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Description A wide collection of univariate discrete data sets from various applied domains related to distribution theory. The functions allow quick, easy, and efficient access to 100 univariate discrete data sets. The data are related to different applied domains, including medical, reliability analysis, engineering, manufacturing, occupational safety, geological sciences, terrorism, psychology, agriculture, environmental sciences, road traffic accidents, demography, actuarial science, law, and justice. The documentation, along with associated references for further details and uses, is presented.
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Data Sets for Discrete Probability Models

Description

DDPM-package

A wide range of univariate discrete data sets from various applied domains related to distribution theory. The functions allow quick, easy, and efficient access to 100 univariate discrete data sets. The data are related to different applied domains as follows: medical, reliability analysis, engineering, manufacturing, occupational safety, geological sciences, terrorism, psychology, agriculture, environmental sciences, road traffic accidents, demography, actuarial science, law, and justice. The documentation, along with associated references for further details and uses, is presented.

Details

Package: DDPM
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Absence proneness 5

Absence proneness

The data show the number of absences of individuals

Description

The function gives the number of absences of individuals for studying absence proneness.

Usage

data_absen

Arguments

data_absen

A vector of (non-negative integer) count values.

Details

The data show the number of absences of individuals for studying absence proneness. They were used by Sichel (1951) and fitted by the negative binomial distribution.

Value

data_absen gives the number of absences of individuals.

Author(s)

Muhammad Imran

R implementation and documentation: Muhammad Imran <imranshakoor84@yahoo.com>.

References

Sichel, H. S. (1951). The estimation of the parameters of a negative binomial distribution with special reference to psychological data. Psychometrika, 16(1), 107-127.

See Also

data_absen

```
x<-data_absen
summary(x)
table (x)</pre>
```

6 Accident insurance claims

Accident insurance claims

The data consist of the number of accident insurance claims

Description

The function gives the number of accident insurance claims based on 16760 policies.

Usage

data_claims

Arguments

data_claims

A vector of (non-negative integer) count values.

Details

The data consist of the number of accident insurance claims based on 16760 policies in Mazandaran Province. Recently, they were used by Alshkaki (2016) and fitted by the zero-and-one inflated Poisson distribution.

Value

data_claims gives the number of accident insurance claims based on 16760 policies.

Author(s)

Muhammad Imran

R implementation and documentation: Muhammad Imran <imranshakoor84@yahoo.com>.

References

Alshkaki, R. S. A. (2016). On the zero-one inflated Poisson distribution. International Journal of Statistical Distributions and Applications, 2(4), 42-8.

Momeni, F. (2011). The generalized power series distribution and their application. The Journal of Mathematics and Computer Science, 2(4), 691-697.

See Also

```
data_claims, data_claim1, data_claim2, data_claim3, data_claim6, data_claim7
```

```
x<-data_claims
summary(x)
table (x)</pre>
```

Accident of working women

The data show the number of accidents of women working on Shells for 5 weeks

Description

The function gives the number of accidents of women working on Shells for 5 weeks.

Usage

data_wacci

Arguments

data_wacci

A vector of (non-negative integer) count values.

Details

The data show the number of accidents of women working on Shells for 5 weeks. They were used by Nekoukhou et al. (2013) and fitted by the discrete generalized exponential distribution of a second type.

Value

data_wacci gives the number of accidents of women working on Shells for 5 weeks.

Author(s)

Muhammad Imran

R implementation and documentation: Muhammad Imran <imranshakoor84@yahoo.com>.

References

Nekoukhou, V., Alamatsaz, M. H., & Bidram, H. (2013). Discrete generalized exponential distribution of a second type. Statistics, 47(4), 876-887.

See Also

data_indusacci

```
x<-data_wacci
summary(x)
table (x)</pre>
```

8 Accident proneness

Accident proneness

The data show the number of accident proneness of individuals

Description

The function gives the number of accident proneness of individuals.

Usage

data_acci

Arguments

data_acci

A vector of (non-negative integer) count values.

Details

The data show the number of accident proneness of individuals. They were used by Sichel (1951) and fitted by the negative binomial distribution.

Value

data_acci gives the number of accident proneness of individuals.

Author(s)

Muhammad Imran

R implementation and documentation: Muhammad Imran <imranshakoor84@yahoo.com>.

References

Sichel, H. S. (1951). The estimation of the parameters of a negative binomial distribution with special reference to psychological data. Psychometrika, 16(1), 107-127.

See Also

data_absen

```
x<-data_acci
summary(x)
table (x)</pre>
```

Accidents shrapnel shop

The data show the observed number of accidents in a 60-lb shrapnel shop

Description

The function gives the observed number of accidents in a 60-lb shrapnel shop.

Usage

data_accide

Arguments

data_accide

A vector of (non-negative integer) count values.

Details

The data show the observed number of accidents in a 60-lb shrapnel shop. They were used by Greenwood and Yule (1920) and underlined an inquiry into the nature of frequency distributions.

Value

data_accide gives the observed number of accidents in a 60-lb shrapnel shop.

Author(s)

Muhammad Imran

R implementation and documentation: Muhammad Imran <imranshakoor84@yahoo.com>.

References

Greenwood, M., & Yule, G. U. (1920). An inquiry into the nature of frequency distributions representative of multiple happenings with particular reference to the occurrence of multiple attacks of disease or of repeated accidents. Journal of the Royal Statistical Society, 83(2), 255-279.

See Also

data_indusacci

```
x<-data_accide
summary(x)
table (x)</pre>
```

Accidents to Belfast Corporation Transport

The data show the frequency distribution of accidents to Belfast Corporation Transport bus drivers

Description

The function gives the frequency distribution of accidents to Belfast Corporation Transport bus drivers.

Usage

data_belfast

Arguments

data_belfast A vector of (non-negative integer) count values.

Details

The data show the frequency distribution of accidents to Belfast Corporation Transport bus drivers. They were used by Xekalaki (1984) and fitted by the bivariate generalized Waring distribution.

Value

data_belfast gives the frequency distribution of accidents to Belfast Corporation Transport bus drivers.

Author(s)

Muhammad Imran

R implementation and documentation: Muhammad Imran <imranshakoor84@yahoo.com>.

References

Xekalaki, E. (1984). The bivariate generalized Waring distribution and its application to accident theory. Journal of the Royal Statistical Society: Series A (General), 147(3), 488-498.

See Also

```
data_connecticut, data_acci
```

```
x<-data_belfast
summary(x)
table (x)</pre>
```

Accidents to Connecticut general driver

The data show the frequency distribution of accidents to Connecticut general driver

Description

The function gives the frequency distribution of accidents to Connecticut general drivers.

Usage

data_connecticut

Arguments

data_connecticut

A vector of (non-negative integer) count values.

Details

The data show the frequency distribution of accidents to Connecticut general drivers. They were used by Xekalaki (1984) and fitted by the bivariate generalized Waring distribution.

Value

data_connecticut gives the frequency distribution of accidents to Connecticut general drivers.

Author(s)

Muhammad Imran

R implementation and documentation: Muhammad Imran <imranshakoor84@yahoo.com>.

References

Xekalaki, E. (1984). The bivariate generalized Waring distribution and its application to accident theory. Journal of the Royal Statistical Society: Series A (General), 147(3), 488-498.

See Also

```
data_belfast, data_acci
```

```
x<-data_connecticut
summary(x)
table (x)</pre>
```

Adult female European red mites

Twenty-five leaves were selected at random from each of six similar apple trees

Description

The function gives the number of adult female European red mites on each leaf.

Usage

data_mites

Arguments

data_mites

A vector of (non-negative integer) count values.

Details

Twenty-five leaves were selected at random from each of six similar apple trees in an orchard, and the adult female European red mites on each leaf were counted. They were used by Ross and Preece (1985) and studied by the negative binomial distribution.

Value

data_mites gives the number of adult female European red mites on each leaf.

Author(s)

Muhammad Imran

R implementation and documentation: Muhammad Imran <imranshakoor84@yahoo.com>.

References

Ross, G. J. S., & Preece, D. A. (1985). The negative binomial distribution. Journal of the Royal Statistical Society: Series D (The Statistician), 34(3), 323-335.

See Also

data_root

```
x<-data_mites
summary(x)
table (x)</pre>
```

Ammunition factory accidents

The data consist of the number of accidents of 647 female workers in an ammunition factory

Description

The function gives the number of observed count of accidents of 647 female workers in an ammunition factory.

Usage

data_ammunition

Arguments

data_ammunition

A vector of (non-negative integer) count values.

Details

The data consists of the number of accidents of 647 female workers in an ammunition factory. Recently, they were used by Zhang et al. (2016) and fitted by the zero-and-one inflated Poisson distribution.

Value

data_ammunition gives the number of observed count of accidents of 647 female workers in an ammunition factory.

Author(s)

Muhammad Imran

R implementation and documentation: Muhammad Imran <imranshakoor84@yahoo.com>.

References

Zhang, C., Tian, G. L., & Ng, K. W. (2016). Properties of the zero-and-one inflated Poisson distribution and likelihood-based inference methods. Statistics and its Interface, 9(1), 11-32.

Greenwood, M., & Yule, G. U. (1920). An inquiry into the nature of frequency distributions representative of multiple happenings with particular reference to the occurrence of multiple attacks of disease or repeated accidents. Journal of the Royal Statistical Society, 83(2), 255-279.

Bohning, D. (1998). Zero-inflated Poisson models and CA MAN: A tutorial collection of evidence. Biometrical Journal: Journal of Mathematical Methods in Biosciences, 40(7), 833-843.

See Also

data_indusacci

14 Antenatal care

Examples

```
x<-data_ammunition
summary(x)
table (x)</pre>
```

Antenatal care

The data set consists of the number of antenatal care service visit

Description

The function gives the frequency distribution of the number of antenatal care service visits of 6450 women surveyed in EDHS 2016.

Usage

data_antenatal

Arguments

data_antenatal A vector of (non-negative integer) count values.

Details

The data set consists of the number of antenatal care service visit of 6450 women surveyed in EDHS 2016. Recently, they were used by Bekalo and Kebede (2021) and fitted by the zero-inflated models for count data.

Value

data_antenatal gives the observed frequencies of the number of antenatal care service visits.

Author(s)

Muhammad Imran

R implementation and documentation: Muhammad Imran <imranshakoor84@yahoo.com>.

References

Bekalo, D. B., & Kebede, D. T. (2021). Zero-inflated models for count data: an application to the number of antenatal care service visits. Annals of Data Science, 8, 683-708.

See Also

data_teeth

Antenatal care services 15

Examples

```
x<-data_antenatal
summary(x)
table (x)</pre>
```

Antenatal care services

The data contain the frequency distribution of use of antenatal care services in 2011

Description

The function gives the frequency distribution of the use of antenatal care services in 2011 in Ethiopia.

Usage

data_anten

Arguments

data_anten

A vector of (non-negative integer) count values.

Details

The data contain the frequency distribution of the use of antenatal care services in 2011 in Ethiopia. They were used by Assefa and Tadesse (2017) and fitted by the zero-inflated negative binomial model.

Value

data_anten gives the frequency distribution of the use of antenatal care services in 2011 in Ethiopia.

Author(s)

Muhammad Imran

R implementation and documentation: Muhammad Imran <imranshakoor84@yahoo.com>.

References

Assefa, E., & Tadesse, M. (2017). Factors related to the use of antenatal care services in Ethiopia: application of the zero-inflated negative binomial model. Women & Health, 57(7), 804-821.

See Also

data_teeth

16 Apple cultivar

Examples

```
x<-data_anten
summary(x)
table (x)</pre>
```

Apple cultivar

The data show the frequency distributions of the number of roots

Description

The function gives the frequency distributions of the number of roots produced by 270 shoots of the apple cultivar Trajan.

Usage

data_root

Arguments

data_root

A vector of (non-negative integer) count values.

Details

The data show the frequency distributions of the number of roots produced by 270 shoots of the apple cultivar Trajan. They were used by Rodrigues (2003) and fitted in the context of the Bayesian analysis of zero-inflated distributions.

Value

data_root gives the frequency distributions of the number of roots.

Author(s)

Muhammad Imran

R implementation and documentation: Muhammad Imran <imranshakoor84@yahoo.com>.

References

Rodrigues, J. (2003). Bayesian analysis of zero-inflated distributions. Communications in Statistics-Theory and Methods, 32(2), 281-289.

See Also

data_mites

Argentina COVID 17

Examples

```
x<-data_root
summary(x)
table (x)</pre>
```

Argentina COVID

The data show the daily COVID-19 new cases of Argentina

Description

The function gives the daily number of COVID-19 new cases in Argentina.

