In the following pages we will describe our findings based on gathered statistical data from IPUMS USA (https://usa.ipums.org/usa/), regarding household incomes from 2000 to 2014. We analyzed data considering both gender and race. In particular, we divided the race in Caucasian, African American, Hispanic and Asian (Chinese and Japanese) and studied males and females respectively. Our thesis is based on proving the existence of some fundamental differences between both gender and race caused by the financial crisis of 2008. In conclusion, we manipulated the purchasing power and put it in terms of the year 2015 because we wanted to have an even perspective on all the values present, especially since the value of the dollar has changed in the last 15 years. Furthermore, we had to adjust our data to remove the outliers that went skewed the data to far up, since it would not show the true story of the average American household. For this reason, we eliminated every income which exceeded the reasonable maximum of 2 million dollars. In fact, some data may be not available or missing and was assigned a value of 9999999.

Here we presented all the main information that we used in order to proceed with our studies. Since we decided to assess the financial crisis and the impact in terms of household income, our summary statistics provides an overview of both the general situation over 15 years and the breakdown by gender and race.

It can be seen that the average income from 2000 to 2014 was $82,350 dollars. The least amount of money earned was $25,090 dollars, experienced in 2003. Whereas, the highest peak of $1,570,000 dollars was recorded in 2006. Curiously enough, during the very preceding years of the financial crisis. We can also estimate how volatile the income has been, with an overall standard deviation of:

A lot of information is provided in the previous summaries. It can be seen that the highest income was earned by both a man and a woman of Caucasian origin. On the other hand, the minimum, negative income, was associated to a white man. Unhappily, on average, the lowest income was experienced by African Americans, with $54,900 dollars. Whereas, Asians recorded the highest

earnings, with $106,300 and $101,600 dollars for Chinese and Japanese Americans respectively. It can also be observed that the Japanese returns were the most volatile over the period considered, with a sample standard deviation of

Hypothesis Tests

As far as our computations are concerned, it is important to outline two facts:

1. The tests statistics will be represented by the difference between two variables (income mean men and women).

2. We took advantage of the Central Limit Theorem, since our sample size, for both variables, is greater than 100,000 units. For this reason, we decided to consider the distribution as a standard normal.

Therefore, to confirm or disprove this hypothesis, we adopted a two­sided test. In particular, we chose to allow only a minimum degree of uncertainty, implying a 99% confidence interval. Finally, before presenting the results, it is important to say that we assumed independence in the sample data. Indeed, this seems to be a reasonable deduction, since in almost every case, one and only one gender is attributed to one individual, and every person is different from each other. The following steps indicate how we reached our conclusion: First we calculated our Test Statistics under the NULL Hypothesis, assuming therefore a difference of ZERO between the population means.