The International Conference on Interdisciplinary Humanities and Communication Studies
DOI: 10.54254/2753-7064/4/20220443

# *Mental Well-Being of Americans among Different Social Classes through the Great Recession: A Chronological Analysis of Economic and Political Events*

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***Abstract:*** While the economic consequences of the Great Recession are well-studied, the change in the emotions and mood of people from the event has been largely overlooked. Positive mental status, or happiness, is an essential factor beyond economic data to analyze the authentic prosperity of a country. This paper examines this aspect of the effect of the Financial Crisis of 2008. This paper gathered subjective surveys on personal feelings and objective economic data trends from credible databases to infer the individuals' mental status. Moreover, by connecting the change in those time trends to dates of specific governmental acts and programs and social-political events during the recession, this paper observes the nuance in changes in American individual mental well-being and the effects of political and social incidents. Since the condition of each social class differed, the extent of the harmful shock each experienced varied. According to the results, the upper class had the most severe damage yet the fastest recovery in terms of mental status from the recession. Furthermore, the government programs and acts vary in effectiveness: some mitigated the economic shocks but did not provide mental relief, and others vice versa. The impacts of such policies further differed among social classes. This paper provides conclusions that can help scholars better understand the full consequences of the US Great Recession on the lives of Americans and provide implications of effective governmental means to improve public mental well-being.

***Keywords:*** Mental Well-being, Great Recession, Social hierarchy, Government Policies

## 1. Introduction

The Great Recession was a global financial crisis which lasted officially from December 2007 to June 2009 for the US. According to data from the National Bureau of Economic Research, from 1945 to 2009, the average length of a financial recession was 11 months [1]. However, the Great Recession, lasted for 18 months–the most significant financial crisis since the Great Depression. In the context of the booming housing industry that began at the start of the 21st century, banks and investors discovered that lending mortgages to people were a very efficient way to earn money. The lender would take the house if borrowers could not pay the mortgage. The rising price of houses could not make these lenders lose money in any circumstances. The creation of subprime mortgages, which allowed lending money to less credited and lower-income people with different high-interest rates, broke this harmony, eventually causing the Great Recession. A large number of subprime mortgage

DOI: 10.54254/2753-7064/4/20220443

debtors were unable to pay the loans. When the banks received all those houses, the housing market supply increased dramatically, lowering the prices and the real estate bubble bursting. The financial crisis had a negative impact globally: it caused massive unemployment, loss of homes, and bankruptcy of large banks.

It is well-established that the recession created many external economic disruptions, but how did such a harmful financial shock damage individual happiness? Aristotle once said, "Happiness is the meaning and the purpose of life, the whole aim and end of human existence." Indeed, becoming happy, or having positive mental well-being, can be considered the ultimate goal of every individual. All other goals in life, whether making money, socializing, leaving legacies, or accomplishing honour, are subordinate to happiness since these goals contribute to increasing happiness. Therefore, this question is essential to study, as it discovers the most intrinsic impact of the Great Recession on people.

To answer this question, this paper gathered data on both objective economic data and subjective attitudes, explicitly focusing on the decade between 2005-2015 to speculate on the variation in the mental well-being of Americans before, during, and after the Great Recession. Since individual investments in the housing industry or stock market varied by class, the panic had generally affected each social class group to different extents. Thus, this paper uses four social classes, lower, working, middle, and upper, to analyze the mental impact of the crisis by class.

I hypothesize that although all Americans would have shown a decline in happiness, the recession has impacted the extreme ends of the class spectrum most. As poorer people lost their homes and wealthy people lost their investments, the middle class, who did not have the excess wealth to make loans and housing more secure, is expected to be less affected. In addition, the recession is expected to have a prolonged impact that cannot be restored in the short term.

Moreover, the Great Recession has many parallels with the Great Depression. During the Great Depression, President Franklin D. Roosevelt formed two New Deals creating dozens of acts and programs to recover the economy. Interestingly, although FDR failed in ending the Great Depression with his New Deal, the New Deal made him one of the most popular presidents in American history, earning him a sweeping victory and allowing him to be elected four times in total. So why did people like him so much even though he was not that effective? Programs in the New Deal did have an impact on improving Americans' happiness and mental well-being. Inspired by this idea, this research aims to understand better the mental effects of the {New Deal" on the Great Recession.

This paper examines several representational US Government interferential actions in response to the Great Recession, such as the Troubled Asset Relief Program (TARP), the American Recovery and Reinvestment Act (ARRA), and Wall Street Reform and Consumer Protection Act, also known as the Dodd Frank Act. The research not only investigates whether these were effective in recovering the national economy but also if they provided relief in terms of America's mental struggles. Other than those policies and acts, this paper tries to determine whether significant events during the Great Recession, including the transition of the presidency and the Occupy Wall Street movement, influenced Americans' emotions and attitudes.

This paper finds that the general American's well-being declined because of the Great Recession for all classes. While the Troubled Asset Relief Program effectively improved the country's economy, it provided minimal help to people's happiness levels. The ARRA was quite the opposite, elevating happiness but not the economy. The Dodd-Frank Act was contradictory, as its reputation differed among social classes. President Obama's inauguration improved the general well-being initially, but his healthcare reform and later bailout attempts repealed this increase. The Occupy Wall Street movement further demonstrated the unstable nature of the US social fabric in the early 2010s, reflecting the prolonged impact of the Great Recession.

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The structure of this paper is organized as follows. The second section describes methods, data, and results used to answer how mental well-being is affected by the recession. The third section discusses how the data is interpreted within every governmental policy and event context. The last section concludes with a summary of results and proposals for future research on this topic.

## 2. Methods

This paper analyzes trends in subjective and objective variables throughout 2005-2015 to create a picture of the great recession's impact on Americans' well-being. Subjective variables like happiness levels and attitudes can directly relate to mental well-being status. Objective variables related to the economy could serve as specific indicators for general mental well-being. Data are collected from the General Social Survey, the Federal Reserve Economic Data, the Federal Reserve, and the World Top Income Database. Time trends of the various variables allow us to identify patterns and gauge the impact of various government interventions and social and political events on Americans' economic and subjective mental well-being.

## 3. Data and Results

### 3.1. Data from General Social Survey

The General Social Survey (GSS) of the University of Chicago, which aims to study American society by collecting subjective self-reported data, is this paper's primary source of data collection. GSS provides many survey questions in this paper, including questions on happiness, life satisfaction, and attitudes toward different governmental agencies and responsibilities. Analyzing the changes in these variables that are associated with the mental well-being of respondents during the Great Recession can help clarify the impact of the crisis.

All graphs from the GSS have four separate trends, each classified by subjective American self-reported social classes: lower, working, middle and upper. The following pie chart, collected by GSS in 2008, gives contexts for all the latest trends from the GSS. By asking the question, "If you were asked to use one of four names for your social class, which would you say you belong in: the lower class, the working class, the middle class, or the upper class?", it shows what subjective class Americans consider themselves in. According to Figure 1, in 2008, 7.3% of Americans considered themselves as belonging to the lower class, 45.7% considered themselves part of the working class, 43.4% considered themselves part of the middle class, and only 3.6% considered themselves part of the upper class.

