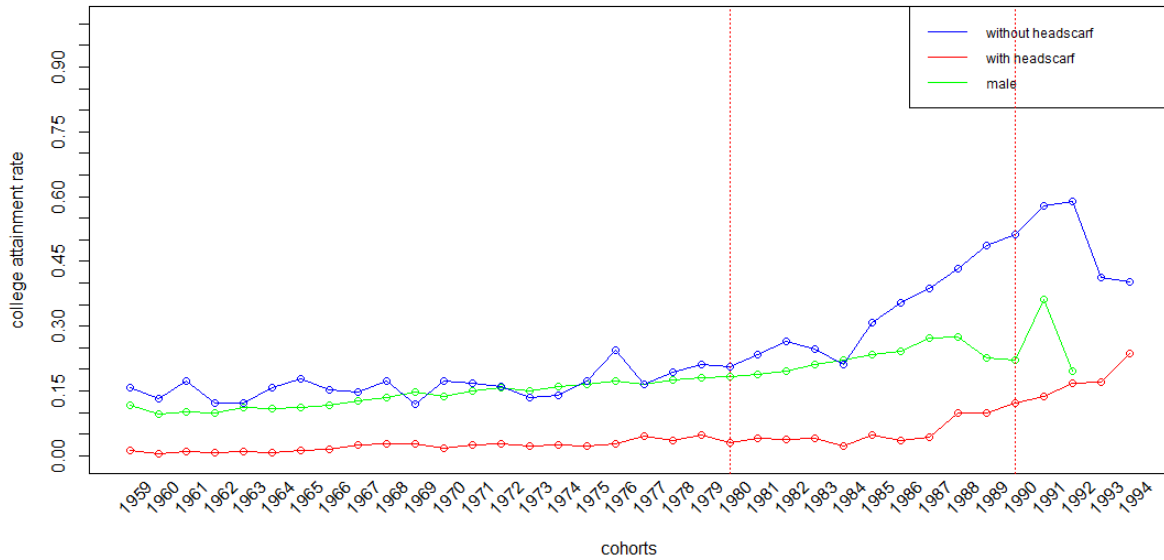


Problem Set #5: Visualization

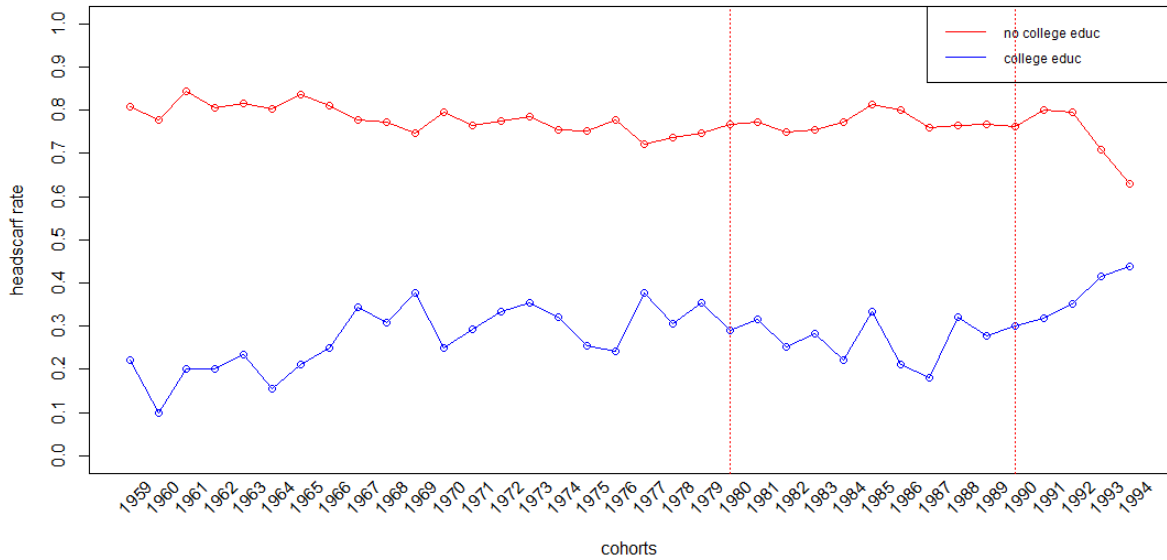
For this assignment, I focus on the impact of a headscarf ban in universities in Turkey that took place between 1998 - 2008. This ban was passed by the National Security Council in 1997 and prohibited headscarved females to obtain higher education in Turkey. The direct effect of this ban is that females who wore a headscarf during that period were not allowed to get higher education. Thus they had to revise their life-time decisions concerning education outcomes. In addition, there could be further effects on their employment level since they would face harsher conditions in the labor market as they would not be able to signal their productivity through holding a college degree.

