

Introduction

The Great Recession was a period of economic contraction that began in December 2007 and ended in June 2009 (NBER). Prevailing narratives lay blame on an industry-wide breakdown of mortgage lending and securitization practices (Adelson, 2020) which enabled a speculative bubble in U.S. residential real estate contributing to record levels of household debt and over-valuation of capital assets. As individual borrowers modified and/or defaulted on loans, mortgage-backed securities realized losses – exposing their overvaluation and the risky loans they contained. An equivalent of bank run on investment banks facilitated significant losses and bankruptcy for many well established and large banks, both commercial and investment.

The fallout of this systemic collapse led to a peak of 9.9% unemployment in November 2009 that slowly meandered downward over the next 7 years, finally matching the pre-recession levels in late 2016 (FRED). Some economic and political pundits cite The Great Recession and its handling as an important contributor to political unrest – particularly lifting populist sentiments such as those espoused by Bernie Sanders or the election of Donald Trump (Schnurer). This project looks at the shape of the recession across four states: California, Florida, North Carolina, and Massachusetts. It identifies potential discrepancies with the sub-prime narrative, considers the possibility of novel lead indicators, evaluates the impact on education and entrepreneurship, investigates the socio-economic structures of the post-recession era, and offers a hopeful consideration around the influence of education.

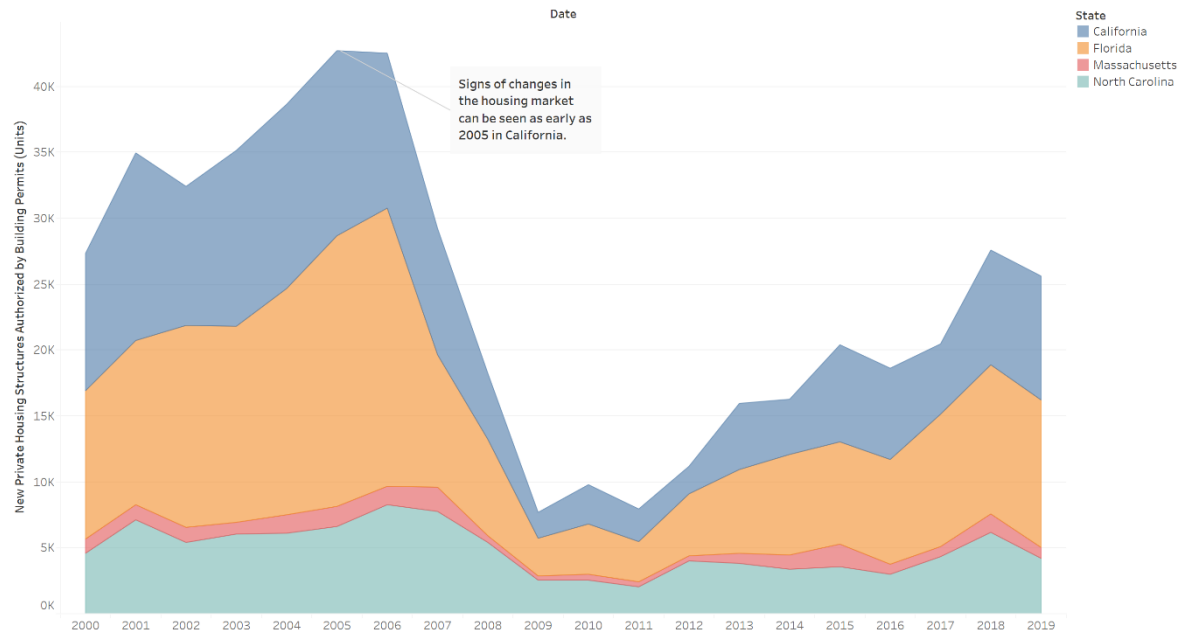
Methodology

Data was retrieved through [GEOFRED](#) which is hosted by the Federal Reserve Bank of St. Louis and visualized using Tableau to create several dashboards and one story. The following data sources were used:

Data	Seasonally Adjusted
90% Confidence Interval Lower Bound Estimate of Median Household Income	No
Accommodations and Food Service Earnings by State (Thousands of Dollars)	Yes
All Employees: Leisure and Hospitality: Food Services and Drinking Places	No
High School Graduate or Higher	No
Bachelor's Degree or Higher	No
People 25 Years and Over Who Have Completed a Graduate or Professional Degree	No
Home Vacancy Rates	No
Home Ownership Rates	No
New Private Housing Units Authorized by Building Permits	No
Business Applications	No
Business Formations (Within 4 Quarters)	No

