New	525.34	4
Retired	218.15	7		525.35	5
	218.31	6	Retired	626.12	9
New	218.32	9		626.50	10
Retired	320.23	9	New	626.51	7
	320.62	*	Retired	626.21	6
New	320.63	6		626.52	6
	320.64	7	New	626.53	5
Retired	320.56	10	Retired	626.04	6
	320.65	9		626.54	5
New	320.66	7	New	626.55	10
Retired	421.03	8		626.56	*
	421.15	8	Retired	626.44	7
New	421.16	8		626.57	5
Retired	423.10	5	New	626.58	10
	423.40	4	Retired	639.07	7
New	423.41	6	New	639.09	8

Retired	524.26	8	639.10	5	
New	524.29	7	Retired	755.15	6
	524.30	9		755.16	5
Retired	524.18	7	New	755.17	5
	524.31	10		755.18	6
New	524.32	8	Retired	760	4
	524.33	7		760.01	3
Retired	524.20	8	New	760.02	*
	524.34	8	Retired	761.01	3
New	524.35	10		761.04	4
	524.36	*	New	761.05	2
	524.37	4	Retired	873	1
Retired	524.04	4		873.01	2
	524.38	3	New	873.02	2
New	524.39	8	Retired	994.13	9
Retired	525.15	7		994.18	8
	525.29	7	New	994.19	10
New	525.30	6			

Note: Data for this figure are derived from the U.S. Census Bureau, 2016-2020 American Community Survey 5-Year Estimates. \*No data.

## Impact of the Coronavirus Pandemic on Census Data

In July of 2021, the U.S. Census Bureau reported that they would not release 2020 1-Year American Community Survey (ACS) results due to the challenges associated with collecting data during the 2020 coronavirus pandemic, which started in earnest in the United States in March 2020. In the months from April 2020 through June 2020, the ACS experienced response rates that were a fraction of typical response rates, rendering the 1-Year results unreliable due to nonresponse bias.<sup>40</sup> Whether the 5-Year dataset, which is the ACS dataset underlying the FFSI, would be similarly impacted was unclear. Fortunately, in their delayed March 2022 release of the 5-Year dataset, the U.S. Census Bureau reported that after revising their methodology to reduce nonresponse bias in the full 2016-2020 5-Year dataset, the 5-Year data are now approved for public release and for government and business uses. Consequently, the pandemic did not have a significant impact on the reliability of the FFSI's underlying data.

<sup>40</sup> U.S. Census Bureau, ACS Research and Evaluation Report Memorandum Series #ACS21-RER-04, retrieved on May 27, 2022 from [https://www.census.gov/content/dam/Census/library/working-papers/2021/acs/2021\\_CensusBureau\\_01.pdf](https://www.census.gov/content/dam/Census/library/working-papers/2021/acs/2021_CensusBureau_01.pdf)

## Missing Data

The 2022 FFSI-OC neighborhood level analysis returned no data for one or all three of the index components for 14 out of the 614 Orange County census tracts using the 2020 census tract boundaries and 14 out of the 583 Orange County census tracts using the 2010 boundaries. In 2016, the Census Bureau implemented stricter data suppression standards for the Housing data, which is a custom tabulation. This had the effect of increasing missing data from between six and 11 census tracts prior to 2016 to 26 census tracts in 2016, 31 in 2017, 28 in 2018, 29 in 2019, 33 in 2020, and 13 in 2021 (using 2010 boundaries). Using 2020 boundaries, data were missing for 38 census tracts in 2020 and 14 in 2021. Data are suppressed to protect confidentiality in census tracts with few families with children.

The census tracts that have historically been suppressed have typically been areas that have few residential dwellings or few families with children, such as the former El Toro Marine Corps base, Disneyland, or Laguna Woods, which is a community for residents 55 years of age or older.

Further, with only minor exceptions, the suppressed census tracts have historically scored 5 or higher on the FFSI-OC. Since the policy focus of the FFSI-OC is family financial instability, the omission of data for these census tracts has little impact on the utility and function of the FFSI-OC.

## Discussion of Monitoring Change Over Time

### *Data Constraints*

Changes in the FFSI for neighborhoods from one year to the next can be used to depict the estimated status of these areas each year with regard to family financial stability. However, due to the overlapping nature of ACS five-year estimate data, formal statistical trend analysis cannot be used to compare changes annually from one year to the next. For example, the 2022 FFSI-OC scores presented in this report are based on cumulative data gathered by the Census Bureau over the five-year period from 2018 to 2022. When FFSI-OC scores are calculated again next year, the underlying data will come from the five-year period from 2019 to 2023, meaning that the FFSI-OC scores from these two periods will be based on overlapping sets of data, violating the technical assumptions of a comparative statistical analysis.<sup>41</sup> Despite this constraint, the FFSI allows for monitoring change over time without the use of formal statistical trend analysis, while being mindful that these five-year estimates are not point estimates for specific years, but rather moving averages for all years included in the five-year interval. For example, now that multiple waves of FFSI-OC scores are available, for the past several years, this report has identified neighborhoods that show a trend of deteriorating, stable, or improving FFSI-OC scores (see the preceding section “Analysis of Five-Year Change Over Time”).

### *Statistical Significance Testing of Non-Overlapping Datasets*

The baseline FFSI-OC calculation used 2008-2012 data and the current calculation uses 2018-2022 data, therefore it is now possible to use non-overlapping five-year intervals to provide more formal statistical tests and trend analysis, comparing one five-year interval with the preceding five-year

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<sup>41</sup> <https://www.census.gov/content/dam/Census/library/publications/2009/acs/ACSResearch.pdf>

interval.<sup>42</sup> Since the FFSI is an index of calculated percentages composed of three separate indicators, each with internal cut points, the data would require substantial manipulation to enable reliable significance testing. To date, the research team has not conducted this analysis. It is unclear whether the analysis would add analytical or policy value beyond what the existing change analysis already provides.