Data: The data that I use comes from Turkey Demographic and Health Survey (TDHS), which includes questions regarding whether the respondent wears a headscarf and performs other religious practices. The sample consists of females aged between 15-49 and is nationally representative. It also includes the education level, past employment, marriage and birth records of each respondent, along with rest of their other characteristics such as their age, income group, city of residence, education level of mother and father. The second source is Household Labor Force Survey (LFS) constructed by Turkish Statistical Institute (TurkStat) which includes information on employment status and educational attainment of both males and females.

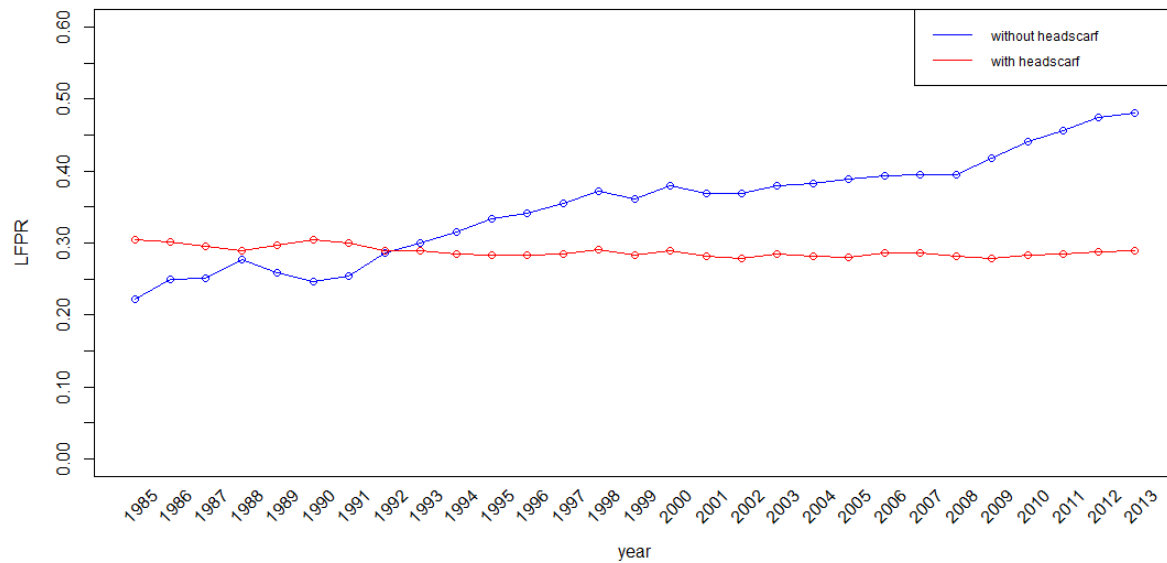
Figure 1: College education attainment rate

Notes: TDHS (2013) and TUIK LFS (2011) datasets are used for females and males, respectively.

Interpretation: The first figure plots the college attainment rate for the cohorts from 1959 to 1994 that belong to three different groups; females who don't wear headscarf, females who wear headscarf and males. Vertical lines show the interval of cohorts who were affected by the ban. (i.e. those who were in college-age while the ban was in place) We can see that before the ban, trends look similar, but during the ban was being implemented, females who don't wear headscarf have achieved higher college attainment rates relative to those who wear headscarf. Looking further at the plot, males seem to be not affected by the ban which makes sense. We can also see that once the ban was lifted, college attainment rate significantly increased for females who wear headscarf relative to those who do not wear headscarf.

Figure 2: Headscarf wearing rate**Source:** TDHS (2013)

Interpretation: The second figure plots the headscarf wearing rate among females for the cohorts from 1959 to 1994 that belong to two different groups; those who received college education and those who did not. Similar to the previous plot, vertical lines show the interval of cohorts who were affected by the ban. It is possible to observe that once the ban was lifted headscarf wearing rate among college students (or who received college education) increases while the rate goes down for those who never received college education. This implies that there is a flow of headscarved females towards colleges.

Figure 3: Labor force participation rate over time

Source: TDHS (2013)

Interpretation: The third and final figure plots the labor force participation rate (LFPR) among females for the years from 1985 to 2013 that belong to two different groups; those who wear headscarf and those who don't wear headscarf. We can see that there is an increasing trend of LFPR for females who don't wear headscarf while LFPR is relatively constant for females who wear headscarf. Hence the LFPR gap between these two groups is increasing and it seems from the graph that once the ban was lifted in 2008, the increase in the gap became accelerated. This could be due to headscarved females facing harsher conditions in the labor market as they have not been able to signal their productivity through holding a college degree. Another factor that could drive this result would be that once the ban was lifted, headscarved women started to give more priority to college education hence postponing their decision to join the labor force and opting to become college students.