Usage

```
data_argcovid
```

Arguments

data_argcovid A vector of (non-negative integer) count values.

Details

The data show the daily COVID-19 new cases of Argentina of 80 days, that is recorded from 12 March to 30 May 2020. Recently, they were used by Ibrahim and Almetwally (2021) and fitted by the discrete marshall-Olkin Lomax distribution.

Value

data_argcovid gives the daily number of COVID-19 new cases in Argentina.

Author(s)

Muhammad Imran

R implementation and documentation: Muhammad Imran <imranshakoor84@yahoo.com>.

References

Ibrahim, G. M., & Almetwally, E. M. (2021). Discrete marshall-Olkin lomax distribution application of covid-19. Biomedical journal of Scientific & Technical Research, 32(5), 2021.

See Also

```
data_COVIDd, data_Algeriacovid, data_Bosniacovid
```

```
x<-data_argcovid
summary(x)
table (x)</pre>
```

18 Asynaptic

Asynaptic

The data represent the observed number of asynaptic in onion plants

Description

The function gives the observed number of asynaptic in onion plants.

Usage

data_as1

Arguments

data_as1

A vector of (non-negative integer) count values.

Details

The data represent the observed number of asynaptic in onion plants. They were used by Jain (1959) and fitted by the negative binomial distribution.

Value

data_as1 gives the observed number of asynaptic in onion plants.

Author(s)

Muhammad Imran

R implementation and documentation: Muhammad Imran <imranshakoor84@yahoo.com>.

References

Jain, S. K. (1959). Fitting the negative binomial distribution to some data on asynaptic behavior of chromosomes. Genetica, 30(1), 108-122.

See Also

```
data_p806_7, data_p806_8, data_p806_9
```

```
x<-data_as1
summary(x)
table (x)</pre>
```

Atlantic hurricanes 19

Atlantic hurricanes

The data show the number of major Atlantic hurricanes

Description

The function gives the number of major Atlantic hurricanes.

Usage

data_hurricanes

Arguments

data_hurricanes

A vector of (non-negative integer) count values.

Details

The data show the number of major Atlantic hurricanes per year to have made landfall in the US from 1987 through 2012. Recently, they were used by Beckett et al. (2014) and fitted by the zero-inflated Poisson (ZIP) distribution.

Value

data_hurricanes gives the number of major Atlantic hurricanes per year to have made landfall in the US from 1987 through 2012.

Author(s)

Muhammad Imran

R implementation and documentation: Muhammad Imran <imranshakoor84@yahoo.com>.

References

Beckett, S., Jee, J., Ncube, T., Pompilus, S., Washington, Q., Singh, A., & Pal, N. (2014). Zero-inflated Poisson (ZIP) distribution: Parameter estimation and applications to model data from natural calamities. Involve, a Journal of Mathematics, 7(6), 751-767.

See Also

data_earthq

```
x<-data_hurricanes
summary(x)
table (x)</pre>
```

Automobile insurance Belgium 1958

The data show the number of automobile insurance third party liability portfolios of Belgium 1958

Description

The function gives the number of automobile insurance third-party liability portfolios of Belgium in 1958.

Usage

```
data_claim3
```

Arguments

data_claim3 A vector of (non-negative integer) count values.

Details

The data show the number of automobile insurance third party liability portfolios of Belgium 1958. They were used by Denuit (1997) and fitted by the zero-inflated Poisson (ZIP) distribution.

Value

data_claim3 gives the number of automobile insurance third-party liability portfolios in Belgium in 1958

Author(s)

Muhammad Imran

R implementation and documentation: Muhammad Imran <imranshakoor84@yahoo.com>.

References

Denuit, M. (1997). A new distribution of Poisson-type for the number of claims. ASTIN Bulletin: The Journal of the IAA, 27(2), 229-242.

See Also

```
data_claims, data_claim1, data_claim2
```

```
x<-data_claim3
summary(x)
table (x)</pre>
```

Automobile insurance Belgium 1975-76

The data show the number of automobile insurance third-party liability portfolios

Description

The function gives the number of automobile insurance third-party liability portfolios.

Usage

```
data_claim1
```

Arguments

data_claim1

A vector of (non-negative integer) count values.

Details

The data show the number of automobile insurance third-party liability portfolios in Belgium 1975-76. Recently, they were used by Denuit (1997) and fitted by the zero-inflated Poisson (ZIP) distribution.

Value

data_claim1 gives the number of automobile insurance third-party liability portfolios.

Author(s)

Muhammad Imran

R implementation and documentation: Muhammad Imran <imranshakoor84@yahoo.com>.

References

Denuit, M. (1997). A new distribution of Poisson-type for the number of claims. ASTIN Bulletin: The Journal of the IAA, 27(2), 229-242.

See Also

```
data_claims
```

```
x<-data_claim1
summary(x)
table (x)</pre>
```

Automobile insurance Great-Britain 1968

The data show the number of automobile insurance third party liability portfolios in Great Britain 1968

Description

The function gives the number of automobile insurance third-party liability portfolios in Great Britain 1968.

Usage

data_claim4

Arguments

data_claim4

A vector of (non-negative integer) count values.

Details

The data show the number of automobile insurance third party liability portfolios in Great Britain 1968. They were used by Denuit (1997) and fitted by the zero-inflated Poisson (ZIP) distribution.

Value

data_claim4 gives the number of automobile insurance third-party liability portfolios in Great Britain 1968.

Author(s)

Muhammad Imran

R implementation and documentation: Muhammad Imran <imranshakoor84@yahoo.com>.

References

Denuit, M. (1997). A new distribution of Poisson-type for the number of claims. ASTIN Bulletin: The Journal of the IAA, 27(2), 229-242.

See Also

```
data_claims, data_claim1, data_claim2, data_claim3
```

```
x<-data_claim4
summary(x)
table (x)</pre>
```

Automobile insurance in Belgium 1993

The data show the number of automobile insurance third-party liability portfolios in Belgium 1993

Description

The function gives the number of automobile insurance third-party liability portfolios in Belgium 1993.

Usage

```
data_claim7
```

Arguments

data_claim7 A vector of (non-negative integer) count values.

Details

The data show the number of automobile insurance third-party liability portfolios in Belgium 1993. They were used by Denuit (1997) and fitted by the zero-inflated Poisson (ZIP) distribution.

Value

data_claim7 gives the number of automobile insurance third-party liability portfolios in Belgium 1993

Author(s)

Muhammad Imran

R implementation and documentation: Muhammad Imran <imranshakoor84@yahoo.com>.

References

Denuit, M. (1997). A new distribution of Poisson-type for the number of claims. ASTIN Bulletin: The Journal of the IAA, 27(2), 229-242.

See Also

```
data_claims, data_claim1, data_claim2, data_claim3, data_claim4, data_claim5, data_claim6
```

```
x<-data_claim7
summary(x)
table (x)</pre>
```

Automobile insurance in Belgium 1994

The data show the number of automobile insurance third-party liability portfolios in Belgium 1994

Description

The function gives the number of automobile insurance third-party liability portfolios in Belgium 1994.

Usage

data_claim8

Arguments

data_claim8 A vector o

A vector of (non-negative integer) count values.

Details

The data show the number of automobile insurance third-party liability portfolios in Belgium 1994. They were used by Denuit (1997) and fitted by the zero-inflated Poisson (ZIP) distribution.

Value

data_claim8 gives the number of automobile insurance third-party liability portfolios in Belgium 1994

Author(s)

Muhammad Imran

R implementation and documentation: Muhammad Imran <imranshakoor84@yahoo.com>.

References

Denuit, M. (1997). A new distribution of Poisson-type for the number of claims. ASTIN Bulletin: The Journal of the IAA, 27(2), 229-242.

See Also

```
data_claims, data_claim1, data_claim2, data_claim3, data_claim6, data_claim7
```

```
x<-data_claim8
summary(x)
table (x)</pre>
```

Automobile insurance in Germany 1960

The data show the number of automobile insurance third-party liability portfolios in Germany 1960

Description

The function gives the number of automobile insurance third-party liability portfolios in Germany 1960.

Usage

data_claim6

Arguments

data_claim6

A vector of (non-negative integer) count values.

Details

The data show the number of automobile insurance third-party liability portfolios in Germany 1960. They were used by Denuit (1997) and fitted by the zero-inflated Poisson (ZIP) distribution.

Value

data_claim6 gives the number of automobile insurance third-party liability portfolios in Germany 1960.

Author(s)

Muhammad Imran

R implementation and documentation: Muhammad Imran <imranshakoor84@yahoo.com>.

References

Denuit, M. (1997). A new distribution of Poisson-type for the number of claims. ASTIN Bulletin: The Journal of the IAA, 27(2), 229-242.

See Also

```
data_claims, data_claim1, data_claim2, data_claim3, data_claim4, data_claim5
```

```
x<-data_claim6
summary(x)
table (x)</pre>
```

Automobile insurance in Switzerland 1961

The data show the number of automobile insurance third-party liability portfolios in Switzerland 1961

Description

The function gives the number of automobile insurance third-party liability portfolios in Switzerland 1961.

Usage

data_claim5

Arguments

data_claim5 A vector of (non-negative integer) count values.

Details

The data show the number of automobile insurance third-party liability portfolios in Switzerland 1961. They were used by Denuit (1997) and fitted by the zero-inflated Poisson (ZIP) distribution.

Value

data_claim5 gives the number of automobile insurance third-party liability portfolios in Switzerland 1961

Author(s)

Muhammad Imran

R implementation and documentation: Muhammad Imran <imranshakoor84@yahoo.com>.

References

Denuit, M. (1997). A new distribution of Poisson-type for the number of claims. ASTIN Bulletin: The Journal of the IAA, 27(2), 229-242.

See Also

```
data_claims, data_claim1, data_claim2, data_claim3, data_claim4
```

```
x<-data_claim5
summary(x)
table (x)</pre>
```

Automobile insurance Zaire 1974

The data show the number of automobile insurance third party liability portfolios in Zaire 1974

Description

The function gives the number of automobile insurance third-party liability portfolios in Zaire 1974.

Usage

```
data_claim2
```

Arguments

data_claim2

A vector of (non-negative integer) count values.

Details

The data show the number of automobile insurance third-party liability portfolios in Zaire 1974. They were used by Denuit (1997) and fitted by the zero-inflated Poisson (ZIP) distribution.

Value

data_claim2 gives the number of automobile insurance third-party liability portfolios in Zaire 1974.

Author(s)

Muhammad Imran

R implementation and documentation: Muhammad Imran <imranshakoor84@yahoo.com>.

References

Denuit, M. (1997). A new distribution of Poisson-type for the number of claims. ASTIN Bulletin: The Journal of the IAA, 27(2), 229-242.

See Also

```
data_claims, data_claim1
```

```
x<-data_claim2
summary(x)
table (x)</pre>
```

28 Birth of female children

```
Birth of female children
```

The data show the observed number of births of female children

Description

The function gives the observed number of births of female children.

Usage

```
data_bfemale
```

Arguments

```
data_bfemale A vector of (non-negative integer) count values.
```

Details

The data show the observed number of births of female children studied with mothers of parity 2. They were used by Rahman et al. (2021) and fitted by the one inflated binomial distribution.

Value

data_bfemale gives the observed number of births of female children.

Author(s)

Muhammad Imran

R implementation and documentation: Muhammad Imran <imranshakoor84@yahoo.com>.

References

Rahman, T., Hazarika, P. J., & Barman, M. P. (2021). One inflated binomial distribution and its real-life applications. Indian Journal of Science and Technology, 14(22), 1839-1854.

See Also

```
data_bmale
```

```
x<-data_bfemale
summary(x)
table (x)</pre>
```

Birth of male children 29

```
Birth of male children
```

The data show the observed number of births male children

Description

The function gives the observed number of births male children.

Usage

```
data_bmale
```

Arguments

data_bmale

A vector of (non-negative integer) count values.

Details

The data show the observed number of births male children studied with mothers of parity 2. They were used by Rahman et al. (2021) and fitted by the one inflated binomial distribution.

Value

data_bmale gives the observed number of births male children.

Author(s)

Muhammad Imran

R implementation and documentation: Muhammad Imran <imranshakoor84@yahoo.com>.

References

Rahman, T., Hazarika, P. J., & Barman, M. P. (2021). One inflated binomial distribution and its real-life applications. Indian Journal of Science and Technology, 14(22), 1839-1854.