### **Change Stability Test**

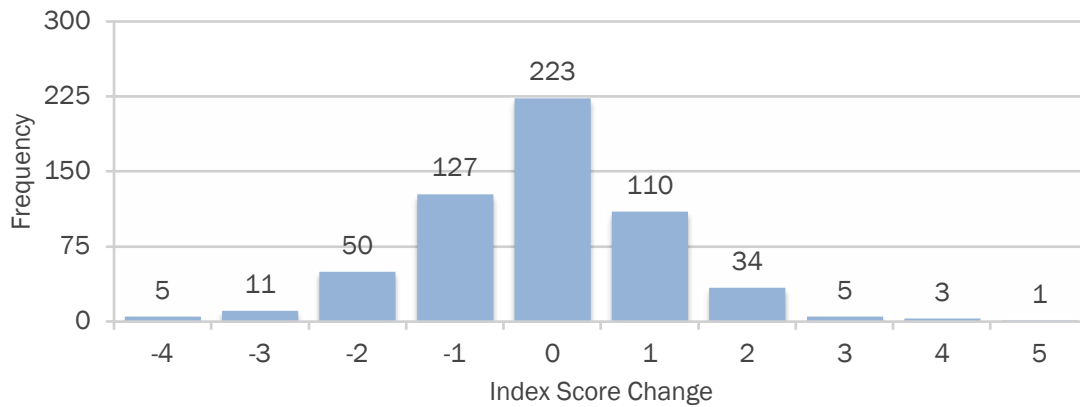
During the development of the index, the stability of the measures over time was tested. Given that adjacent five-year estimates contain a large fraction of duplicate household data, and that family financial stability is not expected to change quickly for entire census tracts, a valid measure of family financial stability based on the five-year Census estimates was not expected to change dramatically from year-to-year for most neighborhoods. To check the performance of the FFSI-OC in this regard, component and overall index scores for each census tract were calculated using 2008-2012 and 2009-2013 ACS five-year estimates. Then variation in index scores was measured to gauge for wide fluctuations or unexpected variance. Modest variation was found between these estimates, consistent with the intent of the index, i.e., to be sensitive to change over time but not overly sensitive to random noise or subject to dramatic, unrealistic fluctuations. Specifically, it was found that:

- Index scores of 39 percent of census tracts did not change at all between the 2008-2012 five-year estimates (referred to as 2012) and the 2009-2013 five-year estimates (referred to as 2013).
- Index scores of 81 percent of census tracts changed by one (1) point or not at all between the 2012 and 2013 results.
- Changes were close to normally distributed as pictured in Figure A.3.

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<sup>42</sup> <https://www.census.gov/content/dam/Census/library/publications/2009/acs/ACSResearch.pdf>;  
<https://www.census.gov/programs-surveys/acs/guidance/statistical-testing-tool.html>;  
[https://www2.census.gov/programs-surveys/acs/tech\\_docs/statistical\\_testing/2016StatisticalTesting1year.pdf?](https://www2.census.gov/programs-surveys/acs/tech_docs/statistical_testing/2016StatisticalTesting1year.pdf?)

**Figure A.3: Change in FFSI-OC Score Between 2012 Results and 2013 Results (Chart)**



**Figure A.4: Change in FFSI-OC Score Between 2012 Results and 2013 Results (Table)**

Change, 2012 to 2013, FFSI-OC Score	Frequency	Percent
	(number of Orange County census tracts)	(including only tracts without missing data)
-5	0	0.0%
-4	5	0.9%
-3	11	1.9%
-2	50	8.8%
-1	127	22.3%
0	223	39.2%
1	110	19.3%
2	34	6.0%
3	5	0.9%
4	3	0.5%
5	1	0.2%
<b>Total</b>	<b>569</b>	<b>100.0%</b>
<b>Missing</b>	<b>10</b>	
<b>Total</b>	<b>579</b>	

## Appendix B: Census Tract Component Indicator Scores

Analysis of FFSI-OC indicator scores for each of the three FFSI components helps clarify the drivers behind overall score changes.<sup>43</sup> However, particularly when viewing FFSI results at the component indicator level, it is important to bear in mind that the data reflect overlapping five-year pooled estimates. This results in a lag effect in the data, since findings reported for a given year are a cumulative result from that year and the previous four years. For example, 2022 FFSI-OC component indicator results contain the pooled data from the 2018, 2019, 2020, 2021, and 2022 American Community Survey, and therefore, contain the potential residual effects of earlier neighborhood conditions on the 2022 FFSI-OC indicator results.

An analysis of the trends observed in the 2012 through 2022 FFSI-OC indicator scores using 2010 boundaries for Income and Employment can illustrate this residual effect. The 10 years of FFSI-OC results from 2012 through 2020 reflect data collected in 2008 through 2021. This period overlaps with the 2007-2009 Great Recession and the recovery. When observing the proportion of neighborhoods that received an income indicator score of 0 (the lowest indicator score possible), we see that the proportion increases between 2012 and 2014 and then starts to decline in 2015. This worsening between 2012 and 2014, which includes data from 2008 through 2014, likely reflects the lagging effect of data from the recession years. The improvement seen in the 2015 results (which includes data from 2011 through 2015) and in later years reflects data collected after the recession and fully within the recovery period. It is notable that income scores continue to show improvement in the 2020 and 2021 FFSI-OC results, which overlap with the first years of the coronavirus pandemic, when the federal government issued relief payments to buffer against the massive unemployment experienced due to the shutdown. These positive trends continued into the 2022 FFSI-OC results.

The employment indicator results show less of a residual effect of recession-years data. It may be intuitive to expect income to lag employment. Indeed, in the 2015 to 2019 period, which reflects data collected between 2011 and 2019 and corresponds with the recovery and beyond, we begin to see the improvement in family income indicator scores that one would anticipate with rising employment levels. As anticipated, the employment component scores in the 2020 and 2021 FFSI-OC showed the impact of unemployment owing to the pandemic-related shutdowns. FFSI-OC employment component scores have been largely unchanged between 2021 and 2022.

Rent burden fluctuates from year to year, but a modest shift from lower stability to higher stability can be observed over this period.

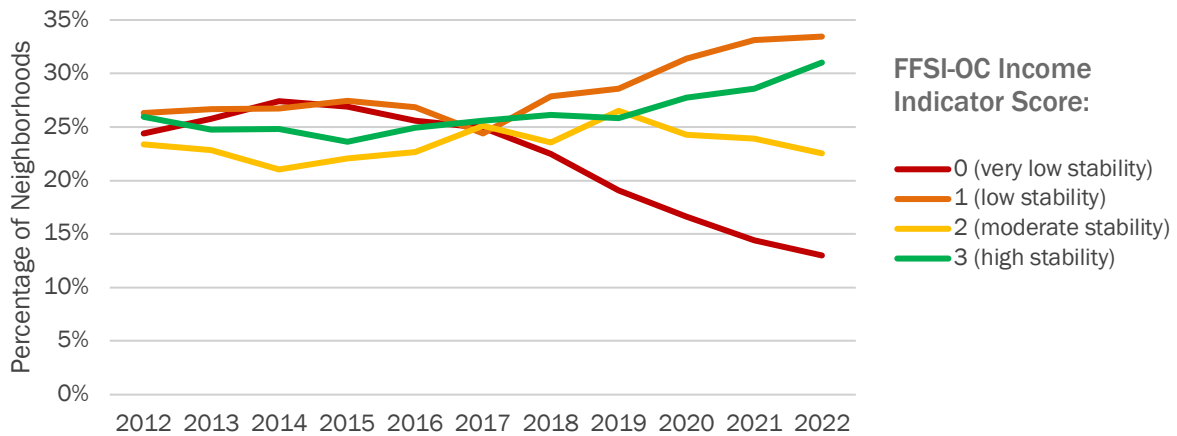
Figures B.1 through B.3 show the trend in indicator scores for the three FFSI-OC components of income, employment, and housing based on 2010 census tract boundaries.<sup>44</sup>

