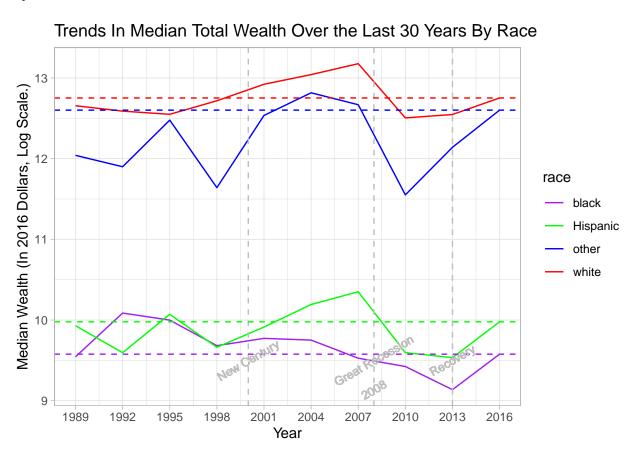
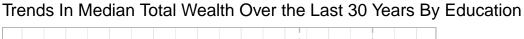
## Data Task

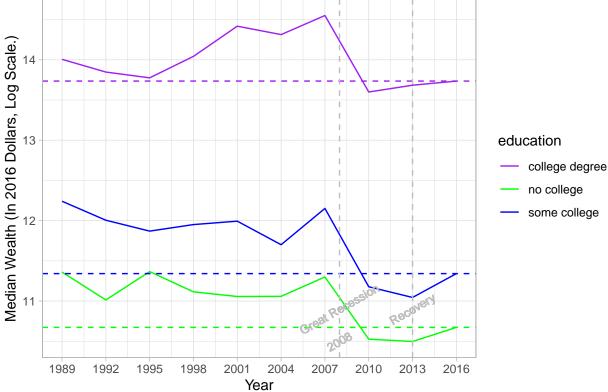
### Question 1



From the graph the first thing we can notice is that the race is divided into two groups, one group is white and other, another group is hispanic and black. These two groups' median total wealth are so divided that we have to add log scale to make them comparable.

As we can see, before 2000, median wealth from white, hispanic and black fluctuate while median wealth in other race experienced a large expand before 1995, then dropped from 1995 to 1998. At the new century, the median wealth of white, hispanic and other kept growing until 2007 (2008 data are not available), when median wealth all four races started to decrease because of the great recession, then rebounded after 2013. We can also notice (horizontal dashed line) that except for other, the other three races didn't have much increase in median wealth in 2016 compared to 1989.

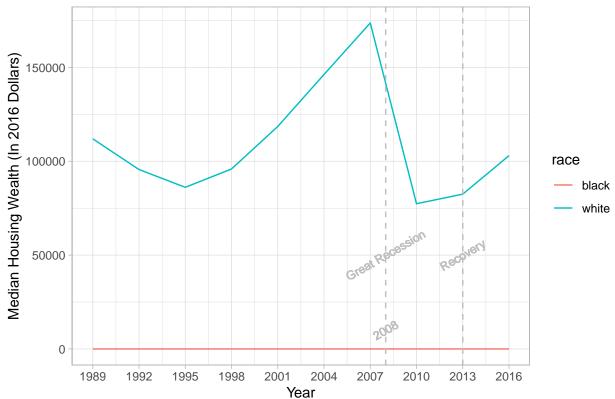




The graph shows that no matter what time, people with college degree have the advantage in median wealth compared to people with some college or no college. From 1989 to 2016, the median wealth from all three levels of education experienced similar trend, significant drop in 2007 (2008), and recovery around 2013. But the thing that worth notice is that, as of 2016, compared with the median wealth in 1989, people with college degree have lost much less, and those with some or without college education have lost much more.

