

Nutzung von GeoDaten in den Sozialwissenschaften - R interne Datensätze

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In R integrierte Datensätze

Das R-Paket datasets

```
library(datasets)
```

Beispiel Erdbeben Datensatz:

```
head(quakes)
```

lat	long	depth	mag	stations
-20.42	181.62	562	4.8	41
-20.62	181.03	650	4.2	15
-26.00	184.10	42	5.4	43
-17.97	181.66	626	4.1	19
-20.42	181.96	649	4.0	11
-19.68	184.31	195	4.0	12

FAO Datenbank

```
library("FAOSTAT")
```

```
FAOsearch()
```

```
test <- getFAO(query = .LastSearch)
```

```
colnames(test)[3] <- "Annual Population"  
kable(head(test))
```

FAOST_CODE	Year	Annual Population
100	1950	376325.205
104	1950	2913.093
110	1950	82199.470
114	1950	6076.757
118	1950	152.250
120	1950	1682.916

National health and nutrition examination survey

```
library(survey)  
data(nhanes)
```

SDMVPSU	SDMVSTRA	WTMEC2YR	HI_CHOL	race	agecat
1	83	81528.77	0	2	(19,39]
1	84	14509.28	0	3	(0,19]
2	86	12041.64	0	3	(0,19]
2	75	21000.34	0	3	(59,Inf]
1	88	22633.58	0	1	(19,39]
2	85	74112.49	1	2	(39,59]

Datensatz zum US Zensus

```
library(UScensus2010)
```

```
http://www.jstatsoft.org/htaccess.php?volume=37&type=i&issue=06&paper=true
```

Disclaimer: Funktioniert leider mit der neuesten R-Version nicht so gut

Weltbank Daten

WDI - World Development Indicators (World Bank) - Einführung in das Paket

```
library(WDI)
```

```
WDIsearch('gdp')[1:10,]
```

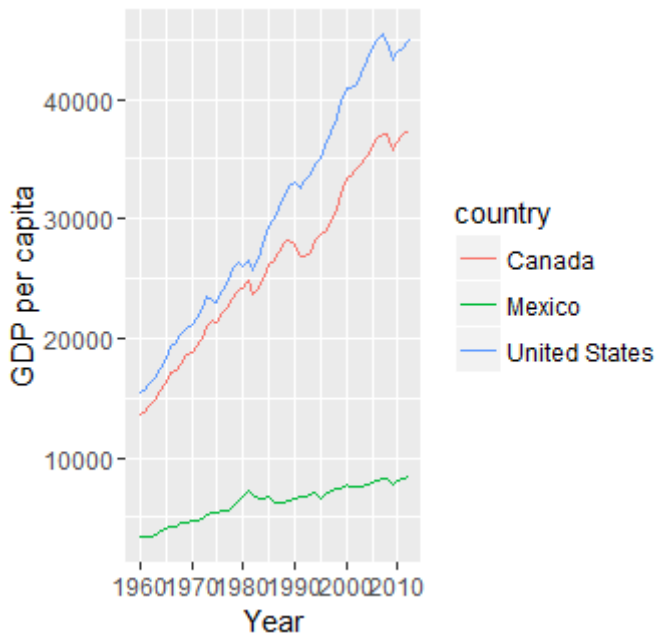
```
[1,] "Trade in services (% of GDP)"  
[2,] "Foreign direct investment, net outflows (% of GDP)"  
[3,] "Current account balance (% of GDP)"  
[4,] "Current account balance excluding net official capital grants  
(% of GDP)" [5,] "Net income (% of GDP)"
```

Nutzung von WDI Daten

```
dat <- WDI(indicator='NY.GDP.PCAP.KD',  
           country=c('MX', 'CA', 'US'),  
           start=1960, end=2012)  
head(dat)
```

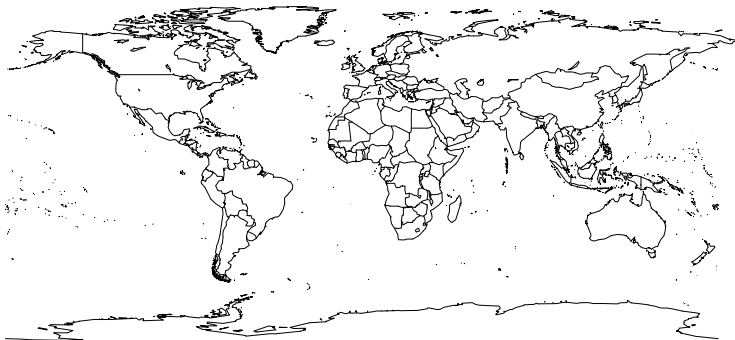
iso2c	country	NY.GDP.PCAP.KD	year
CA	Canada	37442.33	2012
CA	Canada	37176.16	2011
CA	Canada	36465.71	2010
CA	Canada	35670.58	2009
CA	Canada	37086.90	2008
CA	Canada	37054.88	2007

Erste Grafik mit WDI Daten



worldHires Daten

```
library(mapdata)
data(worldHiresMapEnv)
map('worldHires', col=1:10)
```



Historische Daten

► R-Paket HistData

```
library(HistData)  
data(Arbuthnot)
```

Year	Males	Females	Plague	Mortality	Ratio	Total
1629	5218	4683	0	8771	1.114243	9.901
1630	4858	4457	1317	10554	1.089971	9.315
1631	4422	4102	274	8562	1.078011	8.524
1632	4994	4590	8	9535	1.088017	9.584
1633	5158	4839	0	8393	1.065923	9.997
1634	5035	4820	1	10400	1.044606	9.855

Global Database of Events, Language, and Tone (GDELT)

- ▶ GDELT - <http://www.gdeltproject.org/>
- ▶ Daten zu TV-Sendungen, Online und Print-Artikeln etc.
(Beispiel 1, <http://www.kalevleetaru.com/>)

```
library(GDELTtools)
test.filter <- list(ActionGeo_ADM1Code=c("NI", "US"),
                    ActionGeo_CountryCode="US")
test.results <- GetGDELT(start.date="1979-01-01",
                         end.date="1979-12-31",
                         filter=test.filter)
```

GDELT Daten

Beispiel für enthaltene Daten

	Year	Actor2Geo_FullName	GoldsteinScale	Actor1Geo_Lat
49	1979	United States	3.0	0.0
147	1979	Cuba	0.0	38.0
148	1979	United States	3.5	21.5
149	1979	United States	-2.0	21.5

Die Goldstein Skala

Die Skala misst die Intensität von Konflikten

-10.0	223	Military attack; clash; assault
-9.2	211	Seize position or possessions
-8.7	222	Nonmilitary destruction/injury
-8.3	221	Noninjury destructive action
-7.6	182	Armed force mobilization, exercise, display; military buildup
-7.0	195	Break diplomatic relations
-7.0	173	Threat with force specified
-6.9	174	Ultimatum; threat with negative sanction and time limit
-5.8	172	Threat with specific negative nonmilitary sanction
-5.6	193	Reduce or cut off aid or assistance; act to punish/deprive
-5.2	181	Nonmilitary demonstration, walk out on

Figure 2: Die Goldstein Skala

<http://web.pdx.edu/~kinsella/jgyscale.html>