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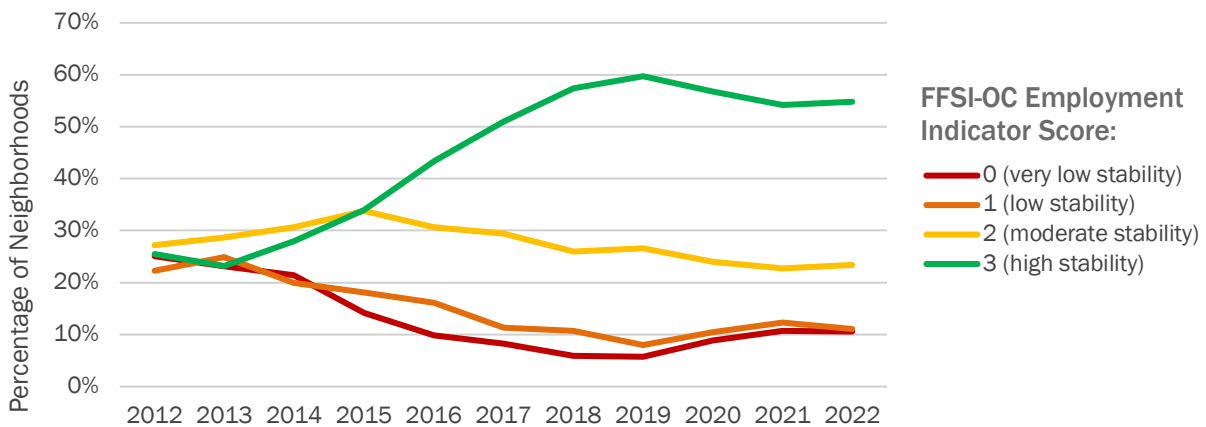
<sup>43</sup> Indicator scores are values of 0, 1, 2 or 3 assigned to each geography based on performance on each of the three index components. See Methodology section for a description of the cut points used to assign indicator scores and the composite index formula used to calculate the FFSI-OC score for each geography.

<sup>44</sup> Component scores based on 2020 census tract boundaries will be provided in subsequent years.

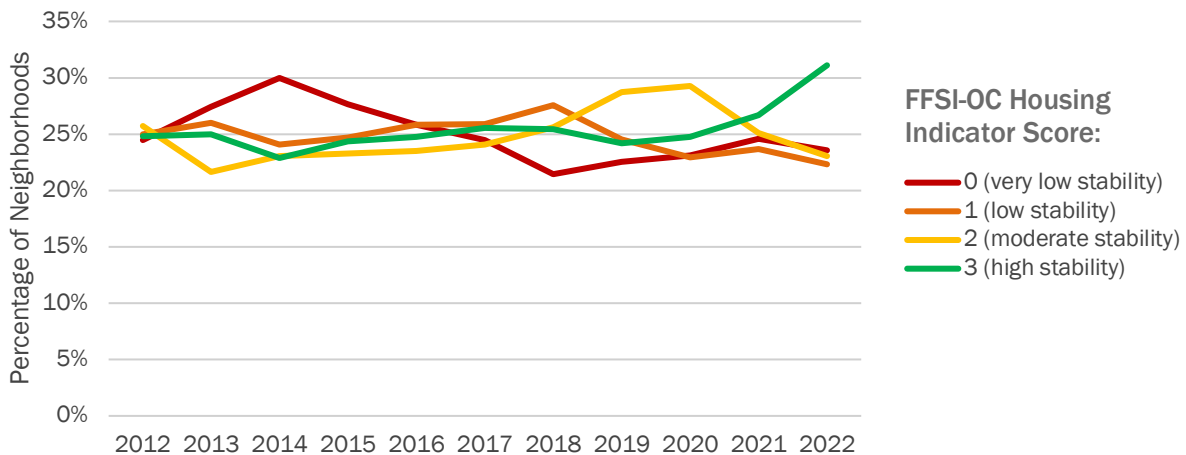
**Figure B.1: FFSI-OC Income Indicator Scores Based on 2010 Census Tract Boundaries: Percentage of families with children under age 18 with incomes under 185 percent of poverty, 2012-2022 (Chart)**



**Figure B.2: FFSI-OC Employment Indicator Scores Based on 2010 Census Tract Boundaries: Percentage of families with children under age 18 with one or more unemployed adults seeking employment, 2012-2022 (Chart)**



**Figure B.3: FFSI-OC Housing Indicator Scores Based on 2010 Boundaries: Percentage of families with children under age 18 spending more than 50 percent of income on rent, 2012-2022 (Chart)**



## Appendix C: Place-Level FFSI-OC Findings

At a less granular level of detail than census tracts, Orange County is divided into 45 geographic places, of which 42 could be scored in 2022 using the FFSI-OC methodology.<sup>45</sup> Geographic places include incorporated areas (cities) and unincorporated areas (census designated places, or CDPs), and are always within a single state or equivalent entity, but may extend across county and county subdivision boundaries.<sup>46</sup> The distribution of FFSI-OC scores across these geographic places is displayed in Figures C.1 and C.2.

- At the extreme ends of the FFSI-OC continuum, no place received a score of a 1 or 2, while three Orange County places received a 10 (the unincorporated communities of North Tustin, Modjeska, and Rossmoor) and three received a 9 (the unincorporated communities of Coto de Caza and Rancho Mission Viejo, and the city of Seal Beach) on the FFSI-OC for 2022.
- Several formerly lower scoring cities have now reached higher levels of stability, including Stanton (scoring 2 in 2012 compared to 6 in 2022) and Midway City (scoring 3 in 2012 and 7 in 2022). Santa Ana and Anaheim have also seen notable improvement, from 2 to 5 in Anaheim and 3 to 6 in Santa Ana.

Census results and scores on the individual indicators, as well as the composite FFSI-OC scores for individual places are provided in Figure C.3 below. The percentages in the table represent the proportion of families with children in each city with: incomes below 185% of poverty (Income), at least one adult in the family unemployed (Employment), and rent costs of 50% or more of income (Housing). Figure C.4 displays the FFSI-OC score trend for places.