See Also

```
data_bfemale
```

```
x<-data_bmale
summary(x)
table (x)</pre>
```

30 Boats fatalities

Boats fatalities	The data show the number of lightning fatalities in Louisiana caused by boats

Description

The function gives the number of lightning fatalities in Louisiana caused by boats.

Usage

```
data_bfatality
```

Arguments

data_bfatality A vector of (non-negative integer) count values.

Details

The data show the number of lightning fatalities in Louisiana caused by boats per year from 1995 through 2012. Recently, they were used by Beckett et al. (2014) and fitted by the zero-inflated Poisson (ZIP) distribution.

Value

data_bfatality gives the number of lightning fatalities in Louisiana caused by boats.

Author(s)

Muhammad Imran

R implementation and documentation: Muhammad Imran <imranshakoor84@yahoo.com>.

References

Beckett, S., Jee, J., Ncube, T., Pompilus, S., Washington, Q., Singh, A., & Pal, N. (2014). Zero-inflated Poisson (ZIP) distribution: Parameter estimation and applications to model data from natural calamities. Involve, a Journal of Mathematics, 7(6), 751-767.

See Also

```
data_tfatality
```

```
x<-data_bfatality
summary(x)
table (x)</pre>
```

Cancer houses 31

Cancer houses

The data show the observed number of cancer houses

Description

The function gives the observed number of cancer houses.

Usage

data_can

Arguments

data_can

A vector of (non-negative integer) count values.

Details

The data show the observed number of cancer houses. They were used by Greenwood and Yule (1920) and underlined an inquiry into the nature of frequency distributions.

Value

data_can gives the observed number of cancer houses.

Author(s)

Muhammad Imran

R implementation and documentation: Muhammad Imran <imranshakoor84@yahoo.com>.

References

Greenwood, M., & Yule, G. U. (1920). An inquiry into the nature of frequency distributions representative of multiple happenings with particular reference to the occurrence of multiple attacks of disease or of repeated accidents. Journal of the Royal Statistical Society, 83(2), 255-279.

See Also

```
data_tumor
```

```
x<-data_can
summary(x)
table (x)</pre>
```

32 Carious teeth

Carious teeth	The data show the frequency distribution of the number of carious teeth among the four deciduous molars
	teem among the jour deciduous motars

Description

The function gives the frequency distribution of the number of carious teeth among the four deciduous molars.

Usage

data_carious

Arguments

data_carious A vector of (non-negative integer) count values.

Details

The data show the frequency distribution of the number of carious teeth among the four deciduous molars. Recently, They were used by Morshedy et al. (2020) and fitted by the discrete Burr-Hatke distribution.

Value

data_carious gives the frequency distribution of the number of carious teeth among the four deciduous molars.

Author(s)

Muhammad Imran

R implementation and documentation: Muhammad Imran <imranshakoor84@yahoo.com>.

References

El-Morshedy, M., Eliwa, M. S., & Altun, E. (2020). Discrete Burr-Hatke distribution with properties, estimation methods, and regression model. IEEE Access, 8, 74359-74370.

See Also

```
data_antenatal, data_anten
```

```
x<-data_carious
summary(x)
table (x)</pre>
```

Changhua city road traffic accidents

The data show the traffic accidents in Changhua city

Description

The function gives the frequency distribution of the traffic accidents in Changhua City.

Usage

data_tacci

Arguments

data_tacci

A vector of (non-negative integer) count values.

Details

The data show the traffic accidents that were collected in Changhua city (mainly rural) locates in the central part of Taiwan from 2011-2013 by the Taiwan National Police Agency (NPA). Recently, they were used by Lukusa and Phoa (2020) and fitted by the zero-inflated Poisson model.

Value

data_tacci gives the frequency distribution of the traffic accidents in Changhua city.

Author(s)

Muhammad Imran

R implementation and documentation: Muhammad Imran <imranshakoor84@yahoo.com>.

References

Lukusa, M. T., & Phoa, F. K. H. (2020). A Horvitz-type estimation on incomplete traffic accident data analyzed via a zero-inflated Poisson model. Accident Analysis & Prevention, 134, 105235.

See Also

data_acci

```
x<-data_tacci
summary(x)
table (x)</pre>
```

Child deaths in Bundelkhand region

The data show the frequency distribution of child deaths in the Bundelkhand region of Uttar Pradesh

Description

The function gives the frequency distribution of child deaths in the Bundelkhand region of Uttar Pradesh.

Usage

data_bregion

Arguments

data_bregion A vector of (non-negative integer) count values.

Details

The data show the frequency distribution of child deaths in the Bundelkhand region of Uttar Pradesh. They were used by Singh et al. (2012) and fitted by a probabilistic study of variation in the number of child deaths.

Value

data_bregion gives the frequency distribution of child deaths in the Bundelkhand region of Uttar Pradesh.

Author(s)

Muhammad Imran

R implementation and documentation: Muhammad Imran <imranshakoor84@yahoo.com>.

References

Singh, K. K., Singh, B. P., & Singh, N. (2012). A probabilistic study of variation in number of child deaths. Journal of Rajasthan Statistical Association, 1(1), 54-67.

See Also

```
data_hregion, data_cregion, data_eregion
```

```
x<-data_bregion
summary(x)
table (x)</pre>
```

Child deaths in Central region

The data show the frequency distribution of child deaths in the Central region of Uttar Pradesh

Description

The function gives the frequency distribution of child deaths in the Central region of Uttar Pradesh.

Usage

data_cregion

Arguments

data_cregion A vector of (non-negative integer) count values.

Details

The data show the frequency distribution of child deaths in the Central region of Uttar Pradesh. They were used by Singh et al. (2012) and fitted by a probabilistic study of variation in the number of child deaths.

Value

data_cregion gives the frequency distribution of child deaths in the Central region of Uttar Pradesh.

Author(s)

Muhammad Imran

R implementation and documentation: Muhammad Imran <imranshakoor84@yahoo.com>.

References

Singh, K. K., Singh, B. P., & Singh, N. (2012). A probabilistic study of variation in number of child deaths. Journal of Rajasthan Statistical Association, 1(1), 54-67.

See Also

data_hregion

```
x<-data_cregion
summary(x)
table (x)</pre>
```

Child deaths in Eastern region

The data show the frequency distribution of child deaths in the Eastern region of Uttar Pradesh

Description

The function gives the frequency distribution of child deaths in the Eastern region of Uttar Pradesh.

Usage

data_eregion

Arguments

data_eregion A vector of (non-negative integer) count values.

Details

The data show the frequency distribution of child deaths in the Eastern region of Uttar Pradesh. They were used by Singh et al. (2012) and fitted by a probabilistic study of variation in the number of child deaths.

Value

data_eregion gives the frequency distribution of child deaths in the Eastern region of Uttar Pradesh.

Author(s)

Muhammad Imran

R implementation and documentation: Muhammad Imran <imranshakoor84@yahoo.com>.

References

Singh, K. K., Singh, B. P., & Singh, N. (2012). A probabilistic study of variation in number of child deaths. Journal of Rajasthan Statistical Association, 1(1), 54-67.

See Also

```
data_hregion, data_cregion
```

```
x<-data_eregion
summary(x)
table (x)</pre>
```

Child deaths in Hill region

The data show the frequency distribution of child deaths in the Hill region of Uttar Pradesh

Description

The function gives the frequency distribution of child deaths in the Hill region of Uttar Pradesh.

Usage

data_hregion

Arguments

data_hregion A vector of (non-negative integer) count values.

Details

The data show the frequency distribution of child deaths in the Hill region of Uttar Pradesh. They were used by Singh et al. (2012) and fitted by a probabilistic study of variation in the number of child deaths.

Value

data_hregion gives the frequency distribution of child deaths in the Hill region of Uttar Pradesh.

Author(s)

Muhammad Imran

R implementation and documentation: Muhammad Imran <imranshakoor84@yahoo.com>.

References

Singh, K. K., Singh, B. P., & Singh, N. (2012). A probabilistic study of variation in number of child deaths. Journal of Rajasthan Statistical Association, 1(1), 54-67.

See Also

```
data_argcovid, data_inj2, data_inj3
```

```
x<-data_hregion
summary(x)
table (x)</pre>
```

Child deaths in rural female

The data show the frequency distribution of child deaths in rural females of Uttar Pradesh

Description

The function gives the frequency distribution of child deaths in rural females of Uttar Pradesh.

Usage

```
data_rfemale
```

Arguments

data_rfemale A vector of (non-negative integer) count values.

Details

The data show the frequency distribution of child deaths in a rural female of Uttar Pradesh. They were used by Singh et al. (2012) and fitted by a probabilistic study of variation in the number of child deaths.

Value

data_rfemale gives the frequency distribution of child deaths in a rural female of Uttar Pradesh.

Author(s)

Muhammad Imran

R implementation and documentation: Muhammad Imran <imranshakoor84@yahoo.com>.

References

Singh, K. K., Singh, B. P., & Singh, N. (2012). A probabilistic study of variation in number of child deaths. Journal of Rajasthan Statistical Association, 1(1), 54-67.

See Also

```
data_ufemale
```

```
x<-data_rfemale
summary(x)
table (x)</pre>
```

Child deaths in the age group 30-39

The data show the frequency distribution of child deaths in the age group 30-39 in Uttar Pradesh

Description

The function gives the frequency distribution of child deaths in the age group 30-39 of Uttar Pradesh.

Usage

```
data_age_30
```

Arguments

data_age_30 A vector of (non-negative integer) count values.

Details

The data show the frequency distribution of child deaths in the age group 30-39 of Uttar Pradesh. They were used by Singh et al. (2012) and fitted by a probabilistic study of variation in the number of child deaths.

Value

data_age_30 gives the frequency distribution of child deaths in the age group 30-39 of Uttar Pradesh.

Author(s)

Muhammad Imran

R implementation and documentation: Muhammad Imran <imranshakoor84@yahoo.com>.

References

Singh, K. K., Singh, B. P., & Singh, N. (2012). A probabilistic study of variation in number of child deaths. Journal of Rajasthan Statistical Association, 1(1), 54-67.

See Also

```
data_age_40, data_cregion, data_eregion
```

```
x<-data_age_30
summary(x)
table (x)</pre>
```

Child deaths in the age group 40-49

The data show the frequency distribution of child deaths in the age group 40-49 of Uttar Pradesh

Description

The function gives the frequency distribution of child deaths in the age group 40-49 of Uttar Pradesh.

Usage

```
data_age_40
```

Arguments

data_age_40 A vector of (non-negative integer) count values.

Details

The data show the frequency distribution of child deaths in the age group 40-49 of Uttar Pradesh. They were used by Singh et al. (2012) and fitted by a probabilistic study of variation in the number of child deaths.

Value

data_age_40 gives the frequency distribution of child deaths in the age group 40-49 of Uttar Pradesh.

Author(s)

Muhammad Imran

R implementation and documentation: Muhammad Imran <imranshakoor84@yahoo.com>.

References

Singh, K. K., Singh, B. P., & Singh, N. (2012). A probabilistic study of variation in number of child deaths. Journal of Rajasthan Statistical Association, 1(1), 54-67.

See Also

```
data_age_30
```

```
x<-data_age_40
summary(x)
table (x)</pre>
```

Child deaths in urban female

The data show the frequency distribution of child deaths in urban females of Uttar Pradesh

Description

The function gives the frequency distribution of child deaths in urban females of Uttar Pradesh.

Usage

```
data_ufemale
```

Arguments

data_ufemale A vector of (non-negative integer) count values.

Details

The data show the frequency distribution of child deaths in urban females of Uttar Pradesh. They were used by Singh et al. (2012) and fitted by a probabilistic study of variation in the number of child deaths.

Value

data_ufemale gives the frequency distribution of child deaths in urban females of Uttar Pradesh.

Author(s)

Muhammad Imran

R implementation and documentation: Muhammad Imran <imranshakoor84@yahoo.com>.

References

Singh, K. K., Singh, B. P., & Singh, N. (2012). A probabilistic study of variation in number of child deaths. Journal of Rajasthan Statistical Association, 1(1), 54-67.

See Also

```
data_rfemale
```

```
x<-data_ufemale
summary(x)
table (x)</pre>
```

Child deaths in Uttar Pradesh

The data show the frequency distribution of child deaths in Uttar Pradesh

Description

The function gives the frequency distribution of child deaths in Uttar Pradesh.

Usage

data_uttar

Arguments

data_uttar

A vector of (non-negative integer) count values.