Figure 2 shows the results from the question, "Taken all together, how would you say things are these days--would you say that you are pleased, pretty happy, or not too happy?" Figure 2 plots the percentage of the population that responds “very happy” among different social classes.

General happiness is the most direct variable demonstrating the mental well-being of Americans during the Financial Crisis of 2008, as happiness levels could reflect a positive or negative mental status.

The general trend shown in Figure 2 is that the higher social class Americans believe they are in, the higher percentage of them believe they are "pleased." This can be explained by the fact that the higher social class typically has gained more respect, power, and access to superior resources than others [2]. Focusing on the decade of the Great Recession, 2005-2015, some variations in subjective general happiness are visible. The percentage of the population identifying as upper-class and feeling very happy dipped from over 45% in 2005 to below 30% in 2008. This indicates a potential correlation between their decrease in general happiness and the financial crisis. Figure 2 shows that the upper class was the one that was affected first and most by the crisis. Other social classes show different levels of lag in terms of the decline in their general happiness levels. The working and the middle

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classes had an almost synchronized decrease in happiness around 2010. The people who considered themselves the lower class did not have a decrease in general happiness until 2015.

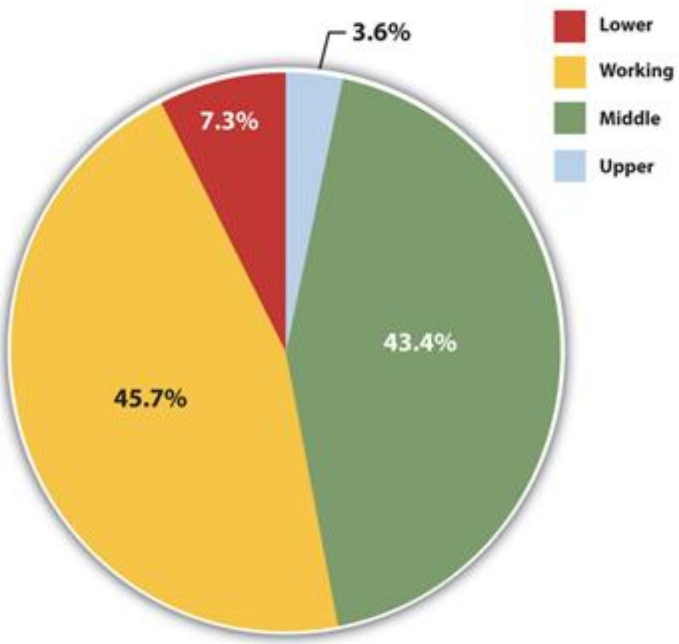


Figure1： Composition of the different classes in the US society Source: General Social Survey, 2009

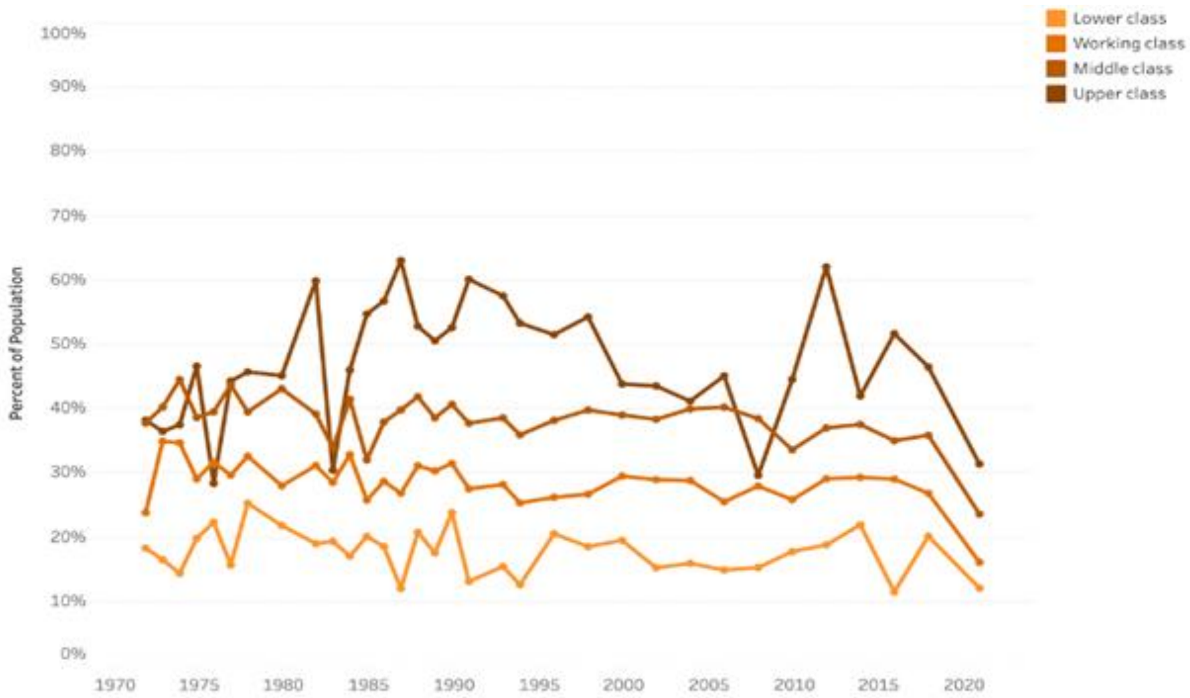


Figure2： Trends of per cent of the population that is "very happy" by different class Source: GSS Data explorer

Figure 3 shows data collected by a social survey in which participants were asked, "As far as the people running these institutions are concerned, would you say you have a great deal of confidence, only some confidence, or hardly any confidence at all in them?" Figure 3 shows the trends of the percentage of the US population who answered this question as "having a great deal of confidence toward banks and financial institutions."

Confidence in banks and financial institutions is likely to be associated with mental well-being because it demonstrates the personal level of financial security among the US public. Only when people trust the banks will they put their money in financial institutions so that the nation's money supply can run smoothly. The decline in confidence can be interpreted as a sign of economic insecurity, and the rise in confidence could reflect economic prosperity.

During the Great Recession, all Americans except the upper class demonstrated decreased confidence in their banks and financial institutions. The confidence of the upper class towards banks indeed plummeted, from about 48% in 2006 to only around 10% in 2008, the start of the Great Recession. However, the level began to rise again around 2015. The lower class demonstrated almost the same trend, decreasing to around 10% in 2008 and starting to increase again. The two trends only diverged in 2010, as the confidence of the lower class started to decrease again. Meanwhile, the working and middle classes also decreased confidence levels before 2008, but their level did not rebound like the upper and lower classes. The working- and middle-class population with great confidence in banks and financial institutions continued to decrease during the Great Recession.