**Figure C.1: FFSI-OC Distribution by Place, 2022 (Table)**

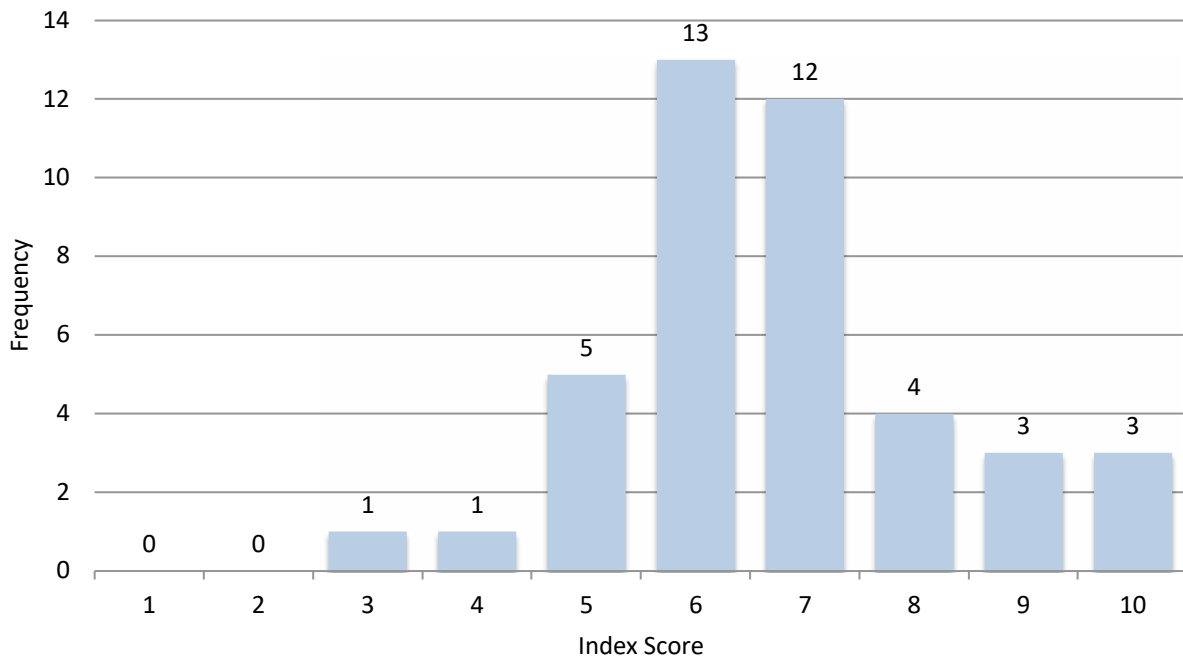
Family Financial Stability Index - Orange County (FFSI-OC) Score	Frequency (number of Orange County geographic places)	Percent	Cumulative Percent
1	0	0.0%	0.0%
2	0	0.0%	0.0%
3	1	2.4%	2.4%
4	1	2.4%	4.8%
5	5	11.9%	16.7%
6	13	31.0%	47.6%
7	12	28.6%	76.2%
8	4	9.5%	85.7%
9	3	7.1%	92.9%
10	3	7.1%	100.0%
Total	42	100.0%	

<sup>45</sup> Due to data suppression criteria from the U.S. Census Bureau, since 2015, FFSI-OC scores could not be calculated for Laguna Woods, which is a city for residents age 55 and over and has too few families with children to ensure confidentiality. Also due to data suppression criteria, in 2022, FFSI-OC scores cannot be calculated for two unincorporated areas: Williams Canyon and Trabuco Canyon. Consequently, only 42 place-level geographies have FFSI-OC scores for 2022.

<sup>46</sup> According to the U.S. Census, incorporated places are recognized legally according to laws of their respective states, and generally have active, functioning governments providing a variety of services for their residents. CDPs represent unincorporated communities that typically do not have a legally specified boundary and fall under the jurisdiction of the county.



**Figure C.2: FFSI-OC Distribution by Place, 2022 (Chart)**



Note: Data for this figure are derived from the U.S. Census Bureau, 2018-2022 American Community Survey 5-Year Estimates.

### Interpretation of Results at the Place Level

The FFSI has its greatest utility at the census tract level since it was crafted for this level of geographic analysis. Moreover, composite results at the place level may benefit from an examination of individual component results, particularly when results are unexpected. For example, in relatively high-income cities or places, high housing prices may drive composite index scores on the lower half of the distribution. In such cases, the income and employment data inputs can illuminate whether the place is indeed in distress, or if most families have high incomes and low unemployment, and thus can afford to devote a substantial portion of household income to rent. Other unique attributes of a city may impact results. For example, in Orange County, the city of Laguna Woods restricts the age of residents to 55 and over, therefore it is rare for residents to have children under 18 living with them and residents are less likely to be in the labor force. In 2015, the U.S. Census Bureau began suppressing data from Laguna Woods that it previously provided in the custom tabulation for the Housing component. Consequently, beginning in 2015, the FFSI-OC is not calculated for Laguna Woods. Thus, given the various nuances, the place-level results are provided primarily for comparative purposes and not necessarily to inform policy decisions.

**Figure C.3: FFSI-OC Results by Place, 2022 (Table)**

	Income	Employment	Housing	Income Indicator Score	Employment Indicator Score	Housing Indicator Score	Index Value
Aliso Viejo city	11.4%	4.8%	26.8%	2	2	2	7
Anaheim city	32.6%	4.7%	33.6%	1	2	1	5
Brea city	14.8%	4.6%	22.6%	2	2	2	7
Buena Park city	27.3%	3.9%	27.6%	1	3	2	7
Costa Mesa city	25.7%	5.0%	27.2%	1	2	2	6
Coto de Caza CDP	4.2%	2.4%	19.4%	3	3	2	9
Cypress city	14.0%	3.1%	23.4%	2	3	2	8
Dana Point city	12.7%	2.4%	28.4%	2	3	1	7
Fountain Valley city	11.4%	4.1%	25.9%	2	2	2	7
Fullerton city	26.1%	5.6%	29.1%	1	2	1	5
Garden Grove city	31.0%	6.3%	31.0%	1	2	1	5
Huntington Beach city	15.9%	5.0%	25.5%	2	2	2	7
Irvine city	14.4%	6.3%	24.6%	2	2	2	7
Ladera Ranch CDP	5.8%	3.0%	35.4%	3	3	1	8
Laguna Beach city	10.9%	4.6%	35.7%	2	2	1	6
Laguna Hills city	12.9%	11.0%	34.1%	2	1	1	5
Laguna Niguel city	15.1%	2.7%	27.7%	2	3	2	8
Laguna Woods city*	0.0%			3			
La Habra city	27.2%	4.5%	25.5%	1	2	2	6
Lake Forest city	15.6%	5.2%	26.9%	2	2	2	7
La Palma city	16.9%	1.9%	34.5%	2	3	1	7
Las Flores CDP	13.3%	7.2%	31.3%	2	2	1	6
Los Alamitos city	30.3%	9.9%	35.1%	1	1	1	4
Midway City CDP	43.1%	3.5%	5.7%	0	3	3	7
Mission Viejo city	12.7%	4.8%	31.6%	2	2	1	6
Modjeska CDP	5.6%	0.0%	0.0%	3	3	3	10
Newport Beach city	10.3%	2.1%	26.6%	2	3	2	8
North Tustin CDP	6.6%	2.0%	14.5%	3	3	3	10
Orange city	20.4%	4.0%	32.2%	1	3	1	6
Placentia city	18.3%	8.0%	31.2%	2	2	1	6
Rancho Mission Viejo CDP	3.5%	2.5%	19.2%	3	3	2	9
Rancho Santa Margarita city	10.6%	4.1%	29.8%	2	2	1	6
Rossmoor CDP	7.4%	1.5%	3.6%	3	3	3	10
San Clemente city	8.6%	7.3%	30.1%	3	2	1	7
San Juan Capistrano city	22.3%	2.8%	27.6%	1	3	2	7
Santa Ana city	38.2%	4.4%	26.8%	1	2	2	6
Seal Beach city	7.2%	3.9%	22.4%	3	3	2	9
Silverado CDP	37.7%	9.4%	80.0%	1	1	0	3
Stanton city	32.1%	4.7%	27.7%	1	2	2	6
Trabuco Canyon CDP*	13.3%	20.0%		2	0		
Tustin city	22.5%	6.4%	28.0%	1	2	2	6
Villa Park city	11.3%	1.1%	70.0%	2	3	0	6
Westminster city	33.3%	6.0%	39.2%	1	2	1	5
Williams Canyon CDP*		0.0%			3		
Yorba Linda city	12.6%	4.6%	35.4%	2	2	1	6