Details

The data show the frequency distribution of child deaths in Uttar Pradesh. They were used by Singh et al. (2012) and fitted by a probabilistic study of variation in the number of child deaths.

Value

data_uttar gives the frequency distribution of child deaths in Uttar Pradesh.

Author(s)

Muhammad Imran

R implementation and documentation: Muhammad Imran <imranshakoor84@yahoo.com>.

References

Singh, K. K., Singh, B. P., & Singh, N. (2012). A probabilistic study of variation in number of child deaths. Journal of Rajasthan Statistical Association, 1(1), 54-67.

See Also

```
data_ufemale, data_rfemale
```

```
x<-data_uttar
summary(x)
table (x)</pre>
```

Child deaths in Western region

The data show the frequency distribution of child deaths in the Western region of Uttar Pradesh

Description

The function gives the frequency distribution of child deaths in the Western region of Uttar Pradesh.

Usage

data_wregion

Arguments

data_wregion A vector of (non-negative integer) count values.

Details

The data show the frequency distribution of child deaths in the Western region of Uttar Pradesh. They were used by Singh et al. (2012) and fitted by a probabilistic study of variation in the number of child deaths.

Value

data_wregion gives the frequency distribution of child deaths in the Western region of Uttar Pradesh.

Author(s)

Muhammad Imran

R implementation and documentation: Muhammad Imran <imranshakoor84@yahoo.com>.

References

Singh, K. K., Singh, B. P., & Singh, N. (2012). A probabilistic study of variation in number of child deaths. Journal of Rajasthan Statistical Association, 1(1), 54-67.

See Also

data_hregion

```
x<-data_wregion
summary(x)
table (x)</pre>
```

Child per woman

Child per woman

The data show the observed number of children per woman

Description

The function gives the observed number of children per woman.

Usage

```
data_child
```

Arguments

data_child

A vector of (non-negative integer) count values.

Details

The data show the observed number of children per woman. They were used by Melkersson and Rooth (2000) and fitted by the inflated count data models.

Value

data_child gives the observed number of children per woman.

Author(s)

Muhammad Imran

R implementation and documentation: Muhammad Imran <imranshakoor84@yahoo.com>.

References

Melkersson, M., & Rooth, D. O. (2000). Modeling female fertility using inflated count data models. Journal of Population Economics, 13, 189-203.

See Also

```
data_bihar, data_orissa
```

```
x<-data_child
summary(x)
table (x)</pre>
```

Chinese vehicle insurance 45

Chinese vehicle insurance

The data show the frequency distribution of claims of the third liability vehicle insurance in a Chinese insurance company

Description

The function gives the frequency distribution of claims of the third liability vehicle insurance in a Chinese insurance company.

Usage

data_vinsurance

Arguments

data_vinsurance

A vector of (non-negative integer) count values.

Details

The data show the frequency distribution of claims of the third liability vehicle insurance in a Chinese insurance company. They were used by Wang (2011) and fitted by the one mixed negative binomial distribution.

Value

data_vinsurance gives the frequency distribution of claims of the third liability vehicle insurance in a Chinese insurance company.

Author(s)

Muhammad Imran

R implementation and documentation: Muhammad Imran <imranshakoor84@yahoo.com>.

References

Wang, Z. (2011). One mixed negative binomial distribution with the application. Journal of Statistical Planning and Inference, 141(3), 1153-1160.

See Also

```
data_claims, data_claim1, data_claim2
```

```
x<-data_vinsurance
summary(x)
table (x)</pre>
```

46 Chromatid aberrations

Description

The function gives the frequency distribution of chromatid aberrations in human leukocytes.

Usage

data_chromatid

Arguments

data_chromatid A vector of (non-negative integer) count values.

Details

The data show the frequency distribution of chromatid aberrations in human leukocytes. They were used by Para and Jan (2016) and fitted by the discrete version of the log-logistic distribution.

Value

data_chromatid gives the frequency distribution of chromatid aberrations in human leukocytes.

Author(s)

Muhammad Imran

R implementation and documentation: Muhammad Imran <imranshakoor84@yahoo.com>.

References

Para, B. A., & Jan, T. R. (2016). Discrete version of log-logistic distribution and its applications in genetics. International Journal of Mathematics and Mathematical Sciences, 14(4), 407-422.

```
x<-data_chromatid
summary(x)
table (x)</pre>
```

Chromosome data 47

Chromosome data	The data show the number of chromosome pairing at I metaphase in three plants of Secale vavilovii

Description

The function gives the number of chromosome pairing count data at I metaphase in three plants of Secale vavilovii.

Usage

```
data_p806_8
```

Arguments

data_p806_8

A vector of (non-negative integer) count values.

Details

The data show the number of chromosome pairing at I metaphase in three plants of Secale vavilovii. They were used by Jain (1959) and fitted by the negative binomial distribution.

Value

data_p806_8 gives the observed number of chromosome pairing count data at I metaphase in three plants of Secale vavilovii.

Author(s)

Muhammad Imran

R implementation and documentation: Muhammad Imran <imranshakoor84@yahoo.com>.

References

Jain, S. K. (1959). Fitting the negative binomial distribution to some data on asynaptic behaviour of chromosomes. Genetica, 30(1), 108-122.

See Also

```
data_p806_7, data_p806_9
```

```
x<-data_p806_8
summary(x)
table (x)</pre>
```

48 Chromosome pairing

Chromosome pairing

The number of chromosome pairing at I metaphase in three plants of Secale vavilovii

Description

The function gives the number of chromosome pairing count data at I metaphase in three plants of Secale vavilovii.

Usage

```
data_p806_7
```

Arguments

data_p806_7

A vector of (non-negative integer) count values.

Details

The data show the number of chromosome pairing count data at I metaphase in three plants of Secale vavilovii. They were used by Jain (1959) and fitted by the negative binomial distribution.

Value

data_p806_7 gives the number of chromosome pairing count data at I metaphase in three plants of Secale vavilovii.

Author(s)

Muhammad Imran

R implementation and documentation: Muhammad Imran <imranshakoor84@yahoo.com>.

References

Jain, S. K. (1959). Fitting the negative binomial distribution to some data on asynaptic behavior of chromosomes. Genetica, 30(1), 108-122.

See Also

```
data_p806_8, data_p806_9
```

```
x<-data_p806_7
summary(x)
table (x)</pre>
```

Chromosome pairing at I metaphase

The data represent the number of chromosome pairing at I metaphase in three plants of Secale vavilovii

Description

The function gives the number of chromosome pairing count data at I metaphase in three plants of Secale vavilovii.

Usage

```
data_p806_9
```

Arguments

data_p806_9 A vector of (non-negative integer) count values.

Details

The data represent the number of chromosome pairing at I metaphase in three plants of Secale vavilovii. They were used by Jain (1959) and fitted by the negative binomial distribution.

Value

data_p806_9 provides the observed number of chromosome pairing count data at I metaphase in three plants of Secale vavilovii.

Author(s)

Muhammad Imran

R implementation and documentation: Muhammad Imran <imranshakoor84@yahoo.com>.

References

Jain, S. K. (1959). Fitting the negative binomial distribution to some data on asynaptic behaviour of chromosomes. Genetica, 30(1), 108-122.

See Also

```
data_p806_7, data_p806_8
```

```
x<-data_p806_9
summary(x)
table (x)</pre>
```

50 Claims per accident

Claims per accident

The data show the number of claims per accident

Description

The function gives the number of claims per accident.

Usage

data_aclaim

Arguments

data_aclaim

A vector of (non-negative integer) count values.

Details

The data show the number of claims per accident. They were used by Willmot (1987) and fitted by the Poisson-inverse Gaussian distribution.

Value

data_aclaim gives the number of claims per accident.

Author(s)

Muhammad Imran

R implementation and documentation: Muhammad Imran <imranshakoor84@yahoo.com>.

References

Willmot, G. E. (1987). The Poisson-inverse Gaussian distribution is an alternative to the negative binomial. Scandinavian Actuarial Journal, 1987(3-4), 113-127.

See Also

```
data_claims, data_claim1, data_claim2, data_claim3
```

```
x<-data_aclaim
summary(x)
table (x)</pre>
```

Covid-19 Algeria 51

Covid-19 Algeria

The data show the daily newly reported COVID-19 cases

Description

The function gives the daily newly reported COVID-19 cases.

Usage

```
data_Algeriacovid
```

Arguments

```
data_Algeriacovid
```

A vector of (non-negative integer) count values.

Details

The data show the daily newly reported COVID-19 cases from Algeria in East Africa, recorded between 13 June 2022 to 3 October 2022. They were used by Shibu et al. (2023) and fitted by the zero-truncated Katz distribution.

Value

data_Algeriacovid gives the daily newly reported COVID-19 cases.

Author(s)

Muhammad Imran

R implementation and documentation: Muhammad Imran <imranshakoor84@yahoo.com>.

References

Shibu, D. S., Chesneau, C., Monisha, M., Maya, R., & Irshad, M. R. (2023). A novel zero-truncated Katz distribution by the Lagrange expansion of the second kind with associated inferences. Analytics, 2(2), 463-484.

See Also

```
data_argcovid, data_Bosniacovid
```

```
x<-data_Algeriacovid
summary(x)
table (x)</pre>
```

52 Covid-19 Bosnia

Covid-19 Bosnia

The data show the daily reported COVID-19 death cases

Description

The function gives the daily reported COVID-19 death cases.

Usage

data_Bosniacovid

Arguments

data_Bosniacovid

A vector of (non-negative integer) count values.

Details

The data show the daily reported COVID-19 death cases from Bosnia and Herzegovina in Europe, recorded between 2 August 2020 to 28 June 2021. They were used by Shibu et al. (2023) and fitted by the zero truncated Katz distribution.

Value

data_Bosniacovid gives the daily reported COVID-19 death cases.

Author(s)

Muhammad Imran

R implementation and documentation: Muhammad Imran <imranshakoor84@yahoo.com>.

References

Shibu, D. S., Chesneau, C., Monisha, M., Maya, R., & Irshad, M. R. (2023). A novel zero truncated Katz distribution by the Lagrange expansion of the second kind with associated inferences. Analytics, 2(2), 463-484.

See Also

```
data_argcovid, data_Algeriacovid
```

```
x<-data_Bosniacovid
summary(x)
table (x)</pre>
```

COVID-19 deaths Luxembourg

The data show the observed number of COVID-19 daily new deaths in Luxembourg in 2020

Description

The function gives the observed number of COVID-19 daily new deaths in Luxembourg in 2020.

Usage

data_COVIDd

Arguments

data_COVIDd

A vector of (non-negative integer) count values.

Details

The data show the observed number of COVID-19 daily new deaths in Luxembourg in 2020. Recently, they were used by Junnumtuam et al. (2022) and fitted by the zero and one inflated cosine geometric models.

Value

data_COVIDd gives the observed number of COVID-19 daily new deaths in Luxembourg in 2020.

Author(s)

Muhammad Imran

R implementation and documentation: Muhammad Imran <imranshakoor84@yahoo.com>.

References

Junnumtuam, S., Niwitpong, S. A., & Niwitpong, S. (2022). A zero-and-one inflated cosine geometric distribution and its application. Mathematics, 10(21), 4012.

See Also

```
data_argcovid, data_Algeriacovid, data_Bosniacovid
```

```
x<-data_COVIDd
summary(x)
table (x)</pre>
```

54 Criminal act

Criminal act	The data set is from crime sociology consisting of a sample of 4301 people with deviating behavior

Description

The function gives a sample of 4301 people with deviating behavior.

Usage

```
data_crime
```

Arguments

data_crime

A vector of (non-negative integer) count values.

Details

The data set is from crime sociology consisting of a sample of 4301 people with deviating behavior. Recently, it was used by Zhang et al. (2016) and fitted by the zero-and-one inflated Poisson distribution.

Value

data_crime gives a sample of 4301 people with deviating behavior.

Author(s)

Muhammad Imran

R implementation and documentation: Muhammad Imran <imranshakoor84@yahoo.com>.

References

Zhang, C., Tian, G. L., & Ng, K. W. (2016). Properties of the zero-and-one inflated Poisson distribution and likelihood-based inference methods. Statistics and its Interface, 9(1), 11-32.

```
x<-data_crime
summary(x)
table (x)</pre>
```

Cysts of kidneys 55

cysts of kidneys The data show the frequency distribution of cysts of kidneys using steroids	Cysts of kidneys	The data show the frequency distribution of cysts of kidneys using steroids	
---	------------------	---	--

Description

The function gives the frequency distribution of cysts of kidneys using steroids.