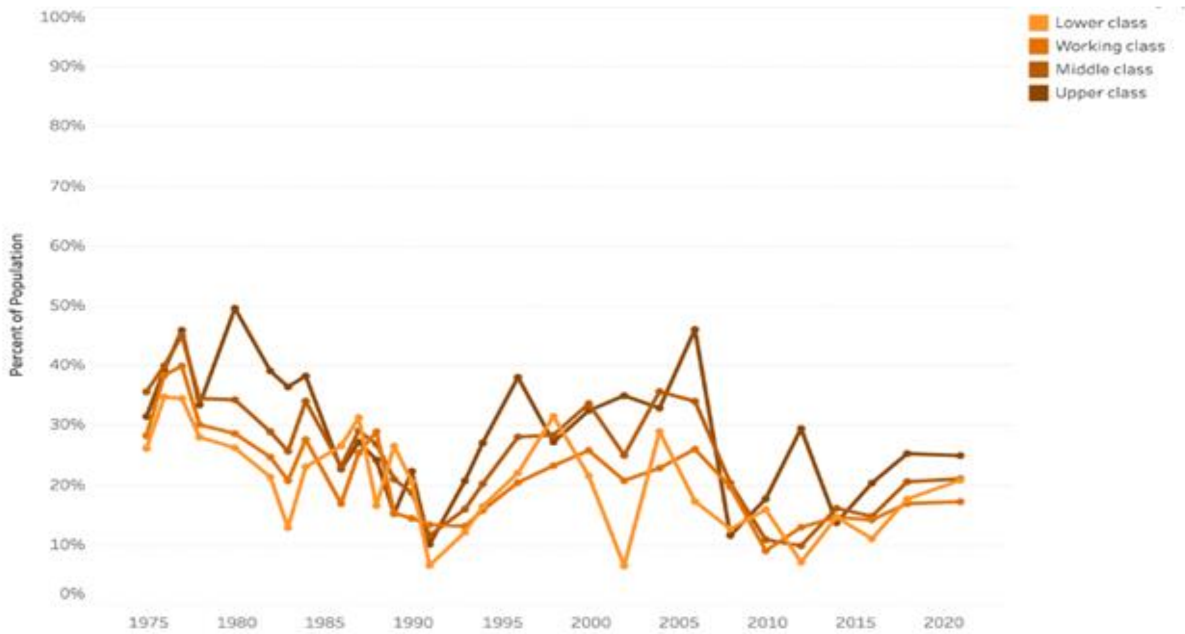


Figure3： Trends of the US public having a great deal of confidence toward banks and financial institutions Source: GSS Data Explorer

Figure 4 shows data collected by asking, "I am going to name some institutions in this country. As far as the people running these institutions are concerned, would you say you have a great deal of confidence, only some confidence, or hardly any confidence in them?" The trends shown in Figure 3 are that the per cent of the population of each class has a great deal of confidence towards the executive branch of the US government.

The executive branch includes the president, vice president, Cabinet, and the President's Executive Office [3]. During the Great Recession, the executive branch played a crucial role in changing the American general happiness level. The executive branch was responsible for the passage of Troubled Asset Relief Program (2008), the American Recovery and Reinvestment Act (2009), and the Dodd-Frank Act (2010). Such programs and acts impacted the national economy, indirectly changing how Americans felt about life and their mental status. This variable could also reflect in the general satisfaction of Americans with the government, which can be associated with happiness.

DOI: 10.54254/2753-7064/4/20220443

The percentage of the population with great confidence in the executive branch from the upper, middle, and working class dropped to about 10% in 2008. It was even lower for the lower class, with only about 5% of the population. Nevertheless, all classes began to increase their confidence in the executive branch after 2008, which seems related to the transition of presidential terms in 2009.

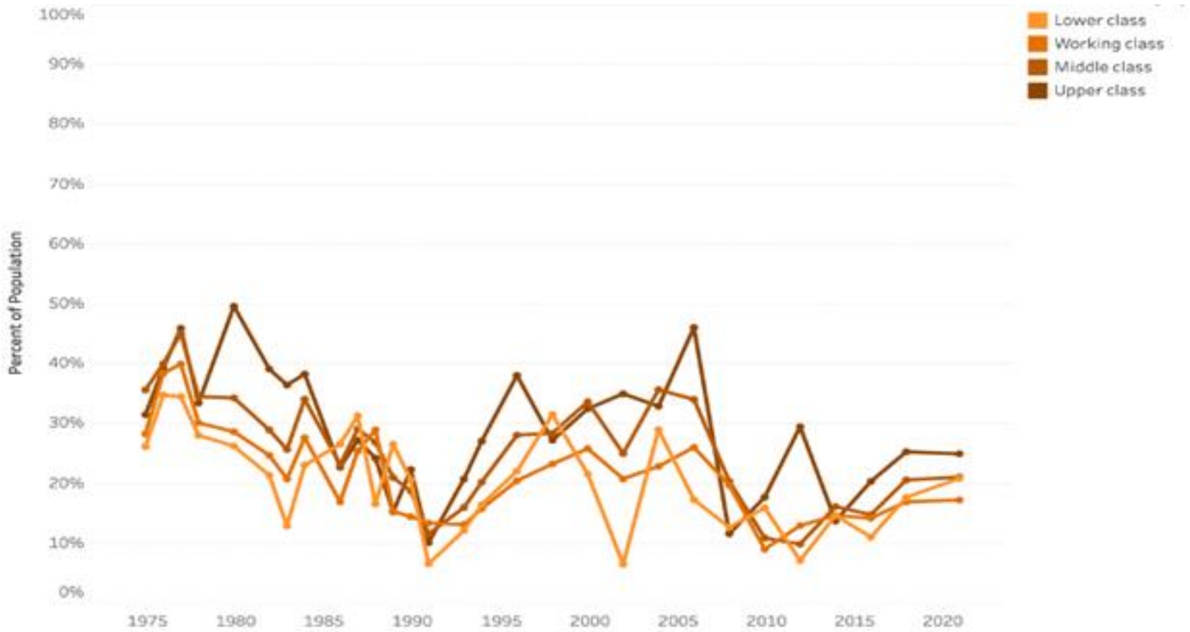


Figure4： Trends of the US public having a great deal of confidence toward banks and financial institutions Source: GSS Data Explorer

Figure 5 shows data collected from the question, "In general, some people think that it is the responsibility of the government in Washington to see to it that people have help in paying for doctors and hospital bills; others think that these matters are not the responsibility of the federal government and that people should take care of these things themselves; where would you place yourself on this scale, or haven't you made up your mind on this? The scale is from 1-5, and I do not know, 1 is the government should help, three being in agreement with both, 5 being the government should not help." Figure 4 shows the trends of each social class that answered this question with 1, that the government should help to pay for medical care.

The US public opinion towards medical care could indicate the nation's economic well-being. Typically, health insurance is provided by the companies that individuals work for. Nevertheless, since the initiation of the Great Recession in late 2007, the unemployment level has started to rise dramatically. Losing a job means people must pay for their health care themselves.