\*Insufficient data to calculate values.

**Figure C.4: FFSI-OC Results by Place, 2012-2022 (Table)**

Geography	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2012-2022 Change
Aliso Viejo city	7	7	7	7	8	7	8	8	7	7	7	0
Anaheim city	2	2	3	3	4	4	5	5	5	5	5	3
Brea city	6	6	7	7	8	7	7	7	8	7	7	1
Buena Park city	6	5	5	5	5	5	6	5	6	7	7	1
Costa Mesa city	4	4	4	5	5	6	6	6	6	5	6	2
Coto de Caza CDP	6	6	7	7	7	7	8	10	10	9	9	3
Cypress city	5	7	7	6	7	7	7	7	7	8	8	3
Dana Point city	7	7	6	6	5	5	6	6	7	8	7	0
Fountain Valley city	5	4	6	6	6	6	7	7	6	6	7	2
Fullerton city	4	4	5	5	5	5	5	6	5	5	5	1
Garden Grove city	4	4	4	4	5	5	5	5	6	5	5	1
Huntington Beach city	6	6	5	5	5	5	7	8	7	7	7	1
Irvine city	7	7	7	7	7	7	6	7	7	7	7	0
Ladera Ranch CDP	8	9	8	9	9	7	8	7	7	8	8	0
Laguna Beach city	6	8	7	7	7	9	8	7	6	8	6	0
Laguna Hills city	7	7	7	7	6	6	6	6	6	4	5	-2
Laguna Niguel city	7	7	7	7	7	7	6	7	7	7	8	1
Laguna Woods city*	7	7	8									
La Habra city	4	3	3	3	4	4	6	6	6	6	6	2
Lake Forest city	7	7	7	6	6	6	6	7	6	7	7	0
La Palma city	6	6	7	6	6	8	7	7	7	7	7	1
Las Flores CDP	8	9	9	10	10	10	10	8	7	6	6	-2
Los Alamitos city	6	6	6	5	6	7	7	7	4	4	4	-2
Midway City CDP	3	3	3	2	2	3	4	4	5	7	7	4
Mission Viejo city	7	7	7	7	8	8	9	8	7	7	6	-1
Modjeska CDP										9	10	
Newport Beach city	8	7	8	8	8	8	8	8	8	8	8	0
North Tustin CDP	9	9	9	10	10	10	10	10	9	10	10	1
Orange city	6	5	4	5	5	5	5	6	6	6	6	0
Placentia city	5	5	5	6	6	6	6	6	7	5	6	1
Rancho Mission Viejo CDP										9	9	
Rancho Santa Margarita city	8	7	7	6	6	7	8	9	9	7	6	-2
Rossmoor CDP	6	6	7	8	7	7	8	9	9	9	10	4
San Clemente city	6	6	4	6	6	6	7	7	6	7	7	1
San Juan Capistrano city	4	4	4	3	4	6	5	6	6	7	7	3
Santa Ana city	3	3	3	4	4	4	4	4	4	4	6	3
Seal Beach city	10	8	8	8	9	8	8	8	8	9	9	-1
Silverado CDP										5	3	
Stanton city	2	2	1	3	4	4	4	4	6	5	6	4
Trabuco Canyon CDP*												
Tustin city	5	5	4	5	5	5	6	7	6	6	6	1
Villa Park city*	8	6	8	9	9	9	10			6	6	-2
Westminster city	3	3	2	4	4	4	6	5	4	4	5	2
Williams Canyon CDP*												
Yorba Linda city	7	8	8	7	6	7	8	7	7	6	6	-1

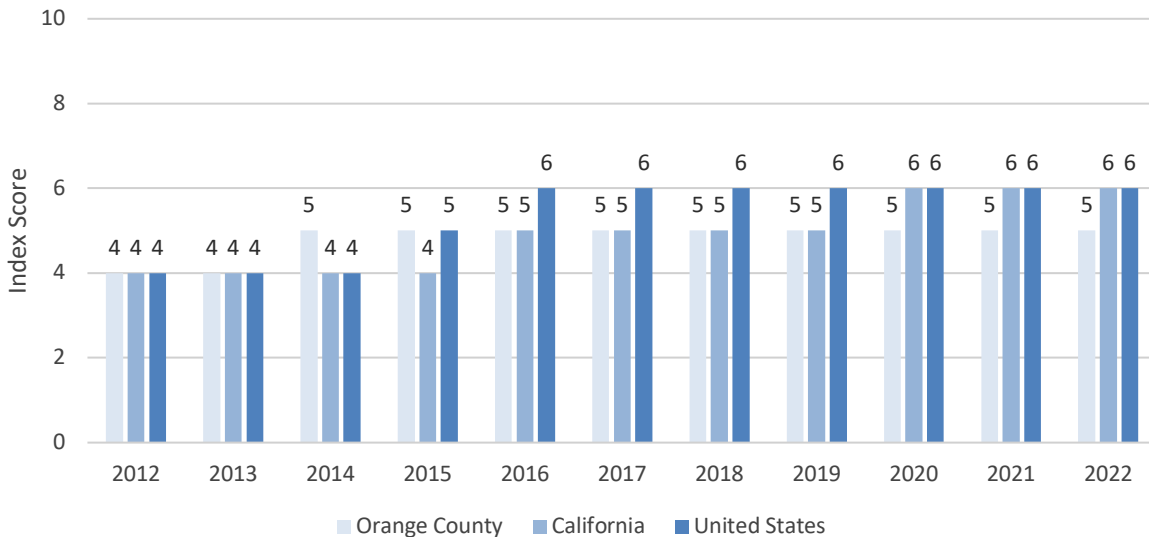
\*Insufficient data to calculate values.