Overview:

New Private Housing Contracts

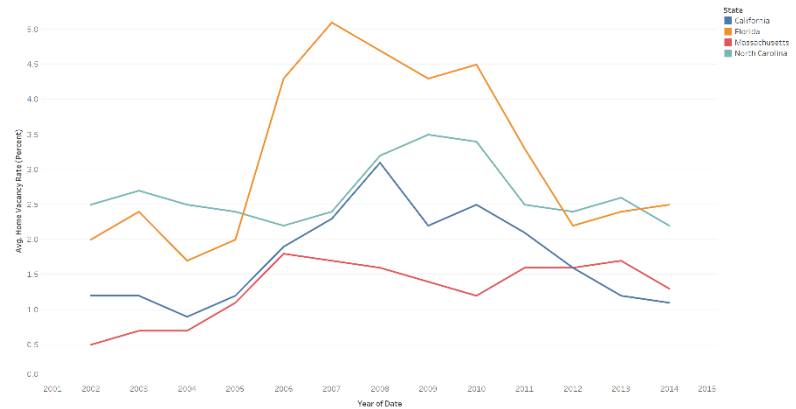


Sum of New Private Housing Structures Authorized by Building Permits (Units) for each Date Year. Color shows details about State. The view is filtered on Date Year and State. The Date Year filter keeps multiple members. The State filter keeps California, Florida, Massachusetts and North Carolina.

Signs of changes in the housing market were as early as 2005 in California, while North Carolina and Massachusetts saw a delayed collapse.

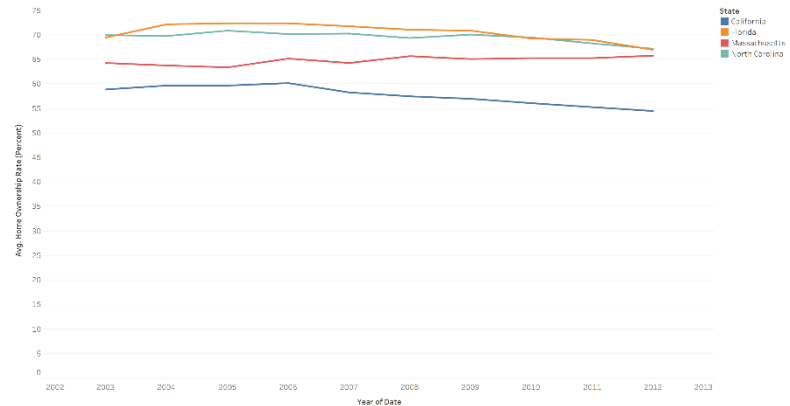
Discrepancies between the fluctuation in home ownership rates and home vacancy rates support the idea that the economic bubble and collapse were primarily caused by investors, suggesting better regulation may prevent future crises.

Home Vacancy Rates

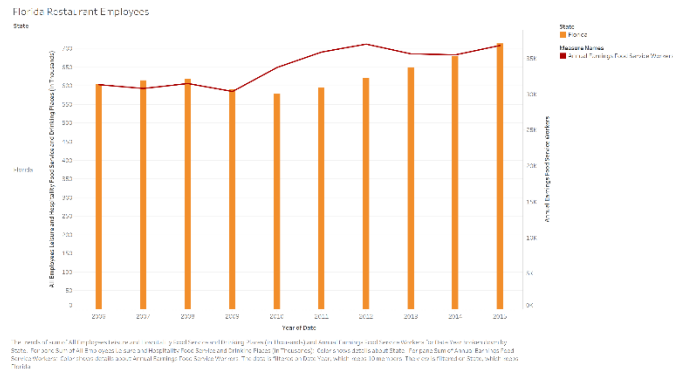


The trend of average of Home Vacancy Rate (Percent) for Date Year. Color shows details about State. The data is filtered on Date (BY), which has multiple members selected. The view is filtered on State, which keeps California, Florida, Massachusetts and North Carolina.

