Kumar-Lab0

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What years are included in this data set? What are the dimensions of the data frame and what are the variable or column names?

```
source("c:/Users/sanjivek/Documents/Lab0/more/present.R")
dim(present)
```

```
## [1] 63  3
```

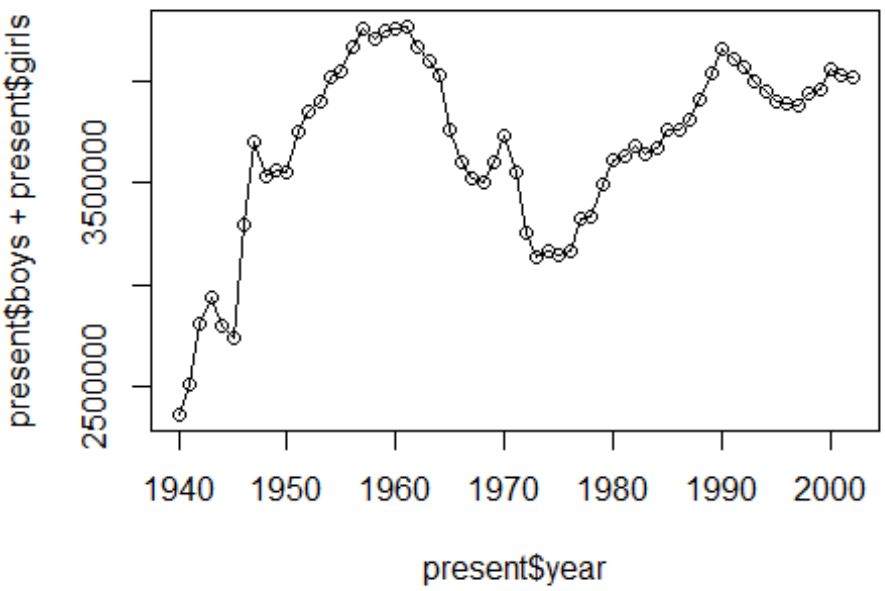
```
names(present)
```

```
## [1] "year"  "boys"  "girls"
```

```
present$year
```

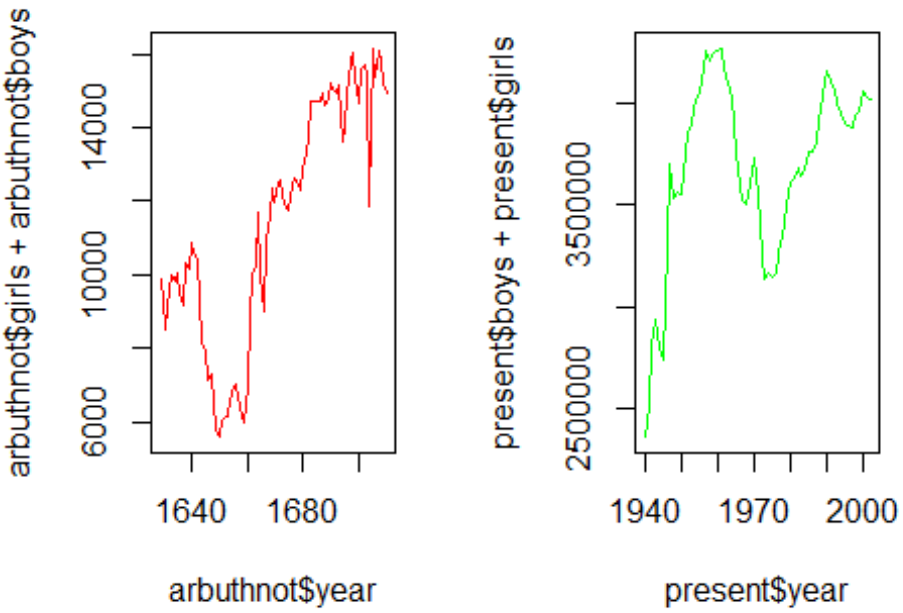
```
##  [1] 1940 1941 1942 1943 1944 1945 1946 1947 1948 1949 1950 1951 1952 1953
## [15] 1954 1955 1956 1957 1958 1959 1960 1961 1962 1963 1964 1965 1966 1967
## [29] 1968 1969 1970 1971 1972 1973 1974 1975 1976 1977 1978 1979 1980 1981
## [43] 1982 1983 1984 1985 1986 1987 1988 1989 1990 1991 1992 1993 1994 1995
## [57] 1996 1997 1998 1999 2000 2001 2002
```

```
plot(x=present$year,y=present$boys+present$girls,type="o")
```



How do these counts compare to Arbuthnots? Are they on a similar scale?