## Appendix D: County, State, and National FFSI-OC Findings

Taken as a whole, Orange County received a score of 5 on the FFSI-OC for 2022. California and the United States both received a 6.<sup>47</sup> As shown in Figure D.1, the county, state, and national rates have improved since 2012. Orange County has received a score of 5 since 2014, improving from a score of 4 in 2012 and 2013. In 2022, California received a 6 for the third year in a row. Previously, California received a 5 between 2016 and 2019 and a 4 between 2012 and 2015. The United States score has been at 6 since 2016, an increase from a score of 5 in 2015 and a score of 4 in the years prior to that.

As shown in Figure D.2, Orange County's score improved in 2014 owing to an improvement in the employment score. Employment refers to the percentage of families with children under 18 with one or more unemployed adults looking for work, which applied to 4.9 percent of Orange County families in 2022. The U.S. score surpassed the Orange County score in 2016 due to improvement in the housing score, indicating that fewer families nationwide are spending 50 percent or more of their income on rent. As of 2020, the California score also surpassed the Orange County score due to improvement in the housing score. The income score, which reflects the percentage of families with children under 18 with household income under 185 percent of the poverty level, has not changed for the county, state, or nation since 2012.

**Figure D.1: FFSI-OC Results by County, State, and Nation, 2012-2022 (Chart)**



Note: Data for this figure are derived from the U.S. Census Bureau, 2008-2012 through 2018-2022 American Community Survey 5-Year Estimates.

<sup>47</sup> The composite index formula sums each component indicator score and adds one to arrive at a 1-10 scale. See Methodology section for additional detail.

**Figure D.2: FFSI-OC Results by County, State, and Nation, 2012-2022 (Tables)**

2022							
	Housing	Housing Score	Income	Income Score	Employment	Employment Score	FFSI-OC Score
Orange County	28.7%	1	22.0%	1	4.9%	2	5
California	27.7%	2	28.0%	1	5.6%	2	6
United States	25.4%	2	29.5%	1	4.6%	2	6

2021							
	Housing	Housing Score	Income	Income Score	Employment	Employment Score	FFSI-OC Score
Orange County	29.3%	1	22.6%	1	5.0%	2	5
California	27.7%	2	28.8%	1	5.7%	2	6
United States	25.1%	2	30.0%	1	4.8%	2	6

2020							
	Housing	Housing Score	Income	Income Score	Employment	Employment Score	FFSI-OC Score
Orange County	29.7%	1	23.5%	1	4.7%	2	5
California	27.7%	2	29.8%	1	5.3%	2	6
United States	24.9%	2	30.8%	1	4.6%	2	6

2019							
	Housing	Housing Score	Income	Income Score	Employment	Employment Score	FFSI-OC Score
Orange County	29.8%	1	25.0%	1	4.1%	2	5
California	28.2%	1	31.7%	1	5.2%	2	5
United States	25.3%	2	32.1%	1	4.5%	2	6

2018							
	Housing	Housing Score	Income	Income Score	Employment	Employment Score	FFSI-OC Score
Orange County	30.4%	1	26.4%	1	4.6%	2	5
California	29.0%	1	33.4%	1	5.8%	2	5
United States	26.2%	2	33.3%	1	5.0%	2	6

2017							
	Housing	Housing Score	Income	Income Score	Employment	Employment Score	FFSI-OC Score
Orange County	31.0%	1	27.7%	1	5.0%	2	5
California	29.8%	1	34.9%	1	6.7%	2	5
United States	26.8%	2	34.3%	1	5.7%	2	6

2016							
	Housing	Housing Score	Income	Income Score	Employment	Employment Score	FFSI-OC Score
Orange County	31.3%	1	28.5%	1	5.8%	2	5
California	30.6%	1	36.3%	1	7.7%	2	5
United States	27.5%	2	35.2%	1	6.4%	2	6

2015							
	Housing	Housing Score	Income	Income Score	Employment	Employment Score	FFSI-OC Score
Orange County	31.8%	1	29.3%	1	6.7%	2	5
California	31.3%	1	37.2%	1	8.9%	1	4
United States	28.4%	1	35.8%	1	7.3%	2	5

2014							
	Housing	Housing Score	Income	Income Score	Employment	Employment Score	FFSI-OC Score
Orange County	32.3%	1	29.5%	1	7.9%	2	5
California	31.8%	1	37.4%	1	10.1%	1	4
United States	29.1%	1	36.0%	1	8.3%	1	4

2013							
	Housing	Housing Score	Income	Income Score	Employment	Employment Score	FFSI-OC Score
Orange County	31.3%	1	29.0%	1	8.6%	1	4
California	31.8%	1	36.8%	1	10.8%	1	4
United States	29.4%	1	35.6%	1	8.9%	1	4

2012							
	Housing	Housing Score	Income	Income Score	Employment	Employment Score	FFSI-OC Score
Orange County	30.5%	1	27.8%	1	8.7%	1	4
California	31.5%	1	35.8%	1	10.4%	1	4
US	29.3%	1	34.8%	1	8.6%	1	4

Note: Data for this figure are derived from the U.S. Census Bureau, 2008-2012 through 2018-2022 American Community Survey 5-Year Estimates.

### Interpretation of Results at the County, State and National Level

The FFSI-OC was created for use at the census tract level, with baseline 2012 census tract results driving the cut points used in subsequent years. At the level of counties, states, and the nation, the thresholds are less sensitive and results tend to average out, limiting variability. Like the interpretation of the results at the place level, the county, state, and national FFSI-OC results may be useful for comparative purposes but do not provide enough specificity to inform policy decisions.

## **Appendix E: Summary Presentation**

Annually, a summary presentation of the FFSI-OC is released in the Orange County Community Indicators Report. Appendix E provides the summary presentation for the 2021 FFSI-OC, which was the latest vintage available at the time of publication of the 2023-2024 Orange County Community Indicators Report. The report can be accessed at: <https://www.unitedwayoc.org/wp-content/uploads/2023/11/2023-OC-Community-Indicators-Report.pdf>