Figures 2, 3, and 4 demonstrated the same pattern in which the four trends are ranked in the wealth order: from the lower class at the bottom to the working class, middle class, and upper class at the top; Figure 5 showed the opposite pattern. The lower, working, and middle classes showed a corresponding decrease in the belief in letting the government pay for medical care from 2008-2015. The lower and working-class each showed a 20% decrease; the middle class showed about a 10% decrease. The upper class did not show the same downward trend and fluctuated the most, showing a sharp turning point during 2008.

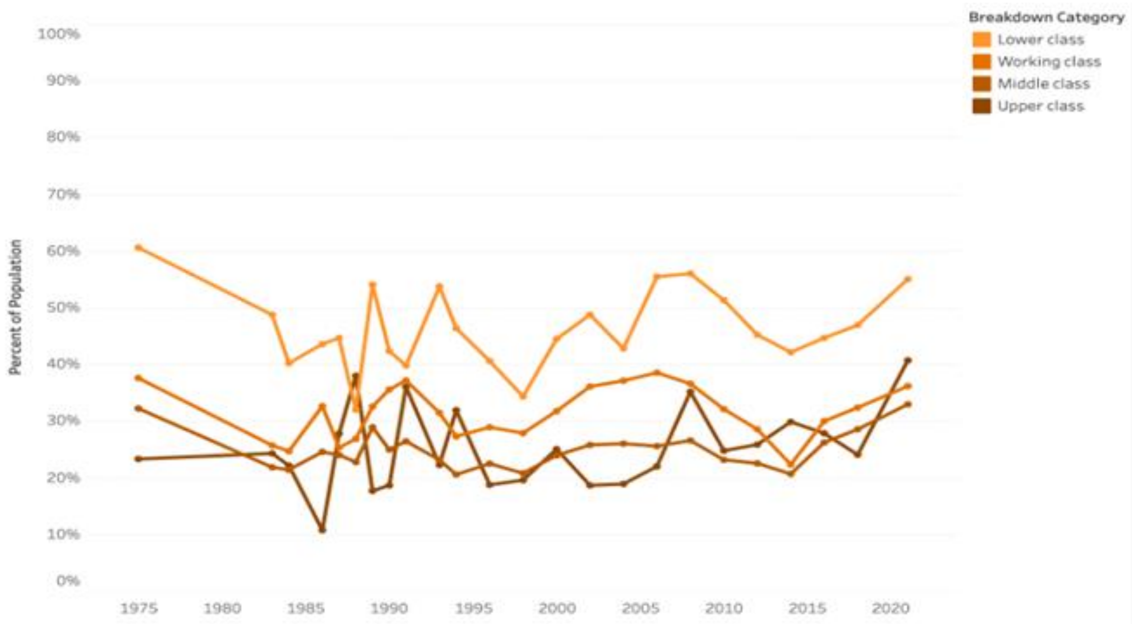


Figure5： Trends of if Government should help to pay medical care by class Source: GSS Data Explorer

### 3.2. Data from Federal Reserve Economic Data

This paper uses Federal Reserve Economic Data (FRED) as a secondary source for data collection, using the data on the economy during the Great Recession to reflect the happiness of Americans during the crisis. This source is an online economic database created and maintained by the Federal Reserve Bank of St. Louis. The source collects economic data from national, international, public, and private sources. The shaded region of the graph by FRED indicated the official period of the Great Recession.

Data in Figures 6 and 7 of this paper are collected monthly, retrieved from FRED but originated from the US Bureau of Economic Analysis (BEA). BEA is an agency of the Department of Commerce which provides objective data for the US economy.

Figure 6 shows the variation in Americans' real disposable personal income over time. According to the definition of personal income from the US BEA, it is the money that people receive from employment, dividends, interest, business ownership, Social Security, and other government benefits. The specific labelled time of October 2008 indicates the passage of the Troubled Asset Relief Program by President George W. Bush.

The absolute disposable personal income level can provide information about the state of the American economy and anticipated consumer spending. Empirical findings indicate that a higher degree of satisfaction is linked to an increase in overall consumer spending; spending more on necessities of life, education, and presents is positively and strongly correlated with greater levels of happiness [4].

The real disposable personal income initially had not been affected by the Great Recession indicated by the shaded region in Figure 6. Then, unexpectedly, there was a significant increase from 11,500 to 12,100 in May 2008, then a return to 11,5000 by August 2008. Since then, the level of personal income fluctuated until 2010, when that trend showed steady average growth.

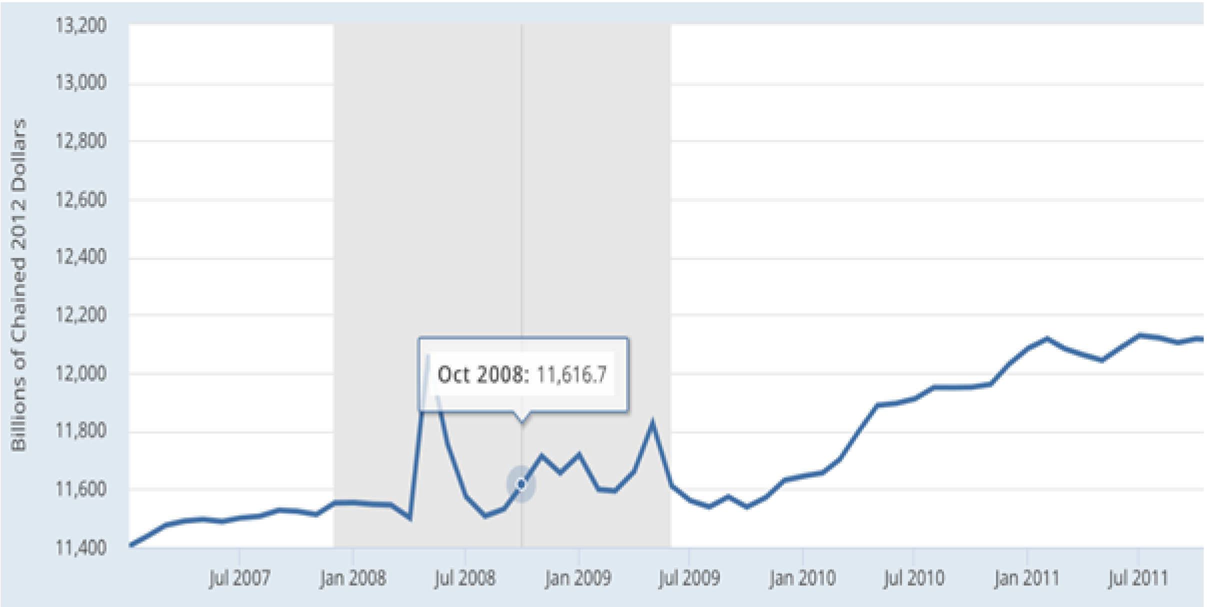


Figure6： Real Disposable Personal Income in the US from 2007-2011 Source: US BEA, retrieved from FRED

Figure 7 shows the variation in the US unemployment level over time. As explained by FRED, the Unemployment Level is the aggregate measure of people currently unemployed in the US: anyone in the labour force who was not employed during the survey reference week was available for employment and made at least one active attempt to find employment during the 4-week survey period is considered as unemployed.

