

Example 7-1 and Figure 7-1

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```
[ ]: # install the following packages and libraries
install.packages("plm")
install.packages("pder")
install.packages("ggplot2")

library("plm")
library("ggplot2")
```

```
[6]: ##-----Block 1-----

#### Example 7-1 ####

## -----

data("DemocracyIncome", package = "pder")
data("DemocracyIncome25", package = "pder")

## -----

pdim(DemocracyIncome)
head(DemocracyIncome, 4)
```

Balanced Panel: n = 211, T = 11, N = 2321

country	year	democracy	income	sample
Andorra	1950-1954	NA	NA	0
Andorra	1955-1959	NA	NA	0
Andorra	1960-1964	NA	NA	1
Andorra	1965-1969	NA	NA	1

```
[7]: ##-----Block 2-----

#### Figure 7.1 ####

# subset data
di2000 <- subset(DemocracyIncome, year == "2000-2004",
                 select = c("democracy", "income", "country"))
```

```

di2000 <- na.omit(di2000)
di2000$country <- as.character(di2000$country)
di2000$country[- c(2,5, 23, 16, 17, 22, 71, 125, 37, 43, 44, 79, 98, 105, 50, 120, 81, 129, 57, 58,99)] <- NA

# plot the data
ggplot(di2000, aes(income, democracy, label = country)) +
  geom_point(size = 1) +
  geom_text(aes(y = democracy + sample(0.5 * c(-1, 1),
                                     nrow(di2000), replace = TRUE)),
            size = 2) +
  theme(legend.text = element_text(size = 8),
        legend.title = element_text(size = 10),
        axis.title = element_text(size = 10),
        axis.text = element_text(size = 8))

```