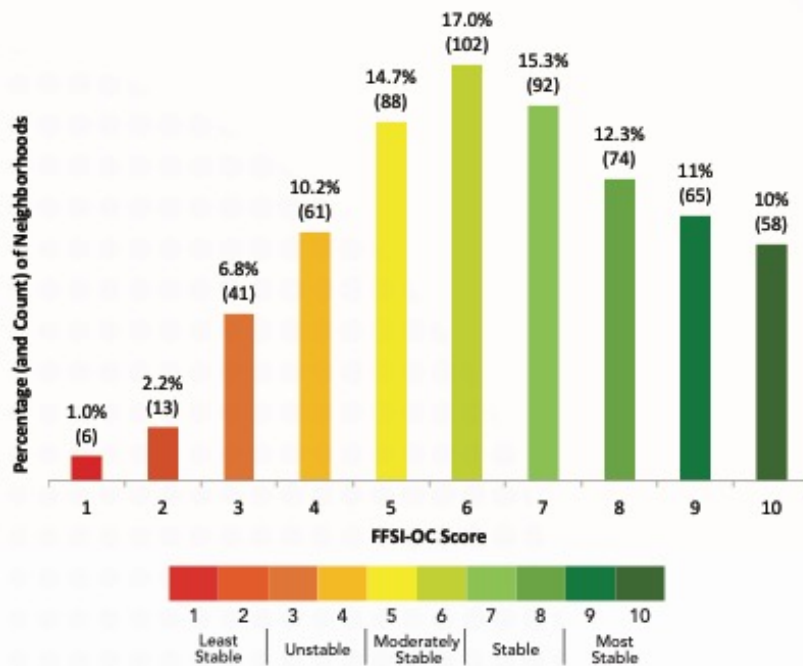


# FAMILY FINANCIAL STABILITY

The 2021 Family Financial Stability Index for Orange County (FFSI-OC) shows that 20 percent of neighborhoods had high levels of family financial instability (scores of 1 to 4 out of a maximum score of 10, where 1 is the least stable and 10 is the most stable). The FFSI-OC measures the financial stability of families with children under 18 by Orange County neighborhood and is a composite of three metrics: family income, employment status, and the proportion of household income spent on rent.

## MAJORITY OF NEIGHBORHOODS MODERATELY STABLE OR STABLE

FIGURE 1: FFSI-OC SCORES, PERCENT (AND COUNT) OF ORANGE COUNTY NEIGHBORHOODS, 2021



Source: Parsons Consulting, Inc. for Orange County United Way

### NOTE

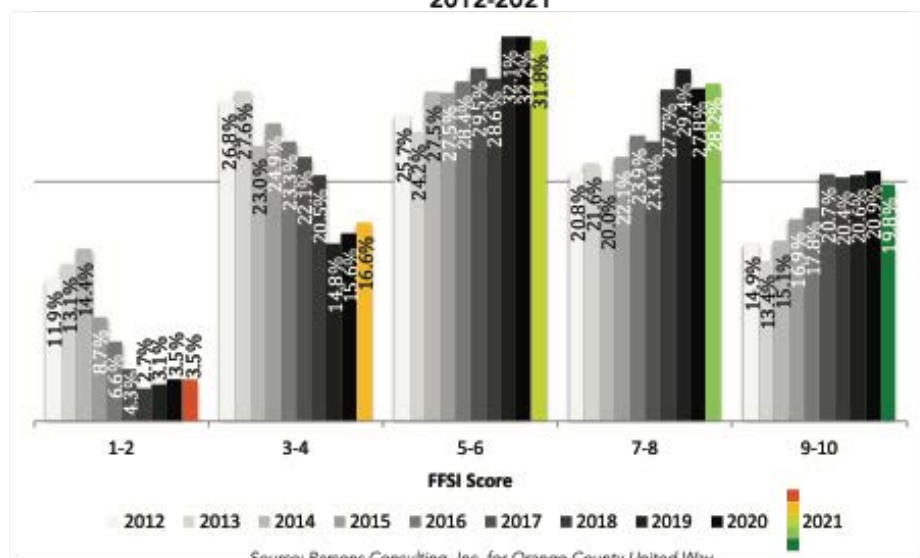
Data displayed in Figure 1 are based on 2020 census tract boundaries. Percentages have been rounded. The number of neighborhoods falling within each FFSI-OC index score is provided in the parentheses following the percentage.

FFSI-OC tracking began in 2012, when 39 percent of neighborhoods received “unstable” FFSI-OC scores of 4 or less. While instability rose to include 41 percent of neighborhoods in 2013, family financial stability steadily improved each year between 2013 through 2019, when only 18 percent of neighborhoods had comparable levels of family financial instability.

COVID-19, however, interrupted these positive trends. Instability rose to 19 percent in 2020 and 20 percent in 2021. While the 2020 results ended a steadily improving trend, the percentage of neighborhoods with FFSI scores of 4 or less remains low compared to historical FFSI-OC results.

### FAMILY FINANCIAL STABILITY DECLINES AGAIN IN 2021

**FIGURE 2: PERCENTAGE OF ORANGE COUNTY NEIGHBORHOODS BY FFSI-OC SCORE, 2012-2021**



**NOTE**

Data displayed in Figure 2 are based on 2010 census tract boundaries.

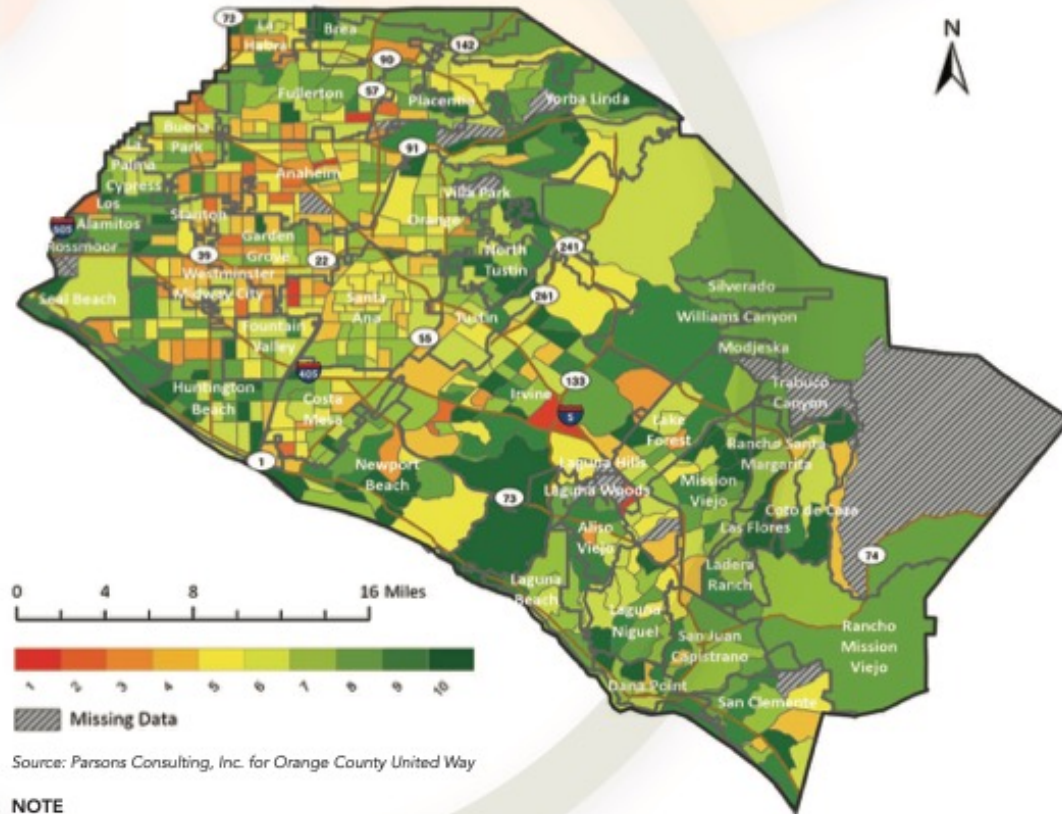
Data for the FFSI are derived from the U.S. Census Bureau American Community Survey 5-Year Estimates. The 2021 results are estimates based on samples of the Orange County population surveyed between 2017 and 2021. As with all sample data, results have a margin of error where the true result is assumed to be within the margin of error.