The unemployment level of the US can be used as evidence to assess the economy's overall health. Research has shown that people without jobs report feeling less satisfied with their lives than employed people [5].

Figure 7 shows that the Great Recession has caused a significant rise in unemployment levels. The unemployment levels nearly doubled during the period of recession, from approximately 7,800 to 14,800 thousand, and it continued to increase until about 2010. After the recession, the unemployment levels had a slow recovery. By 2015 it had not yet returned to the pre-recession year's levels.

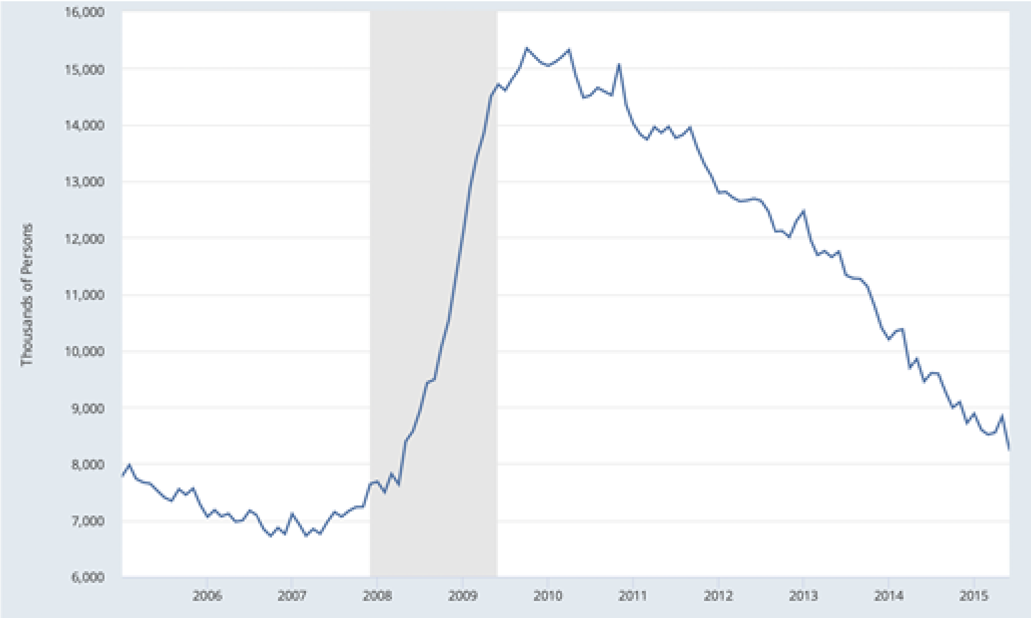


Figure7： Trend of US unemployment from 2005-2015 Source: US BEA, retrieved from FRED

Figure 8 shows S&P 500's stock market trends over time, as collected daily by S&P Dow Jones Indices. The S&P 500 reflects the daily index value as of the market close. The large-cap U.S. equity market is thought to be represented by the S&P 500 index. The index, which covers 75% of U.S. equities, consists of 500 top companies in top sectors of the American economy that are publicly traded on either the NYSE or NASDAQ.

The S&P 500 index indicates the well-being of the major companies, which in turn can reflect the general well-being of the economy. Even though the overall growth and prosperity of a nation's economy may not indicate an increase in happiness, adverse shocks and comparisons to the past could represent a decrease in the level of happiness.

From Figure 8, the Great Recession significantly damaged the stock market as the index dropped by about 50% from around 1,600 to 700. The stock market only regained the index back to the pre-recession stage in 2013. However, the stock market in the US continued to flourish after 2013, reaching a historic high of over 2,000.


Figure8： Stock market trend of S&P 500 Source: S&P Dow Jones Indices LLC, retrieved from FRED

DOI: 10.54254/2753-7064/4/20220443

### 3.3. Data from Other Sources

Figure 9 shows the distribution of wealth in trillions of dollars in the US collected by the Federal Reserve. Wealth, also known as net worth, is the value of a family's assets, such as a house or a savings account, minus any outstanding debt, such as a school loan or mortgage. Wealth may be a source of retirement income, offer protection from sudden economic downturns, and ensure future generations safety and social standing [6]. The four different trends represent different groups of the population. The cyan trend represents the wealth controlled by the top 1% of the population. The grey trend represents the wealth controlled by 90-99% of the population. The pink trend represents the wealth controlled by 50-90% of the population. Finally, the blue trend represents the wealth controlled by the bottom 50% of the population.

There is a proportional relationship between the increase in wealth and the increased level of happiness until the wealth exceeds $75,000 [7]. Even though there is a limit, the research still indicates a correlation between wealth and mental well-being. Meanwhile, the distribution of wealth can also indicate the inequalities within American society. The jealousy effect may occur when individuals become unhappy because they are disillusioned about the prospect of upward mobility and jealous of their wealthier peers [8]. Thus, inequality can also be viewed as a factor in individual mental well-being.

According to Figure 9, the distribution of wealth in the US remained constant from 1992-2020. The top 1%, 90-99%, and 50-90% of the population in the US each control about one-third of the country's total wealth, while the bottom 50% hardly holds only a minimal proportion of the wealth of the country. Figure 8 shows a 10 trillion dollar decrease in the total wealth of the US to the decrease in the trend in 2008. The wealth lost took about four years to regain, as the level of wealth in 2012 became similar to that of 2007. During 2012, the total amount of wealth rebounded back to that of the pre-recession period. Each group showed different levels of decrease in wealth. The most significant change occurred with the overall top 10% (top 1% and 90-99%), as they had the steepest decrease in wealth. The impact of the financial crisis on the wealth of the 50-90% and the bottom 50% is milder.

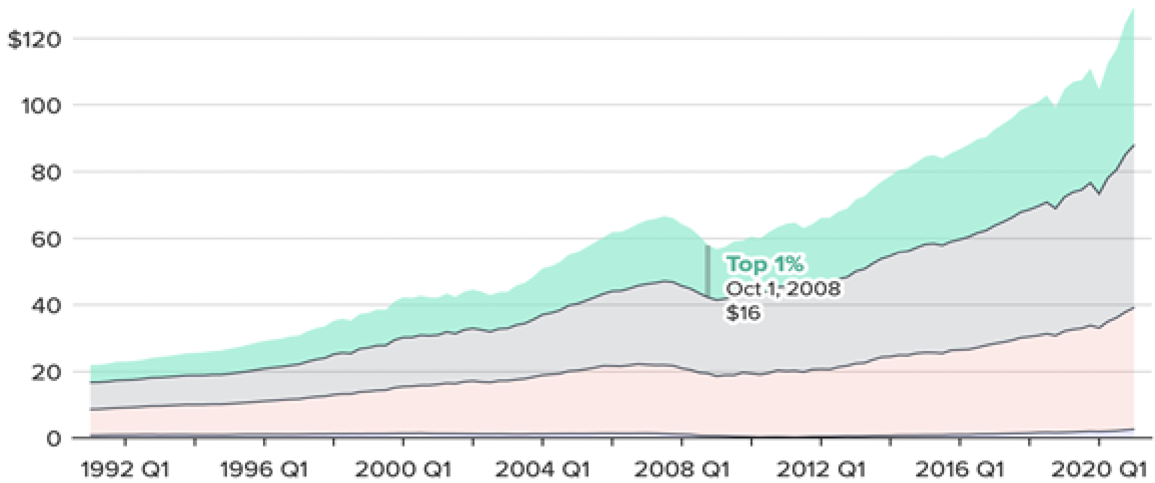


Figure9： The distribution of wealth in the US Source: Federal Reserve

Figure 10, collected by The World Top Income Database and retrieved by Osberg, shows the long-run accurate income growth rates in the US range from 1922-2012 of top 1%, bottom 99% and 90%, regarding a 10-year compound annual rate [9]. Income data were collected based on a returned tax report, representing taxable income. As the World Top Income Database had data since 1922, this