## Question 2

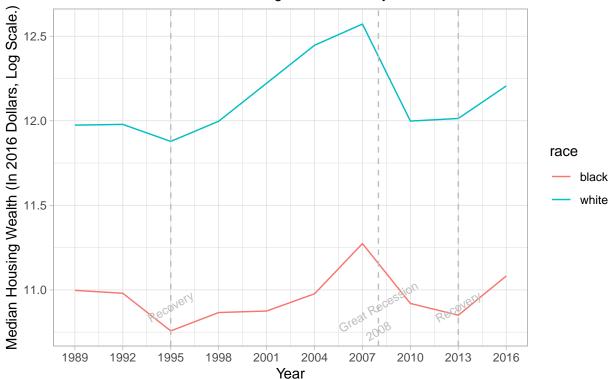




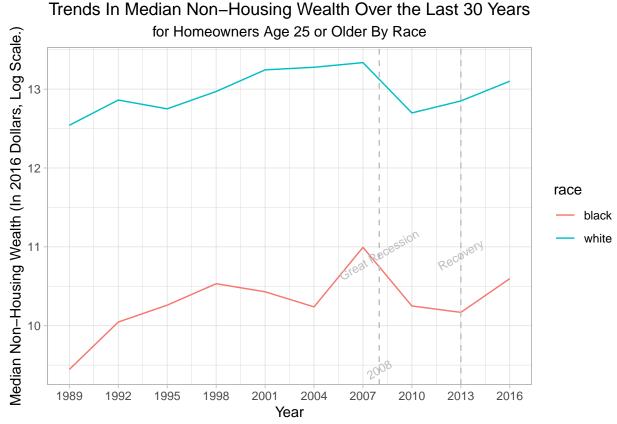
The figure illustrates that the median housing wealth for white people decreased from 1989 to 1992, continued to grow until the recession, then took a dive, and finally rebounded around 2013. The trend is pretty similar to what we have in median income. The curve for black people is just a straight line at 0, which means that most black race in this survey doesn't own a home.

## Question 3





When focusing on the homeowners age 25 or older, for both races, the median housing wealth declined from 1989 to 1995, started to increase from 1995 to 2007 (2008), dropped significantly in the recession, then rebounded around 2013. Different from median wealth, the median housing wealth at 2016 are higher than that in 1989 for both races.



Unlike median housing wealth, the median non-housing wealth for both races didn't experience the decline from 1989 to 1992. Both curve generally kept climbing until 2007 (2008), but the recovery happened earlier for white, which was in 2010.

Table 1: Loss in Housing Wealth Between 2007 and 2010

race	2007	2010	loss_in_dollars	$loss\_in\_percent$
black	78745.02	55266.44	23478.58	0.2981596
white	288345.74	162483.33	125862.41	0.4364982

According to the table, white group had the largest loss in housing wealth, in both dollar and proportional terms.

# Question 4

The first factor of influence that came into my mind was education and we happen to have that part of data in the survey. So I looked into the trend of percentage of some college or college degree for different races. Here is the table.

Table 2: Percent of Some College or College Degree from 1989 to 2016 By Race

race	1989	1992	1995	1998	2001	2004	2007	2010	2013	2016
black	26.62338	41.73669	39.47368	40.57971	38.31169	48.76033	50.00000	48.86076	53.27979	55.99520
Hispanic	27.77778	27.64977	37.64045	31.20000	30.10753	26.43678	32.90735	37.71518	33.33333	42.64706
other	53.91304	62.08791	72.52747	72.72727	76.22951	78.31325	79.66102	73.22034	77.93103	79.12773
white	58.67866	65.14286	63.50098	65.98056	67.50489	69.72451	67.95564	66.37243	69.18381	72.55077

The table shows that the high education rate for black people doubled in the past 20 years, reached 56% in 2016, and white have increased from 58.7% to 72.6%. But from the first graph, the gap of the total wealth between white and black didn't really change a lot, there was still a huge gap even though black people got significantly better education in 2016. One possible explanation could be the lag of education effect. It could take some time for those who first got their college degree in 2016 to actually get paid to work and to be reflected on wealth. So it would be beneficial if the later wealth and education data are available.

Another important and measurable factor of influence is the neighborhood characteristics. A lot of research have shown that people that grew up in the low opportunity area (Low Income Area) would end up generating less wealth in the future. So we might want to go back to 20 years ago, look at the demographic information in a low opportunity area, and track people who had moved to a higher opportunity area, and then compare their income in 2016. Or maybe we can focus on the black communities that has different levels of opportunities (Incomes) and see how much do kids in different communities earn when they grow up. These data are relatively accessible from the government database.