For the 2020 Census, the U.S. Census Bureau revised census tract boundaries, creating a net of 30 additional tracts as population increases necessitated the splitting of certain tracts. The single year displays of FFSI results (Figures 1 and 3) are based on the analysis of data using the 2020 census tract boundaries; however, to enable ongoing trend analysis, trend displays (Figures 2 and 4) are based on recombining data into 2010 census tract boundaries.

Pockets with the highest levels of instability (scores of 1 or 2) can be found in Fullerton, Santa Ana, Irvine, Laguna Hills, Placentia, Costa Mesa, Anaheim, Stanton, Garden Grove, Westminster, Los Alamitos, Tustin, and Buena Park.

**20 PERCENT OF NEIGHBORHOODS HAVE HIGH LEVELS OF FAMILY FINANCIAL INSTABILITY**

**FIGURE 3: FAMILY FINANCIAL STABILITY INDEX – ORANGE COUNTY, 2021 NEIGHBORHOOD-LEVEL RESULTS**



Source: Parsons Consulting, Inc. for Orange County United Way

**NOTE**

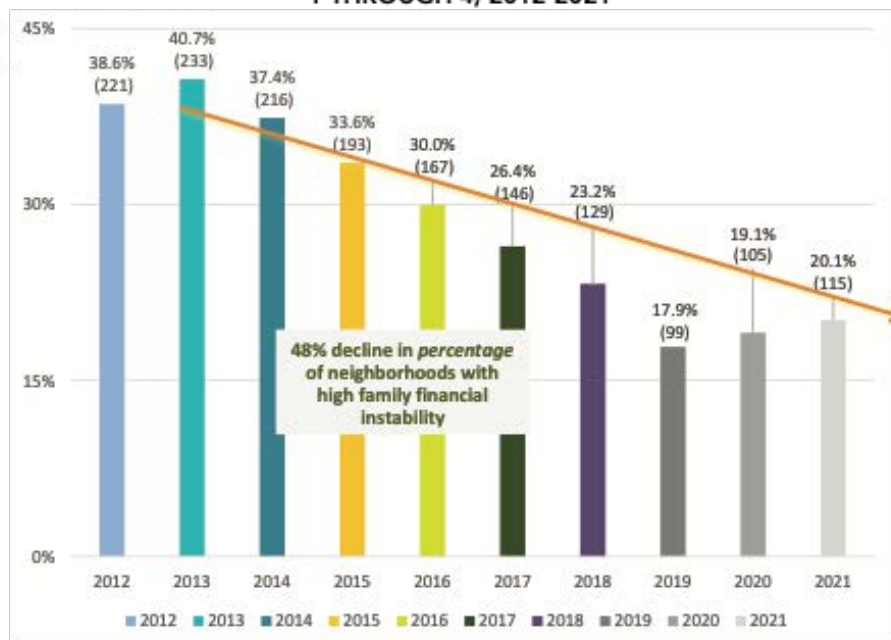
Data displayed in Figure 3 are based on 2020 boundaries.

Red or dark orange areas on the map represent neighborhoods with low levels of family financial stability. Families with children in these neighborhoods are more likely to have a low income (less than 185 percent of the poverty level), spend 50 percent or more of household income on rent, and/or have one or more unemployed adults seeking employment. Green areas, on the other hand, have a higher proportion of families that are financially stable. Gray hatch marked areas represent neighborhoods with no data available due to small numbers of families with children in those neighborhoods and thus data has been suppressed to protect privacy.

The FFSI-OC is used as a proxy to track Orange County United Way's progress toward their Fund Advocate Collaborate Educate (FACE) 2024 goal: "reduce the percentage of financially unstable families by 25 percent."<sup>24</sup> For this purpose, "financially unstable" is defined at the neighborhood level as an FFSI-OC score of 4 or lower for a census tract. There has been a 48 percent improvement between 2012 and 2021 in the percentage of neighborhoods scoring as financially unstable.<sup>25</sup>

**DESPITE RECENT INCREASES IN FAMILY FINANCIAL INSTABILITY, OCUW IS STILL ON TRACK TO ACHIEVE THE FACE 2024 GOAL**

**FIGURE 4: PROGRESS TOWARD ORANGE COUNTY UNITED WAY FACE 2024 GOAL; CHANGE IN PERCENTAGE OF NEIGHBORHOODS WITH FFSI-OC SCORES OF 1 THROUGH 4, 2012-2021**



Source: Parsons Consulting, Inc. for Orange County United Way

**NOTE**

Data displayed in Figure 4 are based on 2010 census tract boundaries. Numbers of census tracts with FFSI-OC scores of 4 or less are displayed in parentheses. The total number of census tracts included in the analysis changes from year-to-year due to variation in Census Bureau data suppression to protect confidentiality in tracts with small numbers of households.

<sup>24</sup> The OCUW FACE 2024 goal aims to reduce the percentage of financially unstable families, while the FFSI-OC measures the percentage of neighborhoods that have high (or low) concentrations of families experiencing financial instability. The FFSI-OC does not provide a family count, so it cannot provide a precise calculation of change in the number of families that are financially unstable. However, the change in count and percentage of neighborhoods experiencing family financial instability acts as a proxy for a family count.

<sup>25</sup> Due to the variable number of census tracts with data in each year, and because the overall number of census tracts has declined over time due to data suppression on the part of the U.S. Census Bureau to protect privacy, change is calculated on the percentage of neighborhoods scoring 1-4 instead of the on the count of neighborhoods scoring 1-4.

## **Appendix F: FFSI-OC Results and Change Analysis by Census Tract**

Provided in electronic Excel format.

## **Appendix G: 2010 U.S. Census Bureau Census Tract Reference Maps**

Map provided as a PDF or can be accessed at the following link:

<https://www.census.gov/geographies/reference-maps/2010/geo/2010-census-tract-maps.html>

## **Appendix H: 2020 U.S. Census Bureau Census Tract Reference Maps**

Map provided as a PDF or can be accessed at the following link:

<https://www.census.gov/geographies/reference-maps/2020/geo/2020pl-maps/2020-census-tract.html>