Usage

```
data_cysts
```

Arguments

data_cysts

A vector of (non-negative integer) count values.

Details

The data show the frequency distribution of cysts of kidneys using steroids. Recently, they were used by Morshedy et al. (2020) and fitted by the discrete Burr-Hatke distribution.

Value

data_cysts gives the frequency distribution of cysts of kidneys using steroids.

Author(s)

Muhammad Imran

R implementation and documentation: Muhammad Imran <imranshakoor84@yahoo.com>.

References

El-Morshedy, M., Eliwa, M. S., & Altun, E. (2020). Discrete Burr-Hatke distribution with properties, estimation methods, and regression model. IEEE Access, 8, 74359-74370.

Para, B. A., & Jan, T. R. (2016). On discrete three-parameter Burr type XII and discrete Lomax distributions and their applications to model count data from medical science. Biometrics and Biostatistics International Journal, 4(2), 1-15.

See Also

```
data_can, data_pap
```

```
x<-data_cysts
summary(x)
table (x)</pre>
```

56 Death from horse-kicks

Death from horse-kicks

A data set of size n = 280 concerning the number of deaths from horse-kicks

Description

The function gives the number of deaths from horse-kicks.

Usage

data_deaths

Arguments

data_deaths

A vector of (non-negative integer) count values.

Details

A data set of size n = 280 concerns the number of deaths from horse-kicks. It was used by Preece et al. (1988) and fitted by the generalized linear model.

Value

data_deaths gives the number of deaths from horse-kicks.

Author(s)

Muhammad Imran

R implementation and documentation: Muhammad Imran <imranshakoor84@yahoo.com>.

References

Preece, D. A., Ross, G. J. S., & Kirby, S. P. J. (1988). Bortkewitsch's horse-kicks and the generalized linear model. Journal of the Royal Statistical Society: Series D (The Statistician), 37(3), 313-318.

See Also

data_edeath

```
x<-data_deaths
summary(x)
table (x)</pre>
```

Death notice 57

years of age or older	Death notice	The data show the number of death notices for women who are 80 years of age or older
-----------------------	--------------	--

Description

The function gives the number of death notices for women who are 80 years of age or older.

Usage

data_death

Arguments

data_death

A vector of (non-negative integer) count values.

Details

The data show the number of death notices for women who are 80 years of age or older, appearing in the London Times on each day for three consecutive years. Recently, they were used by Zhang et al. (2016) and fitted by the zero-and-one inflated Poisson distribution.

Value

data_death gives the number of death notices for women who are 80 years of age or older.

Author(s)

Muhammad Imran

R implementation and documentation: Muhammad Imran <imranshakoor84@yahoo.com>.

References

Zhang, C., Tian, G. L., & Ng, K. W. (2016). Properties of the zero-and-one inflated Poisson distribution and likelihood-based inference methods. Statistics and its Interface, 9(1), 11-32.

Gupta, P. L., Gupta, R. C., & Tripathi, R. C. (1996). Analysis of zero-adjusted count data. Computational Statistics & Data Analysis, 23(2), 207-218.

Hasselblad, V. (1969). Estimation of finite mixtures of distributions from the exponential family. Journal of the American Statistical Association, 64(328), 1459-1471.

Schilling, W. (1947). A frequency distribution is represented as the sum of two Poisson distributions. Journal of the American Statistical Association, 42(239), 407-424.

```
x<-data_death
summary(x)
table (x)</pre>
```

58 Dentist visits

Dentist visits	The data set represents a panel data from Swedish Level of Living Surveys

Description

The function gives the number of dentists visiting data from Swedish Level of Living Surveys.

Usage

data_dentist

Arguments

data_dentist A vector of (non-negative integer) count values.

Details

The data set represents a panel data from Swedish Level of Living Surveys in 1974 and 1991. To examine the long-term impact of frequent dental checkups during adolescents and childhood. Recently, it was used by Zhang (2016) and fitted by the zero-and-one inflated Poisson distribution.

Value

data_dentist gives the number of dentists visiting data from Swedish Level of Living Surveys.

Author(s)

Muhammad Imran

R implementation and documentation: Muhammad Imran <imranshakoor84@yahoo.com>.

References

Zhang, C., Tian, G. L., & Ng, K. W. (2016). Properties of the zero-and-one inflated Poisson distribution and likelihood-based inference methods. Statistics and its Interface, 9(1), 11-32.

Erikson, R., & Åberg, R. (Eds.) (1987). Welfare in transition: A survey of living conditions in Sweden, 1968-1981. Oxford University Press.

See Also

data_teeth

```
x<-data_dentist
summary(x)
table (x)</pre>
```

Fatalities by a tree 59

Fatalities by a tree The data show the number of lightning fatalities in Louisiana caused by a tree

Description

The function gives the number of lightning fatalities in Louisiana caused by a tree.

Usage

```
data_tfatality
```

Arguments

data_tfatality A vector of (non-negative integer) count values.

Details

The data show the number of lightning fatalities in Louisiana caused by a tree per year from 1995 through 2012. Recently, they were used by Beckett et al. (2014) and fitted by the zero-inflated Poisson (ZIP) distribution.

Value

data_tfatality gives the number of lightning fatalities in Louisiana caused by a tree.

Author(s)

Muhammad Imran

R implementation and documentation: Muhammad Imran <imranshakoor84@yahoo.com>.

References

Beckett, S., Jee, J., Ncube, T., Pompilus, S., Washington, Q., Singh, A., & Pal, N. (2014). Zero-inflated Poisson (ZIP) distribution: Parameter estimation and applications to model data from natural calamities. Involve, a Journal of Mathematics, 7(6), 751-767.

See Also

```
data_gfatality
```

```
x<-data_tfatality
summary(x)
table (x)</pre>
```

60 Fatalities in the open

Fatalities in the open

The data show the number of lightning fatalities in Louisiana caused by out in the open

Description

The function gives the number of lightning fatalities in Louisiana caused out in the open.

Usage

```
data_ofatality
```

Arguments

data_ofatality A vector of (non-negative integer) count values.

Details

The data show the number of lightning fatalities in Louisiana caused out in the open per year from 1995 through 2012. They were used by Beckett et al. (2014) and fitted by the zero-inflated Poisson (ZIP) distribution.

Value

data_ofatality gives the number of lightning fatalities in Louisiana caused by out in the open.

Author(s)

Muhammad Imran

R implementation and documentation: Muhammad Imran <imranshakoor84@yahoo.com>.

References

Beckett, S., Jee, J., Ncube, T., Pompilus, S., Washington, Q., Singh, A., & Pal, N. (2014). Zero-inflated Poisson (ZIP) distribution: Parameter estimation and applications to model data from natural calamities. Involve, a Journal of Mathematics, 7(6), 751-767.

See Also

```
data_bfatality
```

```
x<-data_ofatality
summary(x)
table (x)</pre>
```

Fatalities on golf courses

The data show the number of lightning fatalities in Louisiana caused by golf courses

Description

The function gives the number of lightning fatalities in Louisiana caused by golf courses.

Usage

```
data_gfatality
```

Arguments

data_gfatality A vector of (non-negative integer) count values.

Details

The data show the number of lightning fatalities in Louisiana caused by golf courses per year from 1995 through 2012. Recently, they were used by Beckett et al. (2014) and fitted by the zero-inflated Poisson (ZIP) distribution.

Value

data_gfatality gives the number of lightning fatalities in Louisiana caused by golf courses.

Author(s)

Muhammad Imran

R implementation and documentation: Muhammad Imran <imranshakoor84@yahoo.com>.

References

Beckett, S., Jee, J., Ncube, T., Pompilus, S., Washington, Q., Singh, A., & Pal, N. (2014). Zero-inflated Poisson (ZIP) distribution: Parameter estimation and applications to model data from natural calamities. Involve, a Journal of Mathematics, 7(6), 751-767.

See Also

```
data_bfatality
```

```
x<-data_gfatality
summary(x)
table (x)</pre>
```

62 Female childbirth in Bihar

Female childbirth in Bihar

The data show the frequency distribution of female childbirth in Bihar

Description

The function gives the frequency distribution of female childbirth in Bihar.

Usage

data_bihar

Arguments

data_bihar

A vector of (non-negative integer) count values.

Details

The data show the frequency distribution of female childbirth in Bihar. Recently, they were used by Kumar (2020) and fitted by a probability model for the number of female childbirths.

Value

data_bihar gives the frequency distribution of female childbirth in Bihar.

Author(s)

Muhammad Imran

 $R\ implementation\ and\ documentation:\ Muhammad\ Imran < imranshakoor84@yahoo.com>.$

References

Kumar, A. (2020). A probability model for the number of female childbirths. Journal of Statistics Applications & Probability. 9(3), 525-534.

See Also

```
data_ufemale, data_rfemale
```

```
x<-data_bihar
summary(x)
table (x)</pre>
```

Female childbirth in Orissa 63

```
Female childbirth in Orissa
```

The data show the frequency distribution of female childbirth in Orissa

Description

The function gives the frequency distribution of female childbirth in Orissa.

Usage

```
data_orissa
```

Arguments

data_orissa

A vector of (non-negative integer) count values.

Details

The data show the frequency distribution of female childbirth in Orissa. Recently, they were used by Kumar (2020) and fitted by a probability model for the number of female childbirths.

Value

data_orissa gives the frequency distribution of female childbirth in Orissa.

Author(s)

Muhammad Imran

 $R\ implementation\ and\ documentation:\ Muhammad\ Imran < imranshakoor84@yahoo.com>.$

References

Kumar, A. (2020). A probability model for the number of female childbirths. Journal of Statistics Applications & Probability, 9 (3), 525-534.

See Also

```
data_bihar
```

```
x<-data_orissa
summary(x)
table (x)</pre>
```

Female childbirth in Rajasthan

The data show the frequency distribution of female childbirth in Rajasthan

Description

The function gives the frequency distribution of female childbirth in Rajasthan.

Usage

data_rajasthan

Arguments

data_rajasthan A vector of (non-negative integer) count values.

Details

The data show the frequency distribution of female childbirth in Rajasthan. Recently, they were used by Kumar (2020) and fitted by a probability model for the number of female childbirths.

Value

data_rajasthan gives the frequency distribution of female childbirth in Rajasthan.

Author(s)

Muhammad Imran

R implementation and documentation: Muhammad Imran <imranshakoor84@yahoo.com>.

References

Kumar, A. (2020). A probability model for the number of female childbirths. Journal of Statistics Applications & Probability. 9(3), 525-534.

See Also

```
data_bihar, data_orissa
```

```
x<-data_rajasthan
summary(x)
table (x)</pre>
```

Female childbirth in West Bengal

The data show the frequency distribution of female childbirth in West Bengal

Description

The function gives the frequency distribution of female childbirth in West Bengal.

Usage

data_bengal

Arguments

data_bengal A vector of (non-negative integer) count values.

Details

The data show the frequency distribution of female childbirth in West Bengal. Recently, they were used by Kumar (2020) and fitted by a probability model for the number of female childbirths.

Value

data_bengal gives the frequency distribution of female childbirth in West Bengal.

Author(s)

Muhammad Imran

R implementation and documentation: Muhammad Imran <imranshakoor84@yahoo.com>.

References

Kumar, A. (2020). A probability model for the number of female childbirths. Journal of Statistics Applications & Probability. 9 (3), 525-534.

See Also

```
data_bihar, data_orissa
```

```
x<-data_bengal
summary(x)
table (x)</pre>
```

66 Fetal movements

Fetal movements

The data represent the number of movements made by a fetal lamb

Description

The function gives the number of movements made by a fetal lamb.

Usage

data_fetalm

Arguments

data_fetalm

A vector of (non-negative integer) count values.

Details

The data correspond to a certain order of counts in a study of fetal lambs' breathing and movement patterns to look at potential changes in the amount and pattern of fetal activity throughout the last two-thirds of gestation. Recently, they were used by Zhang et al. (2016) and fitted by the zero-and-one inflated Poisson distribution.

Value

data_fetalm gives many movements made by a fetus during the last two-thirds of gestation.

Author(s)

Muhammad Imran

R implementation and documentation: Muhammad Imran <imranshakoor84@yahoo.com>.

References

Zhang, C., Tian, G. L., & Ng, K. W. (2016). Properties of the zero-and-one inflated Poisson distribution and likelihood-based inference methods. Statistics and its Interface, 9(1), 11-32.

