The attached data set has n=1128 observations with 28 variables, i.e., data[1128, 28]. However, we only need 7 variables for the wage regression. These variables are:

*wage* = data[., 28]

*gender* = data[., 7]

*exp* = data[.,8]/40. *exp* is the experience variable. It is defined as *age* (data[., 8]) divided by 40.

*marry* = data[., 10]. It is *marry* = 1 if married or cohabitation; *marry* = 0, otherwise.

*edu* = data[., 12]/10. *edu* is the education variable. It is defined as *years in school* (data[., 12]) divided by 10.

*gov* = 1 if data[., 17] = 9; *gov* = 0, otherwise. It is a dummy variable that indicates government worker and is identified by data[., 17] = 9.

*farm* = 1 if data[.,16] = 1; *farm* = 0, otherwise. It is a dummy variable that indicates worker is in farming industry and is identified by data[., 16] = 1.

Regular regression:



Quantile regression:



Smooth coefficient Quantile regression:



