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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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DDPM-package *Data Sets for Discrete Probability Models*

Description

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 *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

Examples

```
x<-data_absen
summary(x)
table (x)
```

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

Examples

```
x<-data_claims
summary(x)
table (x)
```

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

Examples

```
x<-data_wacci
summary(x)
table (x)
```

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

Examples

```
x<-data_acci
summary(x)
table (x)
```

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

Examples

```
x<-data_accide
summary(x)
table (x)
```

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

Examples

```
x<-data_belfast
summary(x)
table (x)
```

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

Examples

```
x<-data_connecticut
summary(x)
table (x)
```

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

Examples

```
x<-data_mites
summary(x)
table (x)
```

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

Examples

```
x<-data_ammunition
summary(x)
table (x)
```

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

Examples

```
x<-data_antenatal
summary(x)
table (x)
```

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

Examples

```
x<-data_anten
summary(x)
table (x)
```

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

Examples

```
x<-data_root
summary(x)
table (x)
```

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

Examples

```
x<-data_argcovid
summary(x)
table (x)
```

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

Examples

```
x<-data_as1
summary(x)
table (x)
```

`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

Examples

```
x<-data_hurricanes
summary(x)
table (x)
```

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

Examples

```
x<-data_claim3
summary(x)
table (x)
```

`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

Examples

```
x<-data_claim1
summary(x)
table (x)
```

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

Examples

```
x<-data_claim4
summary(x)
table (x)
```

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

Examples

```
x<-data_claim7
summary(x)
table (x)
```

`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 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

Examples

```
x<-data_claim8
summary(x)
table (x)
```

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

Examples

```
x<-data_claim6
summary(x)
table (x)
```

`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

Examples

```
x<-data_claim5
summary(x)
table (x)
```

`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

Examples

```
x<-data_claim2
summary(x)
table (x)
```

`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`

Examples

```
x<-data_bfemale
summary(x)
table (x)
```

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

Examples

```
x<-data_bmale
summary(x)
table (x)
```

`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`

Examples

```
x<-data_bfatality
summary(x)
table (x)
```

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

Examples

```
x<-data_can
summary(x)
table (x)
```

`Carious teeth` *The data show the frequency distribution of the number of carious teeth among the four deciduous molars*

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`

Examples

```
x<-data_carious
summary(x)
table (x)
```

`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`

Examples

```
x<-data_tacci
summary(x)
table (x)
```

`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`

Examples

```
x<-data_bregion
summary(x)
table (x)
```

`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`

Examples

```
x<-data_cregion
summary(x)
table (x)
```

`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`

Examples

```
x<-data_eregion
summary(x)
table (x)
```

`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`

Examples

```
x<-data_hregion
summary(x)
table (x)
```

`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`

Examples

```
x<-data_rfemale
summary(x)
table (x)
```

`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`

Examples

```
x<-data_age_30
summary(x)
table (x)
```

`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`

Examples

```
x<-data_age_40
summary(x)
table (x)
```

`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`

Examples

```
x<-data_ufemale
summary(x)
table (x)
```

`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`

Examples

```
x<-data_uttar
summary(x)
table (x)
```

`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`

Examples

```
x<-data_wregion
summary(x)
table (x)
```

`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`

Examples

```
x<-data_child
summary(x)
table (x)
```

`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`

Examples

```
x<-data_vinsurance
summary(x)
table (x)
```

`Chromatid aberrations` *The data show the frequency distribution of chromatid aberrations in human leukocyte*

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.

Examples

```
x<-data_chromatid
summary(x)
table (x)
```

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

Examples

```
x<-data_p806_8
summary(x)
table (x)
```

`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`

Examples

```
x<-data_p806_7
summary(x)
table (x)
```

`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`

Examples

```
x<-data_p806_9
summary(x)
table (x)
```

`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`

Examples

```
x<-data_aclaim
summary(x)
table (x)
```

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

Examples

```
x<-data_Algeriacovid
summary(x)
table (x)
```

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

Examples

```
x<-data_Bosniacovid
summary(x)
table (x)
```

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

Examples

```
x<-data_COVIDd
summary(x)
table (x)
```

`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.