Leroux, B. G., & Puterman, M. L. (1992). Maximum penalized likelihood estimation for independent and Markov-dependent mixture models. Biometrics, 545-558.

```
x<-data_fetalm
summary(x)
table (x)</pre>
```

High explosive shell manufacture

The data show the observed number of high explosive shell manufacture accidents

Description

The function gives the observed number of high explosive shell manufacture accidents.

Usage

data_accid

Arguments

data_accid

A vector of (non-negative integer) count values.

Details

The data show the observed number of high explosive shell manufacture accidents. They were used by Greenwood and Yule (1920) and underlined an inquiry into the nature of frequency distributions.

Value

data_accid gives the observed number of High explosive shell manufacture accidents.

Author(s)

Muhammad Imran

R implementation and documentation: Muhammad Imran <imranshakoor84@yahoo.com>.

References

Greenwood, M., & Yule, G. U. (1920). An inquiry into the nature of frequency distributions representative of multiple happenings with particular reference to the occurrence of multiple attacks of disease or of repeated accidents. Journal of the Royal Statistical Society, 83(2), 255-279.

See Also

data_accide

```
x<-data_accid
summary(x)
table (x)</pre>
```

68 Horse-kicks deaths

Horse-kicks deaths A data set of size n = 200 concerning the number of deaths due to horse-kicks

Description

The function gives the number of deaths due to horse kicks excluding crops G, I, VI, and XI.

Usage

data_edeath

Arguments

data_edeath

A vector of (non-negative integer) count values.

Details

A data set of size n = 200 concerning the number of deaths due to horse-kicks excluding crops G, I, VI, and XI. It was used by Preece et al. (1988) and studied by the Bortkewitsch's horse-kicks and the generalized linear model.

Value

data_edeath gives the number of deaths from horse-kicks excluding crops G, I, VI, and XI.

Author(s)

Muhammad Imran

R implementation and documentation: Muhammad Imran <imranshakoor84@yahoo.com>.

References

Preece, D. A., Ross, G. J. S., & Kirby, S. P. J. (1988). Bortkewitsch's horse-kicks and the generalized linear model. Journal of the Royal Statistical Society: Series D (The Statistician), 37(3), 313-318.

See Also

data_deaths

```
x<-data_edeath
summary(x)
table (x)</pre>
```

Hospital stays 69

Hospital stays

The data show the frequency distribution of length of hospital stay

Description

The function gives the frequency distribution of the length of hospital stay.

Usage

data_stays

Arguments

data_stays

A vector of (non-negative integer) count values.

Details

The data set consists of the number of hospital stays by United States residents aged 66 and over. Recently, it was used by Aryuyuen et al. (2014) and fitted by the zero-inflated negative binomial-generalized exponential distribution.

Value

data_stays gives the observed frequencies of the number of hospital stays by United States residents aged 66 and over.

Author(s)

Muhammad Imran

R implementation and documentation: Muhammad Imran <imranshakoor84@yahoo.com>.

References

Aryuyuen, S., Bodhisuwan, W., & Supapakorn, T. (2014). Zero-inflated negative binomial-generalized exponential distribution and its applications. Songklanakarin Journal of Science and Technology, 36(4), 483-91.

Flynn, M., & Francis, L. A. (2009). More flexible GLMs zero-inflated models and hybrid models. Casualty Actuarial Society, 2009, 148-224.

```
x<-data_stays
summary(x)
table (x)</pre>
```

70 Household size

Household size

The data show the observed number of Iranian household sizes

Description

The function gives the observed number of Iranian household sizes.

Usage

data_household

Arguments

data_household A vector of (non-negative integer) count values.

Details

A data set that comes from a pseudo panel constructed from information from the 2010-2011 Household Expenditure and Income Survey, which includes details on household size but excludes the head of the family. Therefore, given these data, 0 indicates that there is just one resident of the house. They were used by Mersad et al. (2015) and fitted by the zero-inflated models.

Value

data_household gives the observed number of Iranian household size.

Author(s)

Muhammad Imran

R implementation and documentation: Muhammad Imran <imranshakoor84@yahoo.com>.

References

Mersad, M., Ganjali, M., & Rivaz, F. (2015). Some extensions of zero-inflated models and Bayesian tests for them. Journal of Statistical Computation and Simulation, 85(18), 3792-3810.

Examples

x<-data_household
summary(x)
table (x)</pre>

Industrial accidents 71

Industrial accidents The data show the observed number of industrial accidents

Description

The function gives the observed number of industrial accidents.

Usage

data_indusacci

Arguments

data_indusacci A vector of (non-negative integer) count values.

Details

The data show the observed number of industrial accidents. They were used by Greenwood and Yule (1920) and underlined an inquiry into the nature of frequency distributions.

Value

data_indusacci gives the observed number of industrial accidents.

Author(s)

Muhammad Imran

R implementation and documentation: Muhammad Imran <imranshakoor84@yahoo.com>.

References

Greenwood, M., & Yule, G. U. (1920). An inquiry into the nature of frequency distributions representative of multiple happenings with particular reference to the occurrence of multiple attacks of disease or of repeated accidents. Journal of the Royal Statistical Society, 83(2), 255-279.

See Also

data_machinist

```
x<-data_indusacci
summary(x)
table (x)</pre>
```

London underground station

The data show the observed number of females in 100 queues of length 10 in a London underground station

Description

The function gives the observed number of females in 100 queues.

Usage

data_queue

Arguments

data_queue

A vector of (non-negative integer) count values.

Details

The data show the observed number of females in 100 queues of length 10 in a London underground station. They were used by Conigliani et al. (2000) and fitted by the zero-inflated models.

Value

data_queue gives the observed number of females in 100 queues.

Author(s)

Muhammad Imran

R implementation and documentation: Muhammad Imran <imranshakoor84@yahoo.com>.

References

Conigliani, C., Castro, J. I., & O'Hagan, A. (2000). Bayesian assessment of goodness of fit against nonparametric alternatives. Canadian Journal of Statistics, 28(2), 327-342.

See Also

data_hurricanes

```
x<-data_queue
summary(x)
table (x)</pre>
```

Lost shoes 73

Lost shoes The a gate	lata show the frequancy distribution of lost shoes at a Museum
-----------------------	--

Description

The function gives the frequancy distribution of lost shoes at a Museum gate.

Usage

```
data_lost
```

Arguments

data_lost

A vector of (non-negative integer) count values.

Details

The data show the frequency distribution of lost shoes at a Museum gate. They were used by Chandra and Ghosh (2013) and fitted by the generalized Poisson distribution.

Value

data_lost gives the frequancy distribution of lost shoes at a Museum gate.

Author(s)

Muhammad Imran

R implementation and documentation: Muhammad Imran <imranshakoor84@yahoo.com>.

References

Chandra, N. K., Roy, D., & Ghosh, T. (2013). A generalized Poisson distribution. Communications in Statistics-Theory and Methods, 42(15), 2786-2797.

```
x<-data_lost
summary(x)
table (x)</pre>
```

74 Machinists accidents

Machinists accidents The data show the observed number of machinists accidents six months study

Description

The function gives the observed number of machinist accidents in six months of study.

Usage

data_machinist

Arguments

data_machinist A vector of (non-negative integer) count values.

Details

The data show the observed number of machinists accidents six months study. They were used by Greenwood and Yule (1920) and underlined an inquiry into the nature of frequency distributions.

Value

data_machinist gives the observed number of Machinists accidents in six monthly studies.

Author(s)

Muhammad Imran

R implementation and documentation: Muhammad Imran <imranshakoor84@yahoo.com>.

References

Greenwood, M., & Yule, G. U. (1920). An inquiry into the nature of frequency distributions representative of multiple happenings with particular reference to the occurrence of multiple attacks of disease or of repeated accidents. Journal of the Royal Statistical Society, 83(2), 255-279.

See Also

data_indusacci

```
x<-data_machinist
summary(x)
table (x)</pre>
```

Major derogatory 75

Major derogatory	The data set consists of the number of major derogatory reports in the credit history

Description

The function gives the number of major derogatory reports in the credit history of individual credit card applicants.

Usage

```
data_derogatory
```

Arguments

```
data_derogatory
```

A vector of (non-negative integer) count values.

Details

The data set consists of the number of major derogatory reports in the credit history of individual credit card applicants. Recently, it was used by Saengthong et al. (2015) and fitted by the zero-inflated negative binomial-Crack distribution.

Value

data_derogatory gives the number of major derogatory reports in the credit history of individual credit card applicants.

Author(s)

Muhammad Imran

R implementation and documentation: Muhammad Imran <imranshakoor84@yahoo.com>.

References

Saengthong, P., Bodhisuwan, W., & Thongteeraparp, A. (2015). The zero-inflated negative binomial-Crack distribution: some properties and parameter estimation. Songklanakarin Journal of Science and Technology, 37(6), 701-711.

```
x<-data_derogatory
summary(x)
table (x)</pre>
```

76 Major earthquakes

Major earthquakes

The data show the number of major US earthquakes

Description

The function gives the number of major US earthquakes per year from 1950 through 2012.

Usage

```
data_earthq
```

Arguments

data_earthq

A vector of (non-negative integer) count values.

Details

The data show the number of major US earthquakes per year from 1950 through 2012. Recently, they were used by Beckett et al. (2014) and fitted by the zero-inflated Poisson (ZIP) distribution.

Value

data_earthq gives the observed frequencies for the number of major US earthquakes per year from 1950 through 2012.

Author(s)

Muhammad Imran

R implementation and documentation: Muhammad Imran <imranshakoor84@yahoo.com>.

References

Beckett, S., Jee, J., Ncube, T., Pompilus, S., Washington, Q., Singh, A., & Pal, N. (2014). Zero-inflated Poisson (ZIP) distribution: Parameter estimation and applications to model data from natural calamities. Involve, a Journal of Mathematics, 7(6), 751-767.

See Also

```
data_hurricanes
```

```
x<-data_earthq
summary(x)
table (x)</pre>
```

Major US wildfires 77

Major US wildfires

The data show the number of major US wildfires

Description

The function gives the number of major US wildfires per year from 1997 through 2012.

Usage

```
data_wildfire
```

Arguments

data_wildfire A vector of (non-negative integer) count values.

Details

The data show the number of major US wildfires per year from 1997 through 2012. Recently, they were used by Beckett et al. (2014) and fitted by the zero-inflated Poisson (ZIP) distribution.

Value

data_wildfire gives the number of major US wildfires per year from 1997 through 2012.

Author(s)

Muhammad Imran

R implementation and documentation: Muhammad Imran <imranshakoor84@yahoo.com>.

References

Beckett, S., Jee, J., Ncube, T., Pompilus, S., Washington, Q., Singh, A., & Pal, N. (2014). Zero-inflated Poisson (ZIP) distribution: Parameter estimation and applications to model data from natural calamities. Involve, a Journal of Mathematics, 7(6), 751-767.

See Also

```
data_earthq
```

```
x<-data_wildfire
summary(x)
table (x)</pre>
```

78 Male sibship

Male sibship

The data show the frequency distribution of male sibship

Description

The function gives the frequency distribution of male sibship.

Usage

```
data_sibship
```

Arguments

data_sibship A vector of (non-negative integer) count values.

Details

The data show the frequency distribution of male sibship. They were used by Sweeney et al. (2014) and fitted by the zero & N inflated binomial distribution.

Value

data_sibship gives the frequency distribution of male sibship.

Author(s)

Muhammad Imran

 $R\ implementation\ and\ documentation\ Muhammad\ Imran < imranshakoor 84@yahoo.com>.$

References

Sweeney, J., Haslett, J., & Parnell, A. C. (2014). The zero & N inflated binomial distribution with applications. arXiv preprint arXiv:1407.0064.

```
x<-data_sibship
summary(x)
table (x)</pre>
```

Migrants 79

Migrants	The data set consists of the number of migrants from a household in the semi-urban type of village
	the sent through type of through

Description

The function gives the observed frequencies for the number of migrants from a household in the semi-urban type of village.

Usage

```
data_migrants
```

Arguments

data_migrants A vector of (non-negative integer) count values.

Details

The data set consists of the number of migrants from a household in the semi-urban type of village. It was used by Pandey et al. (2015) and fitted by the inflated probability model on rural outmigration.

Value

data_migrants gives the observed frequencies for the number of migrants from a household in the semi-urban type of village.

Author(s)

Muhammad Imran

R implementation and documentation: Muhammad Imran <imranshakoor84@yahoo.com>.

References

Pandey, A., Pandey, H., & Shukla, V. K. (2015). An inflated probability model on rural out migration. Journal of Computer and Mathematical Sciences, 6(12), 702-711.