DOI: 10.54254/2753-7064/4/20220443

trend provides more implications for comparing the economic destruction during the Great Depression and the Great Recession.

The actual income growth rate is typically proportional to wealth, the stock market, and disposable income and inversely proportional to the unemployment level. Thus, we can associate the real income growth rate with the state of happiness and mental well-being.

Figure 10 indicates that the real income growth rate of the top 1% has been restored drastically, modelled by a significant slope on the graph since 2009. In contrast, the remaining 99% had a negative real income growth rate. This reflects that the "very upper" class of the US was walking out of the financial crisis of 2008, leaving the majority behind who were still suffering from the recession. It is interesting to find out from Figure 10 that the bottom 99% was doing better than the bottom 90%, which meant the top 2-10% was experiencing the most significant negative accurate income growth rates.

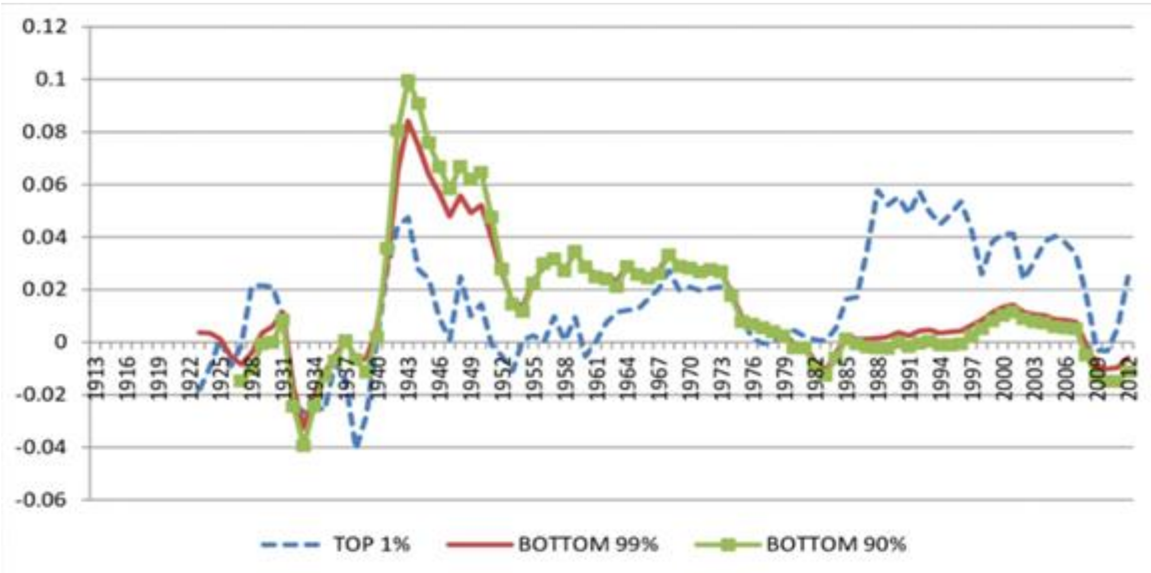


Figure10： Real income growth rates in the United States Source: The World Top Income Database

## 4. Analysis and Discussion

In chronological order, this section describes and analyzes how Governmental acts and political and societal events that occurred during and after the Great Recession affected Americans' mental well-being. All incidents played roles in changing the mental status of Americans between the period 2005 to 2015, and the effects of which differed among classes. While these incidents had positive or negative impacts, some exceptions had contradictory views among classes.

In March 2008, the Federal Reserve designed The Term Auction Facility, a monetary policy that increased liquidity in the U.S. credit markets [10]. It was one of the first governmental attempts to mitigate the negative economic shock created by the Great Recession. Since its creation, the Federal Reserve has auctioned more money into the facility monthly [10]. The Term Auction Facility could be the primary cause for this change as the Federal Reserve added another 150 billion to the Facility in May 2008 [10]. As reflected by Figure 5, there was a drastic increase in real disposable personal income in May 2008 and then a return to the previous stage. It indicated that the Term Auction Facility had a significant yet temporal increase of 500 in real disposable personal income in May. In other words, the policy boosted only the short-term happiness of Americans but had no effect in the long term.

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In October 2008, President George W. Bush passed the Troubled Asset Relief Program (TARP) through the Emergency Economic Stabilization Act (EESA) proposed by the US Secretary of Treasury Henry M. Paulson. The program granted the US Secretary of the Treasury $700 billion to purchase the troubled assets (subprime mortgages) owned by financial institutions. In addition, it aimed to secure banks' confidence by eliminating their illiquid asset [11]. Since the release of TARP in October 2008, the real disposable personal income has increased, yet not significantly, therefore, concluding that the effect of TARP on individual income was minor (recall Figure 6). However, the program relieved banks and lenders, contributing to the increase in general happiness of the upper class shown in Figure 1; the trend had a significant increase in slope from 2008 to 2009.

The Great Recession delayed effect on the stock market is reflected in Figure 8. Figure 8 indicates that the significant decrease in the S&P 500 index did not happen until 2009. While the effect was significant that the index cut more than half, the stock market's recovery was faster than the unemployment level in Figure 6. With some fluctuations, the S&P 500 index returned to pre-recession years around 2012 and has continued to expand to higher levels. The difference between Figures 7 and 8 demonstrated through different perspectives that the Great Recession's economic impact can also vary. As shown by the data on the stock market, Paulson's TARP effectively revives the stock market. TARP was passed in the fourth quarter of 2008, and the S&P 500 index has increased since 2009. This trend can also be used as evidence to support the indication in Figure 1 that the upper class was regaining general happiness.

On November 4, 2008, Barack Obama won the 2008 election and was officially inaugurated following Bush in early 2009. He won the popular vote by 53 per cent to 46 per cent and the electoral college by 365 to 173, against John McCain, the oldest presidential candidate in history (Britannica) [12]. McCain was a Republican willing to work with Democrats to achieve legislative goals; his running mate, Sarah Palin, who developed a reputation for being impolitic and unpredictable, was the main reason for losing the election [13].

