Soc. 740
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Supplemental Introductory Assignment

Do Exercise D2.3, using the United Nations social indicators data set in `UnitedNations.txt` (on the website for the *Applied Regression* text) and examining the relationship between the total fertility rate (treated as the response variable) and each of GDP per capita, female illiteracy, and contraception. Use the `scatterplot` function in the **car** package to examine these relationships. If you're working on your own computer, make sure to install the **car** package from CRAN, e.g., with the command `install.packages("car")`.

After starting R, you can proceed as follows:

- If you have an active Internet connection, you can read the data directly from the web site for the text,

```
    UN <- read.table(
"http://socserv.socsci.mcmaster.ca/jfox/Books/Applied-Regression-2E/datasets/UnitedNations.txt",
    header=TRUE)
```

- Alternatively, using a web browser, download the data file to your computer, and read it via

```
UN <- read.table(file.choose(), header=TRUE)
```

- Finally,

```
library(car)
scatterplot(tfr ~ GDPperCapita, span=0.5, data=UN)
scatterplot(tfr ~ illiteracyFemale, span=0.5, data=UN)
scatterplot(tfr ~ contraception, span=0.5, data=UN)
```

In each case, adjust the span of the local regression if necessary to obtain a smooth, but not over-smooth, fit. Optionally check out `?scatterplot` and explore some variations.

If you like, you may do this analysis using the R Commander:

- Start the R Commander with the command `library(Rcmdr)`. You must first install the **Rcmdr** package, e.g., by `install.packages("Rcmdr")`. The first time that it starts, the **Rcmdr** will ask to download packages on which its depends; you should allow it to do that.

- Select *Data → Import Data → from text file, clipboard, or URL*, change the data set name to `UN` (if you wish), and navigate to the location of the data file, `UnitedNations.txt` or enter the URL for the file.

- Select *Graphs → Scatterplot* from the menus and complete the dialog box appropriately to make each scatterplot.

Submit the three graphs that you draw, along with your commentary (don't forget the commentary!). Remember that you can copy and paste R graphs and text output into a word processor, and that you should use a monospaced font, such as `Courier New`, for the text.