See Also

```
data_migran, data_migrant
```

```
x<-data_migrants
summary(x)
table (x)</pre>
```

Migrants from growth centre type of village

The data set consists of the number of migrants from a household in a growth centre type of village

Description

The function gives the observed frequencies for the number of migrants from a household in a growth centre type of village.

Usage

data_migrant

Arguments

data_migrant A vector of (non-negative integer) count values.

Details

The data set consists of the number of migrants from a household in a growth centre type of village. It was used by Pandey et al. (2015) and fitted by the inflated probability model on rural outmigration.

Value

data_migrant gives the observed frequencies for the number of migrants from a household in a growth centre type of village.

Author(s)

Muhammad Imran

R implementation and documentation: Muhammad Imran <imranshakoor84@yahoo.com>.

References

Pandey, A., Pandey, H., & Shukla, V. K. (2015). An inflated probability model on rural out migration. Journal of Computer and Mathematical Sciences, 6(12), 702-711.

See Also

data_migran, data_migrants

```
x<-data_migrant
summary(x)
table (x)</pre>
```

Number of actions 81

Description

The function gives the frequency distribution of the number of actions taken in response to a decision by the Court from 1979-1988.

Usage

```
data_action
```

Arguments

data_action A vector of (non-negative integer) count values.

Details

The data contain the frequency distribution of the number of actions taken in response to a decision by the Court from 1979-1988. They were used by Zorn (1998) and fitted by the zero-inflated and hurdle models.

Value

data_action gives the frequency distribution of the number of actions taken in response to a decision by the Court from 1979-1988.

Author(s)

Muhammad Imran

R implementation and documentation: Muhammad Imran <imranshakoor84@yahoo.com>.

References

Zorn, C. J. (1998). An analytic and empirical examination of zero-inflated and hurdle Poisson specifications. Sociological Methods & Research, 26(3), 368-400.

```
x<-data_action
summary(x)
table (x)</pre>
```

Number of migrants

Number of migrants

The data set consists of the total number of migrants in Bangladesh

Description

The function gives the total number of migrants in household cohort excluding international migrants from the rural areas of Comilla district of Bangladesh.

Usage

data_migran

Arguments

data_migran

A vector of (non-negative integer) count values.

Details

The data set consists of the number of households according to the total number of migrants in the household cohort excluding international migrants from the rural areas of Comilla district of Bangladesh. It was used by Pandey and Tiwari (2011) and fitted by the inflated probability model on rural out-migration.

Value

data_migran gives the observed frequencies for the number of migrants from a household in a growth center type of village.

Author(s)

Muhammad Imran

R implementation and documentation: Muhammad Imran <imranshakoor84@yahoo.com>.

References

Pandey, H. & Tiwari, R. (2011), An inflated probability model for the rural out-migration, Recent Research in Science and Technology 2011, 3(7): 100-103

See Also

```
data_migrants, data_migrant
```

```
x<-data_migran
summary(x)
table (x)</pre>
```

Number of occurrences 83

Number of occurrences A data set of size n = 262 concerning the number of times that the word may appear per block

Description

The function gives the number of times that the word may appear per block.

Usage

data_block

Arguments

data_block A vector of (non-negative integer) count values.

Details

A data set of size n = 262 concerns the number of times that the word may appear per block in papers by James Madison. It was used by Conigliani et al. (2000) and underlined the Bayesian assessment of goodness of fit against nonparametric alternatives.

Value

data_block gives the number of times that the word may appear per block.

Author(s)

Muhammad Imran

 $R\ implementation\ and\ documentation:\ Muhammad\ Imran < imranshakoor 84@yahoo.\ com >.$

References

Conigliani, C., Castro, J. I., & O'Hagan, A. (2000). Bayesian assessment of goodness of fit against nonparametric alternatives. Canadian Journal of Statistics, 28(2), 327-342.

```
x<-data_block
summary(x)
table (x)</pre>
```

84 Occupational injury

Occupational injury	The data show the observed number of occupational injuries among post cleaners
---------------------	--

Description

The function gives the observed number of occupational injuries among post-cleaners.

Usage

```
data_inj2
```

Arguments

data_inj2

A vector of (non-negative integer) count values.

Details

The data evaluate the effectiveness of a consultative manual handling workplace risk assessment team (WRATS) in reducing the risk of occupational injury among cleaners within a 600-bed hospital. They were used by Carrivick et al. (2003) and fitted by the zero-inflated Poisson modeling to evaluate occupational safety interventions.

Value

data_inj2 gives the observed number of occupational injuries among post-cleaners.

Author(s)

Muhammad Imran

R implementation and documentation: Muhammad Imran <imranshakoor84@yahoo.com>.

References

Carrivick, P. J., Lee, A. H., & Yau, K. K. (2003). Zero-inflated Poisson modeling to evaluate occupational safety interventions. Safety Science, 41(1), 53-63.

See Also

```
data_inj1, data_inj3
```

```
x<-data_inj2
summary(x)
table (x)</pre>
```

Occupational safety 85

Occupational safety	The data show the frequency distributions for orderly post workplace risk assessment team
---------------------	---

Description

The function gives the frequency distributions for orderly post-WRATS (workplace risk assessment team).

Usage

```
data_inj4
```

Arguments

data_inj4

A vector of (non-negative integer) count values.

Details

The data evaluate the effectiveness of a consultative manual handling workplace risk assessment team (WRATS) in reducing the risk of occupational injury among cleaners within a 600-bed hospital. They were used by Carrivick et al. (2003) and fitted by the zero-inflated Poisson modeling to evaluate occupational safety interventions.

Value

data_inj4 gives the frequency distributions for orderly post-WRATS.

Author(s)

Muhammad Imran

R implementation and documentation: Muhammad Imran <imranshakoor84@yahoo.com>.

References

Carrivick, P. J., Lee, A. H., & Yau, K. K. (2003). Zero-inflated Poisson modeling to evaluate occupational safety interventions. Safety Science, 41(1), 53-63.

See Also

```
data_inj1, data_inj2, data_inj3
```

```
x<-data_inj4
summary(x)
table (x)</pre>
```

Occupational safety interventions

The data show the frequency distributions for the orderly pre workplace risk assessment team

Description

The function gives the frequency distributions for orderly pre-WRATS (workplace risk assessment team).

Usage

```
data_inj3
```

Arguments

data_inj3

A vector of (non-negative integer) count values.

Details

The data evaluate the effectiveness of a consultative manual handling workplace risk assessment team (WRATS) in reducing the risk of occupational injury among cleaners within a 600-bed hospital. They were used by Carrivick et al. (2003) and fitted by the zero-inflated Poisson modeling to evaluate occupational safety interventions.

Value

data_inj3 gives the frequency distributions for orderly pre-WRATS.

Author(s)

Muhammad Imran

R implementation and documentation: Muhammad Imran <imranshakoor84@yahoo.com>.

References

Carrivick, P. J., Lee, A. H., & Yau, K. K. (2003). Zero-inflated Poisson modeling to evaluate occupational safety interventions. Safety Science, 41(1), 53-63.

See Also

```
data_inj1, data_inj2
```

```
x<-data_inj3
summary(x)
table (x)</pre>
```

Onion asynaptic 87

Onion asynaptic

The data represent the observed number of onion plants asynaptic

Description

The function gives the observed number of onion plants asynaptic.

Usage

data_as2

Arguments

data_as2

A vector of (non-negative integer) count values.

Details

The data represent the observed number of onion plants asynaptic. They were used by Jain (1959) and fitted by the negative binomial distribution.

Value

data_as2 gives the observed number of onion plants asynaptic.

Author(s)

Muhammad Imran

R implementation and documentation: Muhammad Imran <imranshakoor84@yahoo.com>.

References

Jain, S. K. (1959). Fitting the negative binomial distribution to some data on asynaptic behavior of chromosomes. Genetica, 30(1), 108-122.

See Also

```
data_p806_7, data_as7, data_p806_9, data_as1
```

```
x<-data_as2
summary(x)
table (x)</pre>
```

Onion plants asynaptic

The data show the observed number of onion plants asynaptic

Description

The function gives the observed number of onion plants asynaptic.

Usage

```
data_as7
```

Arguments

data_as7

A vector of (non-negative integer) count values.

Details

The data show the observed number of onion plants asynaptic. They were used by Jain (1959) and fitted by the negative binomial distribution.

Value

data_as7 gives the observed number of onion plants asynaptic.

Author(s)

Muhammad Imran

 $R\ implementation\ and\ documentation:\ Muhammad\ Imran < imranshakoor84@yahoo.com>.$

References

Jain, S. K. (1959). Fitting the negative binomial distribution to some data on asynaptic behavior of chromosomes. Genetica, 30(1), 108-122.

See Also

```
data_as1, data_p806_8, data_p806_9, data_as1, data_as2
```

```
x<-data_as7
summary(x)
table (x)</pre>
```

Pap smear test 89

Pap smear test	The data show the observed number of pap smear tests a female took in the last six years for females aged more than 18 years
	in the last six years for females agea more than 18 years

Description

The function gives the observed number of pap smear tests a female took in the last six years for females aged more than 18 years.

Usage

```
data_pap
```

Arguments

data_pap

A vector of (non-negative integer) count values.

Details

The data show the observed number of pap smear tests a female took in the last six years for females aged more than 18 years. They were used by Arora and Chaganty (2021) and fitted by the zero-and-k-inflated Poisson distribution.

Value

data_pap gives the observed number of pap smear tests a female took in the last six years for females aged more than 18 years.

Author(s)

Muhammad Imran

R implementation and documentation: Muhammad Imran <imranshakoor84@yahoo.com>.

References

Arora, M., & Chaganty, N. R. (2021). EM estimation for zero-and k-inflated Poisson regression Model. Computation, 9(9), 94.

See Also

```
data_can
```

```
x<-data_pap
summary(x)
table (x)</pre>
```

90 Patent citation

Patent citation	The data contain the frequency distribution of patent citation fall in a category of typical count data

Description

The function gives the frequency distribution of patent citations that fall in a category of typical count data.

Usage

```
data_citation
```

Arguments

data_citation A vector of (non-negative integer) count values.

Details

The data contain the frequency distribution of patent citations that fall in a category of typical count data. They were used by Lee et al. (2007) and fitted by the zero-inflated models.

Value

data_citation gives the frequency distribution of patent citations falling in a category of typical count data.

Author(s)

Muhammad Imran

R implementation and documentation: Muhammad Imran <imranshakoor84@yahoo.com>.

References

Lee, Y. G., Lee, J. D., Song, Y. I., & Lee, S. J. (2007). An in-depth empirical analysis of patent citation counts using zero-inflated count data model: The case of KIST. Scientometrics, 70(1), 27-39.

See Also

```
data_poem
```

```
x<-data_citation
summary(x)
table (x)</pre>
```

Spinal tumor 91

Spinal tumor

The data show the tumor count frequencies from 158 NF2 patients

Description

The function gives tumor count frequencies from 158 NF2 patients.

Usage

data_tumor

Arguments

data_tumor

A vector of (non-negative integer) count values.

Details

The data show the tumor count frequencies from 158 NF2 patients. They were used by Joe and Zhu (2005) and fitted by the generalized Poisson distribution.

Value

data_tumor gives tumor count frequencies from 158 NF2 patients.

Author(s)

Muhammad Imran

R implementation and documentation: Muhammad Imran <imranshakoor84@yahoo.com>.

References

Joe, H., & Zhu, R. (2005). Generalized Poisson distribution: the property of mixture of Poisson and comparison with negative binomial distribution. Biometrical Journal: Journal of Mathematical Methods in Biosciences, 47(2), 219-229.

See Also

data_can

```
x<-data_tumor
summary(x)
table (x)</pre>
```

92 Stillbirths of white rabbits

```
Stillbirths of white rabbits
```

The data represent the number of stillbirths of New Zealand white rabbits

Description

The function gives the frequency of stillbirths in 402 litters of New Zealand white rabbits.

Usage

```
data_sbirths
```

Arguments

data_sbirths A vector of (non-negative integer) count values.

Details

The data set consists of frequency of stillbirths in 402 litters of New Zealand white rabbits. Recently, it was used by Alshkaki (2016) and fitted by the zero-and-one inflated Poisson distribution.

Value

data_sbirths gives the frequency of stillbirths in 402 litters of New Zealand white rabbits.

Author(s)

Muhammad Imran

R implementation and documentation: Muhammad Imran <imranshakoor84@yahoo.com>.

References

Alshkaki, R. S. A. (2016). On the zero-one inflated Poisson distribution. International Journal of Statistical Distributions and Applications, 2(4), 42-8.