Among all the data, Figure 4 exhibits the only synchronized variations: attitude toward the executive branch of the Government was the same for the four distinct classes. Figure 4 shows a relatively substantial decrease in confidence level in the executive branch during the final days of Bush's presidency. His extreme unpopularity may explain this as the unemployment rate skyrocketed at the end of his term. Although Bush's TARP effectively revived the stock market, it was too late that it only went into effect in 2009, when he left office. The public had already lost trust towards his political actions. Americans then turned their hope towards their new presidential candidates, Obama and McCain. Obama campaigned on the idea that the government should not only bail out Wall Street but also restore order and bail out the main street; it helped him acquire support from the general public [14]. His promises regained general American confidence in the executive branch before 2010, according to Figure 4. The public's confidence towards the government can reflect an improvement in American mental well-being because they feel secure and satisfied. However, the prosperity did not last long. Incidents such as Occupy Wall Street during Obama's presidency demonstrated the ineffectiveness of his bailout policies, bringing down the mental status again. Therefore, the confidence level decreased again in 2010 for the lower, working, and middle classes. His healthcare policy was an additional factor that contributed to public discontent after 2010.

On March 23, 2010, President Obama signed the Affordable Care Act. It mandated that adults without insurance either pay a tax penalty or acquire an authorized private insurance policy through state-run exchanges. Insurance companies could no longer refuse to cover people with preexisting conditions, and low-income Americans could obtain federal subsidies to help pay for their coverage. Companies that did not provide health insurance would be subject to more outstanding taxes, while pharmaceutical and medical equipment producers would be required to pay yearly government fees [13].

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Figure 5 indicates the discontent of the US public toward Obama Care. Mandatory purchase of health insurance went against the principle of liberty and attracted many critics. Limiting the freedom of choice is attributed to the overall decline in the population who wants the government to pay for their healthcare. Moreover, to help pay for the reforms, everyone would have to pay higher Medicare payroll taxes. The lower, working, and middle classes all showed a decline in belief in letting the government pay for medical care from 2008 to 2015. The general negative attitude toward government policies suggests a decline in happiness levels. The upper and lower class had the most sensitive response in attitudes toward medical care during the time of the Great Recession, according to Figure 5, which supports the previous hypothesis that the financial crisis mostly had only a polarization effect. The drastic change in attitude towards medical care demonstrated the instability of society during the recession. The rapid change in attitudes toward the government reflects instability inside the society, indirectly demonstrating an adverse mental well-being condition.

On February 17, 2009, President Obama signed the American Recovery and Reinvestment Act (ARRA), an $812 billion economic stimulus bill. As recorded, the act helped the nation end the Great Recession in June 2009. The bill included $212 billion in tax reduction for individuals and businesses, money for renewable energy systems, budgets for construction projects to renew infrastructure (roads, bridges, levees, government buildings, and the electricity grid), food stamps, and unemployment benefits [13]. The intended audience was small businesses and middle to low-income families.

Recalling Figure 2, TARP and ARRA seem similar in improving individual happiness for the upper and lower class, showing an increase in the percentage of the population that considered themselves very happy since the passage from 2008 to 2010. The effect was most significant for the upper class, from 45% to over 60%. The lower class had a minor increase after the ARRA. This phenomenon made sense since the upper class held control over most businesses, and the reduction of tax would have the most significant effect on them. In contrast, the general happiness level of the working and middle class decreased from 2008 to 2010. There could be two explanations for this to happen. First, the hypothesis of the polarizing effect is wrong; in fact, the median household had been heavily affected by the negative economic shock. Alternatively, second, the hypothesis is still correct;. At the same time, the median household was the least affected; policies focused solely on helping the two poles of society, overlooking the working and middle classes.

The impact of ARRA was even more complex: while it improved the happiness of Americans, unemployment rates remained high. Figure 7 shows that the Great Recession has caused a significant rise in unemployment levels with a prolonged recovery. Until 2015, it had not returned to the level of pre-recession years. This points to the ineffectiveness of resolving the unemployment crisis. Since the actin 2009, unemployment continued to rise by 5,000 for another year. The US government had made estimations about the unemployment rate in the US, with and without the ARRA plan. However, after the actual passage, the level was even higher than the estimate without the ARRA plan [15].

On July 21, 2010, President Obama signed the Wall Street Reform and Consumer Protection Act, also called the Dodd-Frank Act. It established the Consumer Financial Protection Bureau to protect consumers from unfair loan practices and required government agencies to exercise greater oversight over complex new financial transactions [13]. The act's primary purpose was to lower the risk of creating another Recession. However, the act brought debates as many argued that it had restricted economic growth.

Figures 2 and 3 indicate a correlation between general happiness and confidence in banks and financial institutions. Between 2005-2008, the upper class had decreased in both variables correspondingly. However, since 2008, the general happiness of the upper class started to rise as their confidence level increased. The correlation further applies to other classes. Similarly, the happiness of the lower class also rose from 2008-2010, as their confidence in banks increased during this period.

Conversely, the working and middle class decreased general happiness and the confidence level in banks from 2008-2010.

The response to the Dodd-Frank Act follows this pattern. Since it put forth limitations on loans, wealthy people have been dissatisfied with it. Figure 2 presents a decrease in the general happiness of the upper class from 2010-201. Further supported by Figure 3, the upper class started to lose confidence in banks and financial institutions around 2011, half a year after the bill's passage. However, the act was effective in its purpose. The remaining three social classes demonstrated a gradual increase in confidence levels in banks in Figure 3. The fact that the public did not have an immediate response to the bill supports the idea of its creation: looking at the future to prevent another recession in the long term.

On September 17, 2011, a protest which was later known as Occupy Wall Street, was organized by Adbusters, a Canadian anti-consumerist publication [16]. Hundreds of protesters participated in a weeks-long sit-in around the Zuccotti Park in lower Manhattan until removed by the NYPD [17]. It was a later recovery phase of the Great Recession. The activists claimed to represent the voice of 99% of Americans who were being victimized by the 1%: the wealthiest and most politically powerful Americans who controlled 38% of the nation's wealth [13]. Indeed, the wealth inequality gap was significant, and the top 10 per cent of the US household controlled up to about 75 per cent of the total national wealth by 2020 [6].

Figure 9 shows the inequalities in the distribution of wealth in the US: the distribution in the US remained constant from 1992-2020. The wealth gap has not increased since the Great Recession. Thus, this suggests that wealth inequalities had been an old problem for the US rather than a new one created by the Great Recession. This specific incident gained Americans' attention on the inequality problem. Figure 10 can be served as evidence to support the claim of the Wall Street protesters. After 2010, while most US public still suffered from negative income growth, the top 1% recovered rapidly (recall Figure 10). The unfair recovery speed displeased the "99%." Figure 10 can be corroborated with the jobless recovery shown in Figure 7, a term that explains when the economy was revived from a financial panic, but the unemployment level was not. In 2013, five years after the recession, the unemployed population remained high compared to pre-recession years. Almost 12 million Americans were unemployed, 4.6 million have been unemployed for more than six months, and more than 3 million have been jobless for over a year [17]. From an experiment by Rand Ghayad, long-term unemployment can be a more severe and irreversible consequence, as companies avoid hiring workers who have been unemployed for over six months, resulting in a stage of permanent jobless [17].

