

# Package ‘bayesDem’

November 22, 2016

**Type** Package

**Title** Graphical User Interface for bayesTFR, bayesLife and bayesPop

**Version** 2.5-1

**Date** 2016-11-21

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**Depends** R (>= 2.14.2), gWidgets, gWidgetsRGtk2, bayesTFR (>= 5.0-4),  
bayesLife (>= 3.0-1), bayesPop (>= 6.0-0)

**Suggests** wpp2012, wpp2010

**Imports** RGtk2, wpp2015

**Description** Provides graphical user interface for the packages 'bayesTFR', 'bayesLife' and 'bayesPop'.

**License** GPL (>= 2)

**URL** <https://bayespop.csss.washington.edu>

**NeedsCompilation** no

**Repository** CRAN

**Date/Publication** 2016-11-22 09:06:55

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bayesDem-package

*Graphical User Interface for bayesTFR, bayesLife and bayesPop*

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### **Description**

Provides Graphical user interface for the packages **bayesTFR**, **bayesLife** and **bayesPop**.

### **Details**

Package: bayesDem  
Version: 2.5-1  
Date: 2016-11-21  
License: GPL (>= 2)  
URL: <https://bayespop.csss.washington.edu>

The main function of the package is [bayesDem.go](#) which launches the GUI. It allows to run MCMCs and make probabilistic projections of total fertility rate (TFR) and life expectancy ( $e_0$ ) for all countries of the world, using Bayesian hierarchical models and the United Nations demographic time series, as well as probabilistic projections of total population.

The GUI has three main tabs, one for estimating and predicting TFR, one for estimating and predicting  $e_0$ , and one for projecting total population.

The first two sections are organized into four tabs corresponding to the four main tasks: Running MCMCs, Continuing MCMCs, Making predictions, and Exploring results. Each of those tabs is again separated into tabs corresponding to usually one **bayesTFR** or **bayesLife** function. Each tab contains a Help button that shows the help file of the corresponding function, a 'Generate Script' button that provides user with the corresponding **bayesTFR/bayesLife** command with argument values filled in from the GUI, and a button processing the function.

The third main section (for projecting total population) is separated into two tabs: One for generating predictions using given inputs, the other for exploring results. The user can generate population trajectories for given country, age and sex. In addition, probabilistic population pyramids can be also created from the GUI.

### Author(s)

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### References

A. E. Raftery, N. Li, H. Sevcikova, P. Gerland, G. K. Heilig (2012). Bayesian probabilistic population projections for all countries. *Proceedings of the National Academy of Sciences* 109:13915-13921.  
Hana Sevcikova, Leontine Alkema, Adrian E. Raftery (2011). **bayesTFR**: An R Package for Probabilistic Projections of the Total Fertility Rate. *Journal of Statistical Software*, 43(1), 1-29. <http://www.jstatsoft.org/v43/i01/>.

### See Also

[bayesTFR](#), [bayesLife](#), [bayesPop](#)

### Examples

```
## Not run:  
bayesDem.go()  
  
## End(Not run)
```

---

`bayesDem.go`*Start Graphical User Interface for bayesTFR and bayesLife*

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**Description**

The function launches Graphical User Interface for the packages **bayesTFR** and **bayesLife**.

**Usage**

```
bayesDem.go(wpp.year.tfr = wpp.year.default,  
            wpp.year.e0 = wpp.year.tfr, wpp.year.pop = wpp.year.tfr)
```

**Arguments**

<code>wpp.year.tfr</code>	WPP year used for simulating TFR. Default is 2012. Packages called <b>wpp</b> <i>x</i> where <i>x</i> is the <code>wpp.year</code> are used. Currently, 2012, 2010 and 2008 are available.
<code>wpp.year.e0</code>	WPP year used for simulating life expectancy.
<code>wpp.year.pop</code>	WPP year used for predicting population.

**Note**

For more information on World Population Prospects (WPP) data, see <http://esa.un.org/unpd/wpp>.

**Author(s)**

Hana Sevcikova

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