Examples

```
x<-data_crime
summary(x)
table (x)
```

`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`

Examples

```
x<-data_cysts
summary(x)
table (x)
```

`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`

Examples

```
x<-data_deaths
summary(x)
table (x)
```

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.

Examples

```
x<-data_death
summary(x)
table (x)
```

`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`

Examples

```
x<-data_dentist
summary(x)
table (x)
```

`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`

Examples

```
x<-data_tfatality
summary(x)
table (x)
```

`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`

Examples

```
x<-data_ofatality
summary(x)
table (x)
```

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

Examples

```
x<-data_gfatality
summary(x)
table (x)
```

`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`

Examples

```
x<-data_bihar
summary(x)
table (x)
```

`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`

Examples

```
x<-data_orissa
summary(x)
table (x)
```

`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`

Examples

```
x<-data_rajasthan
summary(x)
table (x)
```

`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`

Examples

```
x<-data_bengal
summary(x)
table (x)
```

`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.

Examples

```
x<-data_fetalm
summary(x)
table (x)
```

`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`

Examples

```
x<-data_accid
summary(x)
table (x)
```

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

Examples

```
x<-data_edeath
summary(x)
table (x)
```

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.

Examples

```
x<-data_stays
summary(x)
table (x)
```

`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)
```

`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`

Examples

```
x<-data_indusacci
summary(x)
table (x)
```

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

Examples

```
x<-data_queue
summary(x)
table (x)
```

`Lost shoes` *The data show the frequancy distribution of lost shoes at a Museum gate*

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 frequancy 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.

Examples

```
x<-data_lost
summary(x)
table (x)
```

`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`

Examples

```
x<-data_machinist
summary(x)
table (x)
```

`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.

Examples

```
x<-data_derogatory
summary(x)
table (x)
```

`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`

Examples

```
x<-data_earthq
summary(x)
table (x)
```

`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`

Examples

```
x<-data_wildfire
summary(x)
table (x)
```

`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 <imranshakoor84@yahoo.com>.

References

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

Examples

```
x<-data_sibship
summary(x)
table (x)
```

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

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 out-migration.

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

Examples

```
x<-data_migrants
summary(x)
table (x)
```

`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`

Examples

```
x<-data_migrant
summary(x)
table (x)
```

`Number of actions` *The data contain the frequency distribution of the number of actions taken in response to a decision by the Court*

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.

Examples

```
x<-data_action
summary(x)
table (x)
```

`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`

Examples

```
x<-data_migran
summary(x)
table (x)
```

`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 <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.

Examples

```
x<-data_block
summary(x)
table (x)
```

`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`

Examples

```
x<-data_inj2
summary(x)
table (x)
```

`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`

Examples

```
x<-data_inj4
summary(x)
table (x)
```

`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`

Examples

```
x<-data_inj3
summary(x)
table (x)
```

`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`

Examples

```
x<-data_as2
summary(x)
table (x)
```

`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`

Examples

```
x<-data_as7
summary(x)
table (x)
```

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*

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

Examples

```
x<-data_pap
summary(x)
table (x)
```

`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`

Examples

```
x<-data_citation
summary(x)
table (x)
```

`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`

Examples

```
x<-data_tumor
summary(x)
table (x)
```

`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.

Examples

```
x<-data_sbirths
summary(x)
table (x)
```

`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`

Examples

```
x<-data_suicides
summary(x)
table (x)
```

`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.

Examples

```
x<-data_systemic
summary(x)
table (x)
```

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

Examples

```
x<-data_teeth
summary(x)
table (x)
```

`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.

Examples

```
x<-data_terror
summary(x)
table (x)
```

`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`

Examples

```
x<-data_poem
summary(x)
table (x)
```

`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 <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.

Examples

```
x<-data_ticks
summary(x)
table (x)
```

`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.

Examples

```
x<-data_tornado
summary(x)
table (x)
```

`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`

Examples

```
x<-data_accident
summary(x)
table (x)
```

`Turkish insurance` *The data contain claim frequency for automobile portfolios of a Turkish 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`

Examples

```
x<-data_auto
summary(x)
table (x)
```

`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`

Examples

```
x<-data_ugacovid
summary(x)
```

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.

Examples

```
x<-data_units
summary(x)
table (x)
```

`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`

Examples

```
x<-data_inj1
summary(x)
table (x)
```

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