Figure 2 and 4 further indicates the effect of the Occupy Wall Street movement. There has been a drastic decrease in the percentage of the upper-class population being "very happy" since 2011, the same year Occupy Wall Street is in Figure 2. Moving to 2012, the upper class demonstrated a decrease in confidence in the executive branch from Figure 4. This may suggest that the upper class is not satisfied with government protection of their safety; public outcry against the top 1% damaged the level of happiness among those in the upper class by creating instability in society.

## 5. Final Discussion and Conclusion

This paper concludes that the Great Recession impacted the mental well-being of every social class and each subsequent policy's effectiveness in alleviating Americans from the shock of the recession varied. The TARP during President Bush successfully revived the stock market, yet it did not increase the personal disposable income or the general happiness of the middle and working classes. Overall, bad performance in response to the Great Recession during Bush's presidency was reflected by decreasing trust towards the government, happiness levels, and other economic data. It also contributed to the short-term public revival of happiness and trust in the government as Obama first took office in the middle of the recession. Obama's recession plan and his political campaign brought controversial and contradictory effects. Obamacare negatively affected public attitudes towards the government. Even though the ARRA did not solve the unemployment problem, the TARP boosted the happiness levels of the upper and lower class from 2008 to 2010. The Dodd-Frank Bill brought increasing public confidence towards the banks and financial institutions. The bill also improved the general happiness of the lower, working, and middle classes but lowered the happiness of the upper class. Wealth inequality in the US had been an issue for a long time, yet the Great Recession became a catalyst for the aggravation of the problem. Occupy Wall Street demonstrated the dissatisfaction of the US public toward the top 1 %, which harmed the happiness level of the upper class.

There are two main limitations to this study. First, the data gathered for this paper was solely presented in the form of graphs. While graphs can show general trends, they cannot provide evidence of causation. Future research should include statistical analysis to prove causation between some variables studied. Another limitation is the sole use of quantitative data. One potential avenue for further research is qualitative analysis. For example, social media and newspapers were already prevalent during the Great Recession. Using Word Clouds or other data presentation techniques, one can uncover patterns of changes in attitudes and well-being with the Great Recession and other associated events. For example, an exciting avenue for research would be to compile frequently used hashtags on Facebook, Twitter, and Instagram during the Occupy Wall Street movement to study public attitudes toward this event. Nevertheless, the graphical analysis and discussion in this paper have uncovered important patterns and trends to help us understand the great recession's impact on Americans' well-being and subsequent government policies.

## References


[1] *Rodeck, D. (2022, August 18). What is a recession? Forbes. Retrieved August 26, 2022, from https://www.forbes.com/advisor/investing/what-is-a-recession/*

[2] *Wingen, T., Englich, B., Estal-Muñoz, V., Mareva, S., & Kassianos, A. P. (2020). Exploring the relationship between social class and quality of life: The mediating role of power and status. Applied Research in Quality of Life. Advance online publication.*

[3] *The United States Government. (2022, July 12). The executive branch. The White House. Retrieved July 29, 2022, from https://www.whitehouse.gov/about-the-white-house/our-government/the-executive-branch/*

[4] *Zhu, Z., Ma, W., Leng, C., & Nie, P. (1970, January 1). The relationship between happiness and consumption expenditure: Evidence from rural China. Applied Research in Quality of Life. Retrieved August 6, 2022, from https://econpapers.repec.org/article/sprariqol/v_3a16_3ay_3a2021_3ai_3a4_3ad_3a10.1007_5fs11482-020-09836-z.htm#:~:text=The%20empirical%20results%20show%20that%20a%20higher%20level,expenditures%20on%20basic%20living%20goods%2C%20education%20and%20gifts*

[5] *Knabe, A., Schöb, R., & Weimann, J. (2010, November 17). Unemployment and happiness: A new take on an old problem. VOX, CEPR Policy Portal. Retrieved August 7, 2022, from https://voxeu.org/article/unemployment-and-happiness-new-take-old-problem*

[6] *Horowitz, J. M., Igielnik, R., & Kochhar, R. (2020, August 17). 1. trends in income and wealth inequality. Pew Research Center's Social & Demographic Trends Project. Retrieved July 29, 2022, from https://www.pewresearch.org/social-trends/2020/01/09/trends-in-income-and-wealth-inequality/*

[7] *Luscombe, B. (2010, September 6). Do we need $75,000 a year to be happy? Time. Retrieved August 7, 2022, from http://content.time.com/time/magazine/article/0,9171,2019628,00.html*

[8] *Yu, Z., & Wang, F. (1AD, January 1). Income inequality and happiness: An inverted U-shaped curve. Frontiers. Retrieved August 7, 2022, from https://www.frontiersin.org/articles/10.3389/fpsyg.2017.02052/full*

[9] *Osberg, L. (2014, May). Canadian inequality, then and now: Can increasing inequality be a steady state? Retrieved July 30, 2022, from https://www.researchgate.net/publication/262859048_CANADIAN_INEQUALITY_THEN_AND_NOW_CAN_INCREASING_INEQUALITY_BE_A_STEADY_STATE*

[10] *Amadeo, K. (2022, April 30). 2008 financial crisis timeline. The Balance. Retrieved July 31, 2022, from https://www.thebalance.com/2008-financial-crisis-timeline-3305540*

*[11] Webel, B. (2013, June 27). Troubled asset relief program (Tarp): Implementation and status. Congressional Research Service. Retrieved September 23, 2022, from https://sgp.fas.org/crs/misc/R41427.pdf*

*[12] Britannica, T. Editors of Encyclopedia (2021, October 28). United States Presidential Election of 2008. Encyclopedia Britannica. https://www.britannica.com/event/United-States-presidential-election-of-2008*

*[13] Tindall, G. B., & Shi, D. E. (2013). America: A narrative history. W.W. Norton & Co.*

*[14] vicenews. (2018). Barack Obama preview | panic: The untold story of the 2008 financial crisis. YouTube. Retrieved August 27, 2022, from https://www.youtube.com/watch?v=GKLfU0U75Es*

*[15] Feyrer , J., & Sacerdote, B. (2011, February). Did the stimulus stimulate? real time estimates of the effects of the American Recovery and Reinvestment Act. National Bureau of Economic Research. Retrieved August 2, 2022, from https://www.nber.org/system/files/working_papers/w16759/w16759.pdf*

*[16] History.com Editors. (2021, September 14). Occupy Wall Street begins. History.com. Retrieved August 14, 2022, from https://www.history.com/this-day-in-history/occupy-wall-street-begins-zuccotti-park*

*[17] Krugman, P. (2013, April 22). The jobless trap. The New York Times. Retrieved July 30, 2022, from https://www.nytimes.com/2013/04/22/opinion/krugman-the-jobless-trap.html*