Home Ownership Rates



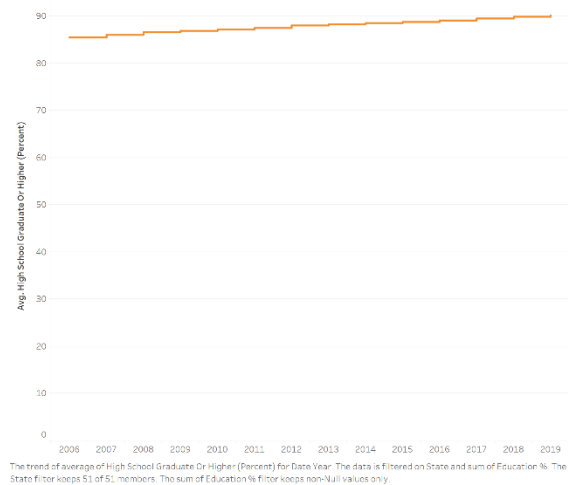
The trend of average of Home Ownership Rate (Percent) for Date Year. Color shows details about State. The data is filtered on Date (BY), which keeps 10 members. The view is filtered on State, which keeps California, Florida, Massachusetts and North Carolina.



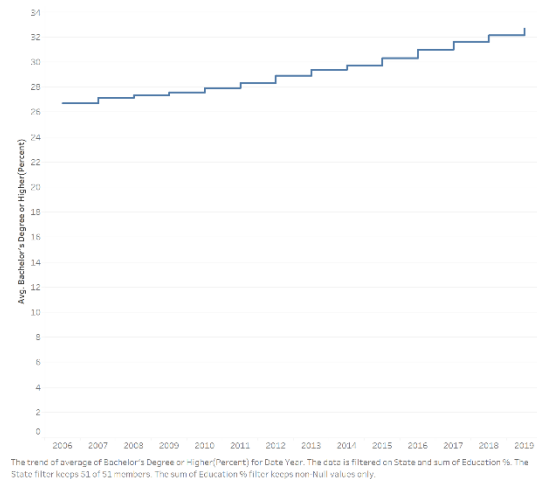
The sharp change in earnings for food service workers in 2009 might support writer, Hugo Lindgren of New York Magazine's, *Hot Waitress Index*. Further research is necessary to validate these claims; however, if tall, thin, and white are the definition of attractiveness, this research would fall flat by not considering the socio-economic implications of this index and the depicted change in earnings.

Promisingly, high school graduate rates, did not falter during the economic downturn. Unfortunately, there was also no evidence to support a sharp rise in the pursuit of higher education such as bachelor's degrees.

