# ministersNor: An R package with data and desription for Norwegian ministers

## Martin G. Søyland University of Oslo

#### Abstract

To come

Keywords: Cox Proportional Hazard models, negative binomial models, Norwegian ministers, R.

### 1. Introduction

This description file contains the code and models used in the thesis "Survival of the ministers". Firstly, the two main survival models used in the thesis will be shown. Secondly, the robusness checks mentioned but not shown in the thesis will be displayed. Lastly, the resignation call count model with some predictive model fit tests are shown.

## 2. Ministerial durability

The first thing you have to install is the "ministersNor" package from github via the install\_github() function, and then load the data on Norwegian post-war ministers with data(ministers). Here is a sample of the data:

```
R> #### Load data ####
R> # Load ministers data
R> ## The data is included in the ministersNor package
R> #install_github(martigso/ministersNor)
R> library(ministersNor)
R> data("ministers")
R > head(ministers[,c(6,7,3,4,8)])
##
      last_name
                           first_name
                                            start
                                                         end party
## 1
       Andersen Magnus Kristoffersen 1963-09-25 1965-10-11
                                                               DNA
## 2
       Andersen Magnus Kristoffersen 1972-01-24 1972-10-17
                                                               DNA
## 3 Andreassen
                              Harriet 1980-10-03 1981-02-03
                                                               DNA
## 4 Andreassen
                              Harriet 1981-02-04 1981-10-13
                                                               DNA
                                Peter 1997-10-17 2000-01-21
## 5
       Angelsen
                                                                Sp
## 6
                          Leif JÄÿrgen 1973-10-16 1976-01-14
           Aune
                                                                DNA
```

The first model:

```
R> library(survival)
R>
R> model_1<-coxph(Surv(dur_start, dur_end, event2) ~ resigcalls + age_cen +
                factor(gender) + factor(youthCen) + factor(youthLoc) +
                minister_exp_cum_y_lag + factor(parlTen_dum) +
                factor(education_dum) + factor(reshuffle) +
                factor(CabinetType) + factor(structure) +
                frailty(jurisdiction),
              data=ministers, subset=prime_minister==0 & nsd_id!=299)
R.>
R> round(summary(model_1)$coefficients, digits=3)
##
                         coef se(coef)
                                      se2 Chisq
## resigcalls
                        ## age_cen
                        0.059
                                0.016 0.015 14.274 1.000 0.000
## factor(gender)Female
                                0.258 0.250 1.716 1.000 0.190
                        0.338
## factor(youthCen)1
                        -0.641 0.540 0.537 1.408 1.000 0.235
## factor(youthLoc)1
                        ## minister_exp_cum_y_lag
                        0.114 0.041 0.040 7.742 1.000 0.005
## factor(parlTen_dum)1
                        -0.658
                               0.271 0.268 5.892 1.000 0.015
## factor(education_dum)Lowe 0.003
                                0.280 0.273 0.000 1.000 0.993
## factor(reshuffle)1
                       ## factor(CabinetType)Majori 0.150 0.221 0.219 0.459 1.000 0.498
## frailty(jurisdiction)
                           NA
                                       NA 14.957 6.962 0.036
```

#### 2.1. Robustness models

## 3. Resignation calls

#### Affiliation:

Martin G. Søyland University of Oslo

E-mail: martin.g.soyland@gmail.com