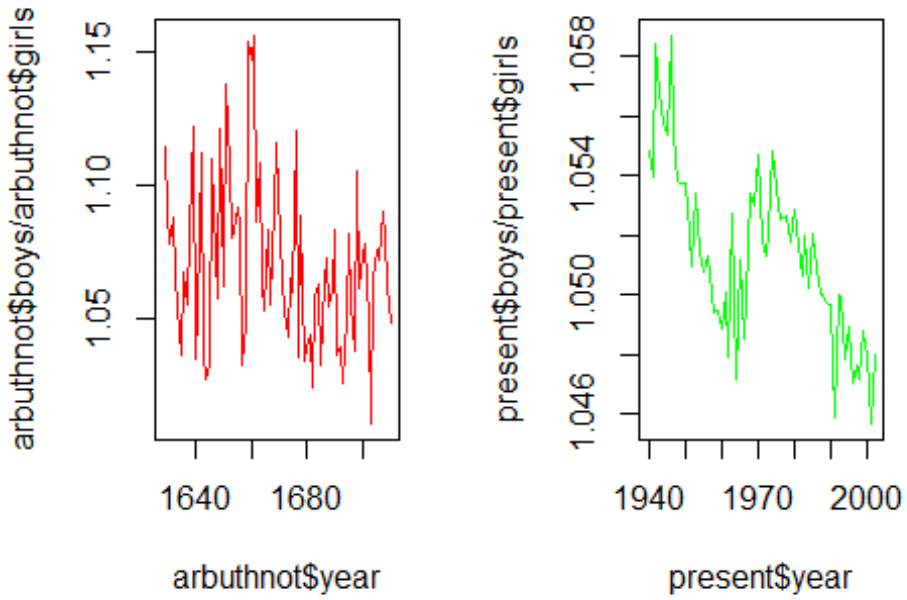
```
source("c:/Users/sanjivek/Documents/Lab0/more/arbuthnot.R")
source("c:/Users/sanjivek/Documents/Lab0/more/present.R")

par(mfrow=c(1,2))
plot( arbuthnot$year, arbuthnot$girls+arbuthnot$boys, type="l", col="red" )
plot( present$year, present$boys+present$girls, type="l", col="green" )
```



Conclusion: Analyzing both the graphs, Arbuthnot data shows that initial dip in new born seens from 1640 to 1660, on the contrary US present data shows a huge population growth from 1940 to 1960 and then there is a dip in growth for 10 years till 1970 and post that till now there is popultion growth same as arbuthnot data from 1660 to 1740.

Make a plot that displays the boy-to-girl ratio for every year in the data set. What do you see? Does Arbuthnot's observation about boys being born in greater proportion than girls hold up in the U.S.? Include the plot in your response.

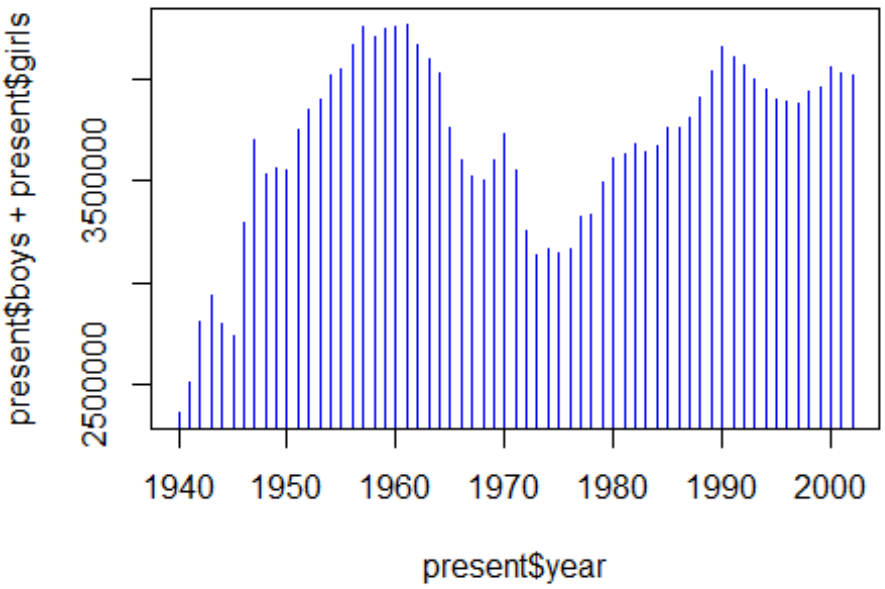
```
par(mfrow=c(1,2))
plot( arbuthnot$year, arbuthnot$boys/arbuthnot$girls, type="l", col="red" )
plot( present$year, present$boys/present$girls, type="l", col="green" )
```



Conclusion: Yes, it's true for US present population also, however if you see US data closely there is continous decline in the boys to girls ratio and it is converging towards 1 which means sooner this difference will be equated.

4.In what year did we see the most total number of births in the U.S.? You can refer to the help files or the R reference card

```
plot( present$year, present$boys+present$girls, type="h", col="blue" )
```



Conclusion: highest childs birth was on 1961 of 4,268,326 births.

```
```