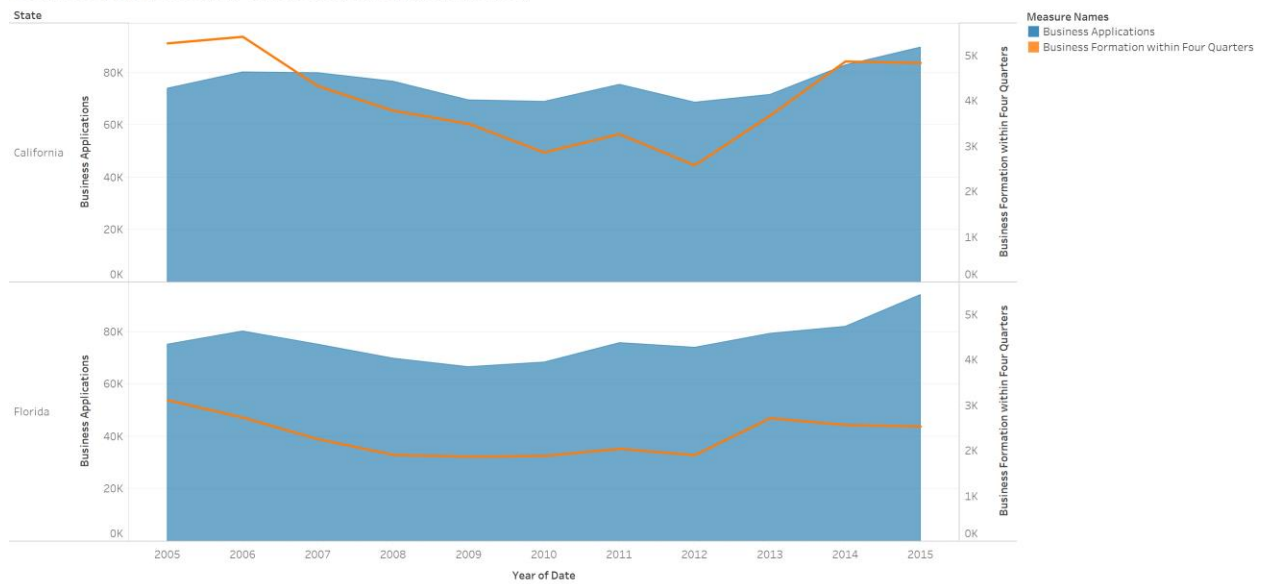
High School Graduation Rates



Bachelor's Degree



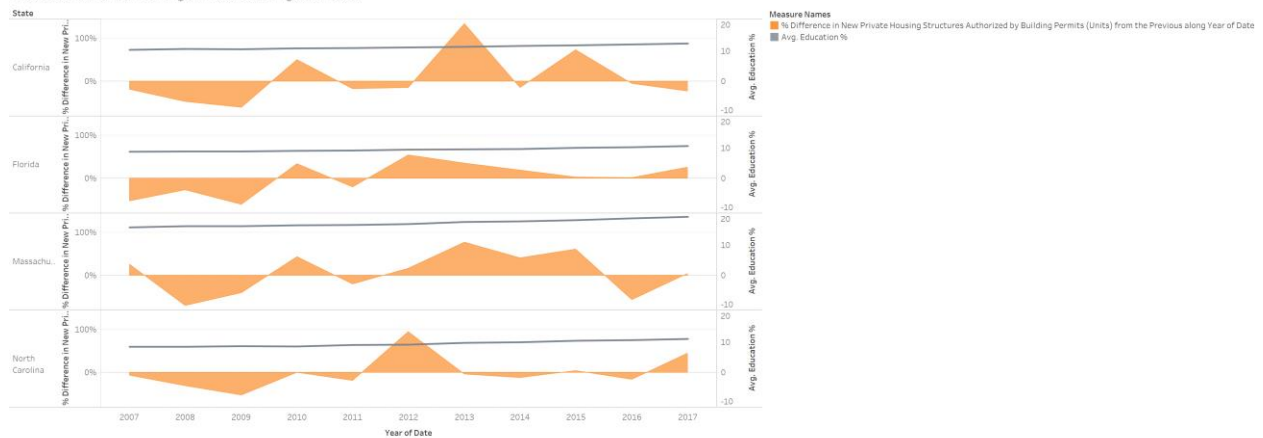
Business Applications and Formations (California and Florida)



The trends of Business Applications and Business Formation within Four Quarters for Date Year broken down by State. Color shows details about Business Applications and Business Formation within Four Quarters. The data is filtered on Date Year, which keeps 11 members. The view is filtered on State and sum of Business Formation within Four Quarters. The State filter keeps California and Florida. The sum of Business Formation within Four Quarters filter keeps non-Null values only.

The number of new businesses started during the Great Recession dramatically decreased. While applications have returned to pre-Recession numbers, formation continues to remain low.

Education vs Percent Change in New Building Contracts



The trends of % Difference in New Private Housing Structures Authorized by Building Permits (Units) from the Previous along Year of Date and Avg. Education % for Date Year broken down by State. Color shows details about % Difference in New Private Housing Structures Authorized by Building Permits (Units) from the Previous along Year of Date and Avg. Education %. The data is filtered on Date Year, State (Extract9), Education Level and Difference in New Private Housing Structures Authorized by Building Permits (Units). The Date Year filter keeps 14 members. The State (Extract9) filter keeps Null, California, Florida, Massachusetts and North Carolina. The Education Level filter keeps People 25 and Older Who Have Completed a Graduate or Professional Degree (Percent). The Difference in New Private Housing Structures Authorized by Building Permits (Units) filter keeps non-Null values only.

The Shape of the recovery varied across different states, notably, Massachusetts had the highest percentage of people over 25 with a graduate or professional degree and had a relatively stable recovery. Supporting individual's efforts to achieve higher levels of education may help mitigate the impacts of future economic contractions. Further research is necessary.

References:

- Adelson, M. (2020). The mortgage meltdown and the failure of investor protection. *The Journal of Structured Finance*, 26(1), 63-86. doi:10.3905/jsf.2020.1.095
- NBER. (n.d.). US business Cycle expansions and contractions. Retrieved March 02, 2021, from <https://www.nber.org/research/data/us-business-cycle-expansions-and-contractions>
- Schnurer, E. (n.d.). Politics are not recession-proof. Retrieved March 02, 2021, from <https://www.usnews.com/opinion/articles/2016-06-02/the-great-recession-wrought-donald-trumps-rise>
- U.S. Bureau of Labor Statistics, Unemployment Rate [UNRATE], retrieved from FRED, Federal Reserve Bank of St. Louis; <https://fred.stlouisfed.org/series/UNRATE>, March 2, 2021