Morgan, B. T., Palmer, K. J., & Ridout, M. S. (2007). Negative score test statistic. The American Statistician, 61(4), 285-288.

```
x<-data_sbirths
summary(x)
table (x)</pre>
```

Suicides per day 93

Suicides per day

The data show the number of suicides per day during lockdown

Description

The function gives the number of suicides per day during lockdown.

Usage

data_suicides

Arguments

data_suicides A vector of (non-negative integer) count values.

Details

The data show the number of suicides per day during lockdown. Recently, they were used by Rahman et al. (2022) and fitted by the three-inflated Poisson distribution.

Value

data_suicides gives the number of suicides per day during the lockdown.

Author(s)

Muhammad Imran

R implementation and documentation: Muhammad Imran <imranshakoor84@yahoo.com>.

References

Rahman, T., Hazarika, P. J., Ali, M. M., & Barman, M. P. (2022). Three-inflated Poisson distribution and its application in suicide cases of India during Covid-19 pandemic. Annals of Data Science, 9(5), 1103-1127.

See Also

data_absen

```
x<-data_suicides
summary(x)
table (x)</pre>
```

Systemic adverse event

Systemic adverse event

The data show the frequency distributions of systemic adverse events

Description

The function gives the frequency distributions of systemic adverse events.

Usage

```
data_systemic
```

Arguments

data_systemic A vector of (non-negative integer) count values.

Details

The data show the frequency distributions of systemic adverse events after each of the four injections for the 1005 study participants, which results in 4020 observations. They were used by Rose et al. (2006) and fitted by the zero-inflated and hurdle models for modeling vaccine adverse event count data.

Value

data_systemic gives the frequency distributions of systemic adverse events.

Author(s)

Muhammad Imran

R implementation and documentation: Muhammad Imran <imranshakoor84@yahoo.com>.

References

Rose, C. E., Martin, S. W., Wannemuehler, K. A., & Plikaytis, B. D. (2006). On the use of zero-inflated and hurdle models for modeling vaccine adverse event count data. Journal of Biopharmaceutical Statistics, 16(4), 463-481.

```
x<-data_systemic
summary(x)
table (x)</pre>
```

Teeth of children aged 12

The data show the frequency distribution of decayed, missing, and filled teeth of children aged 12 years old

Description

The function gives the frequency distribution of decayed, missing, and filled teeth of children aged 12 years old.

Usage

data_teeth

Arguments

data_teeth

A vector of (non-negative integer) count values.

Details

The data show the frequency distribution of decayed, missing, and filled teeth of children aged 12 years old. They were used by Moghimbeigi et al. (2008) and fitted by the zero-inflated negative binomial regression modeling for over-dispersed count data with extra zeros.

Value

data_teeth gives the frequency distribution of decayed, missing, and filled teeth of children aged 12 years old.

Author(s)

Muhammad Imran

R implementation and documentation: Muhammad Imran <imranshakoor84@yahoo.com>.

References

Moghimbeigi, A., Eshraghian, M. R., Mohammad, K., & Mcardle, B. (2008). Multilevel zero-inflated negative binomial regression modeling for over-dispersed count data with extra zeros. Journal of Applied Statistics, 35(10), 1193-1202.

See Also

data_anten

```
x<-data_teeth
summary(x)
table (x)</pre>
```

96 Terrorism

Terrorism	The data show the observed number of incidents of international terrorism

Description

The function gives the observed number of incidents of international terrorism per month in the USA between 1968 and 1974.

Usage

```
data_terror
```

Arguments

data_terror

A vector of (non-negative integer) count values.

Details

The data show the observed number of incidents of international terrorism per month in the USA between 1968 and 1974. They were used by Mersad et al. (2015) and fitted by the zero-inflated models.

Value

data_terror gives the observed number of incidents of international terrorism per month in the USA between 1968 and 1974.

Author(s)

Muhammad Imran

R implementation and documentation: Muhammad Imran <imranshakoor84@yahoo.com>.

References

Mersad, M., Ganjali, M., & Rivaz, F. (2015). Some extensions of zero-inflated models and Bayesian tests for them. Journal of Statistical Computation and Simulation, 85(18), 3792-3810.

Conigliani, C., Castro, J. I., & O'Hagan, A. (2000). Bayesian assessment of goodness of fit against nonparametric alternatives. Canadian Journal of Statistics, 28(2), 327-342.

```
x<-data_terror
summary(x)
table (x)</pre>
```

The word length of a Turkish poem

The data show the word length of a Turkish poem

Description

The function gives the frequency distribution of the word length of a Turkish poem.

Usage

data_poem

Arguments

data_poem

A vector of (non-negative integer) count values.

Details

The data show the frequency distribution of the word length of a Turkish poem. Recently, they were used by Cueva et al. (2021) and fitted by the Waring distribution.

Value

data_poem gives the frequency distribution of the word length of a Turkish poem.

Author(s)

Muhammad Imran

R implementation and documentation: Muhammad Imran <imranshakoor84@yahoo.com>.

References

Cueva-Lopez, V., Olmo-Jimenez, M. J., & Rodriguez-Avi, J. (2021). An over and under dispersed Biparametric extension of the Waring Distribution. Mathematics, 9(2), 170.

See Also

```
data_citation
```

```
x<-data_poem
summary(x)
table (x)</pre>
```

98 Ticks count on sheep

Ticks count on sheep The number of ticks was counted on each of 82 sheep

Description

The function gives the number of tick counts on each of the 82 sheep.

Usage

```
data_ticks
```

Arguments

data_ticks

A vector of (non-negative integer) count values.

Details

The data show the number of ticks counted on each of the 82 sheep. They were used by Ross and Preece (1985) and fitted by the negative binomial distribution.

Value

data_ticks gives the number of ticks count on each of the 82 sheep.

Author(s)

Muhammad Imran

 $R\ implementation\ and\ documentation\ Muhammad\ Imran < imranshakoor 84@yahoo.com>.$

References

Ross, G. J. S., & Preece, D. A. (1985). The negative binomial distribution. Journal of the Royal Statistical Society: Series D (The Statistician), 34(3), 323-335.

```
x<-data_ticks
summary(x)
table (x)</pre>
```

Tornado occurrences 99

Tornado occurrences

The data show the number of tornado occurrences in Lafayette

Description

The function gives the number of tornado occurrences in Lafayette.

Usage

data_tornado

Arguments

data_tornado

A vector of (non-negative integer) count values.

Details

The data show the number of tornado occurrences in Lafayette Parish, Louisiana, US per year from 1950 through 2012. Recently, they were used by Beckett et al. (2014) and fitted by the zero-inflated Poisson (ZIP) distribution.

Value

data_tornado gives the number of tornado occurrences in Lafayette.

Author(s)

Muhammad Imran

R implementation and documentation: Muhammad Imran <imranshakoor84@yahoo.com>.

References

Beckett, S., Jee, J., Ncube, T., Pompilus, S., Washington, Q., Singh, A., & Pal, N. (2014). Zero-inflated Poisson (ZIP) distribution: Parameter estimation and applications to model data from natural calamities. Involve, a Journal of Mathematics, 7(6), 751-767.

```
x<-data_tornado
summary(x)
table (x)</pre>
```

100 Traffic accident

accident	Traffic accident	The data consist of observed frequencies for the heavy vehicle traffic accident
----------	------------------	---

Description

The function gives the observed frequencies for the heavy vehicle traffic accident.

Usage

data_accident

Arguments

data_accident A vector of (non-negative integer) count values.

Details

The data consist of the observed frequencies for the heavy vehicle traffic accident in India. Recently, they were used by Alshkaki (2016) and fitted by the zero-and-one inflated Poisson distribution.

Value

data_accident gives the observed frequencies for the heavy vehicle traffic accident.

Author(s)

Muhammad Imran

R implementation and documentation: Muhammad Imran <imranshakoor84@yahoo.com>.

References

Alshkaki, R. S. A. (2016). On the zero-one inflated Poisson distribution. International Journal of Statistical Distributions and Applications, 2(4), 42-8.

Sharma, A. K., & Landge, V. S. (2013). Zero inflated negative binomial for modeling heavy vehicle crash rate on Indian rural highway. International Journal of Advances in Engineering & Technology, 5(2), 292.

See Also

data_acci

```
x<-data_accident
summary(x)
table (x)</pre>
```

Turkish insurance 101

Turkish insurance	The data contain claim frequency for automobile portfolios of a Turk-
	ish insurance company

Description

The function gives the claim frequency for automobile portfolios of a Turkish insurance company occurred between 2012 and 2014.

Usage

data_auto

Arguments

data_auto

A vector of (non-negative integer) count values.

Details

The data contain claim frequency for the automobile portfolios of a Turkish insurance company that occurred between 2012 and 2014. They were used by Sarul and Sahin (2015) and fitted by the zero-inflated and hurdle models in general insurance.

Value

data_auto gives the claim frequency for automobile portfolios of a Turkish insurance company occurred between 2012 and 2014.

Author(s)

Muhammad Imran

R implementation and documentation: Muhammad Imran <imranshakoor84@yahoo.com>.

References

Sarul, L. S., & Sahin, S. (2015). An application of claim frequency data using zero-inflated and hurdle models in general insurance. Journal of Business Economics and Finance, 4(4).

See Also

```
data_claims, data_claim1, data_claim2, data_claim3
```

```
x<-data_auto
summary(x)
table (x)</pre>
```

102 Uganda COVID

Uganda COVID

The data show the daily COVID-19 new cases of Uganda of 37 days

Description

The function gives the daily COVID-19 new cases in Uganda 37 days.

Usage

data_ugacovid

Arguments

data_ugacovid A vector of (non-negative integer) count values.

Details

The data show the daily COVID-19 new cases of Uganda of 37 days, that is recorded from 17 August to 22 September 2020. Recently, they were used by Ibrahim and Almetwally (2021) and fitted by the discrete Marshall-Olkin Lomax distribution.

Value

data_ugacovid gives the daily COVID-19 new cases in Uganda of 37 days.

Author(s)

Muhammad Imran

R implementation and documentation: Muhammad Imran <imranshakoor84@yahoo.com>.

References

Ibrahim, G. M., & Almetwally, E. M. (2021). Discrete marshall-Olkin Lomax distribution application of covid-19. Biomedical journal of Scientific & Technical Research, 32(5), 2021.

See Also

data_argcovid, data_Algeriacovid, data_Bosniacovid

```
x<-data_ugacovid
summary(x)</pre>
```

Units of consumers goods

The data show the frequency distribution of the number of units of consumers goods

Description

The function gives the number of units of consumers goods purchased by households over 26 weeks.

Usage

data_units

Arguments

data_units

A vector of (non-negative integer) count values.

Details

The data show the number of units of consumer goods purchased by households over 26 weeks. Recently, they were used by Aryuyuen et al. (2014) and fitted by the zero-inflated negative binomial-generalized exponential distribution.

Value

data_units gives the number of units of consumers goods purchased by households over 26 weeks.

Author(s)

Muhammad Imran

R implementation and documentation: Muhammad Imran <imranshakoor84@yahoo.com>.

References

Aryuyuen, S., Bodhisuwan, W., & Supapakorn, T. (2014). Zero-inflated negative binomial-generalized exponential distribution and its applications. Songklanakarin Journal of Science and Technology, 36(4), 483-91.

Lindsey, J. K. (1995). Modeling frequency and count data (Vol. 15). Oxford University Press.

```
x<-data_units
summary(x)
table (x)</pre>
```

Workplace risk assessment

The data show the observed number of occupational injuries among cleaners

Description

The function gives the observed number of occupational injuries among cleaners.

Usage

```
data_inj1
```

Arguments

data_inj1

A vector of (non-negative integer) count values.

Details

The data evaluate the effectiveness of a consultative manual handling workplace risk assessment team in reducing the risk of occupational injury among cleaners within a 600-bed hospital. They were used by Carrivick et al. (2003) and fitted by the zero-inflated Poisson modeling to evaluate occupational safety interventions.

Value

data inj1 gives the observed number of occupational injuries among cleaners.

Author(s)

Muhammad Imran

R implementation and documentation: Muhammad Imran <imranshakoor84@yahoo.com>.

References

Carrivick, P. J., Lee, A. H., & Yau, K. K. (2003). Zero-inflated Poisson modeling to evaluate occupational safety interventions. Safety Science, 41(1), 53-63.

See Also

```
data_inj2, data_inj3, data_inj4
```

```
x<-data_inj1
summary(x)
table (x)</pre>
```

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