Australia Populatio Report from 1977 to 2015

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Introduction:

Australia is a multicultural country with Six States and Ten federal territories. Australian Bureau of Staistics is independent statutory agency of the Australian Government responsible for statistical collection and analysis, and for giving evidence-based advice to federal, state and territory governments. The ABS collects and analyses statistics on economic, population, environmental and social issues, publishing many on their website. The ABS also operates the national Census of Population and Housing that occurs every five years. ABS has been collecting data from 1901 and most of their data is public and can be used for research purpose. I wrangled Data from their website to understand Australia and see the paatern that is emerging from the data.

- In this report we will analyse the following

    - Number of people born in every state from 1977 to 2015
    - Number of deaths in every state from 1977 to 2015
    - Inter State Migration from 1977 to 2015
    - International Migration from 1977 to 2015
    - Fertility Rate from 1971 to 2015

```
library(tidyverse)
```

```
## -- Attaching packages --------------------------------------- tidyverse 1.3.1 --
```

```
## v ggplot2 3.3.5      v purrr   0.3.4
## v tibble  3.1.3      v dplyr   1.0.7
## v tidyr   1.1.3      v stringr 1.4.0
## v readr   2.0.0      v forcats 0.5.1
```

```
## -- Conflicts ------------------------------------------ tidyverse_conflicts() --
## x dplyr::filter() masks stats::filter()
## x dplyr::lag()    masks stats::lag()
```

```
library(plotly)
```

```
##
## Attaching package: 'plotly'
```

```
## The following object is masked from 'package:ggplot2':
##
##     last_plot
```

```
## The following object is masked from 'package:stats':
##
##     filter


## The following object is masked from 'package:graphics':
##
##     layout

library(ggrepel)
library(viridis)


## Loading required package: viridisLite

library(directlabels)
library(ggthemes)
library(reshape2)


##
## Attaching package: 'reshape2'


## The following object is masked from 'package:tidyr':
##
##     smiths

Aus_stats <- read.csv("c:/users/60132690/Documents/Aus_stats.csv")


Aus_stats$`Number of Births` <- Aus_stats$Number.of.Births
Aus_stats$`Number of Deaths` <- Aus_stats$Number.of.Deaths
```

New South Walse Report:

New South wales (NSW) is a state on the east coast of Australia. It borders three other states, Queensland
to the north, Victoria to the south, and South Australia to the west. Its coast borders the Coral and Tasman
Seas to the east. The Australian Capital Territory is an enclave within the state. New South Wales' state
capital is Sydney, which is also Australia's most populous city. In June 2020, the population of New South
Wales was over 8.1 million, making it Australia's most populous state. Just under two-thirds of the state's
population, 5.3 million, live in the Greater Sydney area. The demonym for inhabitants of New South Wales
is New South Welshmen.

```
NSW <- Aus_stats %>% filter(State == "NSW")
NSW_birth_death <- NSW %>% select(Year, `Number of Births`, `Number of Deaths`)
NSW_melt_birth_death <- melt(NSW_birth_death, id = "Year")
NSW_melt_birth_death <- na.omit(NSW_melt_birth_death)
NSW_migration_info <- NSW %>% select(Year, Inter_state_migration, International_migration)
NSW_melt_data_migration <- melt(NSW_migration_info, id = "Year")
NSW_melt_data_migration <- na.omit(NSW_melt_data_migration)
NSW_melt_data_migration %>% ggplot(aes(Year, value, fill = variable)) + geom_bar(stat = "identity", pos
```