

Package ‘peopleanalyticsdata’

October 14, 2022

Title Data Sets for Keith McNulty's Handbook of Regression Modeling in
People Analytics

Version 0.2.1

Description Data sets for statistical inference modeling related to People Analytics.
Contains various data sets from the book 'Handbook of Regression Modeling in People Analytics'
by Keith McNulty (2020).

License MIT + file LICENSE

Encoding UTF-8

LazyData true

URL <http://peopleanalytics-regression-book.org>

RoxygenNote 7.1.1

Depends R (>= 2.10)

NeedsCompilation no

Author Keith McNulty [aut, cre] (<<https://orcid.org/0000-0002-2332-1654>>)

Maintainer Keith McNulty <keith.mcnulty@gmail.com>

Repository CRAN

Date/Publication 2021-04-13 10:00:02 UTC

R topics documented:

charity_donation	2
employee_performance	3
employee_survey	3
graduates	4
health_insurance	4
job_retention	5
learning	6
managers	7
politics_survey	8
promotion	9
recruiting	9

salespeople	10
soccer	11
sociological_data	11
speed_dating	12
ugtests	13
Index	14

charity_donation	<i>Charity donation data</i>
------------------	------------------------------

Description

Fictional data on the demographics and donation behavior of donors to a wildlife charity

Usage

charity_donation

Format

A dataframe with 354 rows and 8 variables:

n_donations The total number of times the individual donated previous to the month being studied

total_donations The total amount of money donated by the individual previous to the month being studied

time_donating The number of months between the first donation and the month being studied

recent_donation Whether or not the individual donated in the month being studied

last_donation The number of months between the most recent previous donation and the month beng studied

gender The gender of the individual

reside Whether the person resides in an Urban or Rural Domestic location or Overseas

age The age of the individual

Examples

charity_donation

employee_performance *Employee performance data*

Description

Fictional data on employee performance evaluation metrics for a group of salespeople.

Usage

employee_performance

Format

A dataframe with 366 rows and 5 variables:

sales The annual sales of the individual in millions of dollars

new_customers The number of new customers acquired by the individual

region The region the individuals works in - North, South, East or West

gender The gender of the individual

rating The performance rating of the individual - 1 = Low, 2 = Middle, 3 = High

Examples

employee_performance

employee_survey *Employee survey data*

Description

Fictional data on the results of an engagement survey among company employees on a four-point Likert scale indicating increasingly positive sentiment

Usage

employee_survey

Format

A dataframe with 2833 rows and 14 variables:

Happiness The employee rating on their overall happiness

Ben1, Ben2, Ben3 The employee rating on three questions related to employment benefits

Work1, Work2, Work3 The employee rating on three questions related to general work environment

Man1, Man2, Man3 The employee rating on three questions related to perceptions of management

Car1, Car2, Car3, Car4 The employee rating on four questions related to perceptions of career prospects

Examples

employee_survey

graduates *Graduate salary data*

Description

Data on graduate salaries in the United States

Usage

graduates

Format

A dataframe with 173 rows and 5 variables:

Major The specific subject major

Discipline The broad subject discipline

Total The number of graduates of working age in the US

Unemployment_rate The proportion of graduates currently unemployed

Median_salary The current median salary of those employed in US dollars

Source

[FiveThirtyEight](#)

Examples

graduates

health_insurance *Health insurance data*

Description

Fictional data on the choice of health insurance product by employees of a large company

Usage

health_insurance

Format

A dataframe with 1453 rows and 6 variables:

product The choice of product of the individual - A, B or C

age The age of the individual when they made the choice

household The number of people living with the individual in the same household at the time of the choice

position_level The individual's position level in the company at the time they made the choice, where 1 is the lowest and 5 is the highest

gender The gender of the individual as stated when they made the choice

absent The number of days the individual was absent from work in the year prior to the choice

Examples

health_insurance

job_retention	<i>Job retention data</i>
---------------	---------------------------

Description

Fictional data on the retention of employees in various fields of employment over a 12 month period

Usage

job_retention

Format

A dataframe with 3770 rows and 7 variables:

gender The gender of the individual studied

field The field of employment of the individual at the beginning of the study

level The level of the position of the individual in their organization at the beginning of the study - Low, Medium or High

sentiment The sentiment score reported by the individual on a scale of 1 to 10 at the beginning of the study, with 1 indicating extremely negative sentiment and 10 indicating extremely positive sentiment

intention A score of 1 to 10 reported by the individual at the beginning of the study regarding their intention to leave their job in the next 12 months, where 1 indicates an extremely low intention and 10 indicates an extremely high intention

left A binary variable indicating whether or not the individual had left their job as at the last follow-up

month The month of the last follow-up

Examples

job_retention

learning

Learning program feedback data

Description

Fictional data on feedback from participants in a set of learning programs

Usage

learning

Format

A dataframe with 4974 rows and 8 variables:

idcode The unique ID code of the participant

rec A binary value indicating whether the participant would recommend the program to others

rel A rating from the participant on the relevance of the program to their work, where 1 is Very Low and 5 is Very High

fun A rating on how enjoyable and fun the participant found the program, where 1 is Very Low and 5 is Very High

clar A rating from the participant on the clarity of the content and teaching in the program, where 1 is Very Low and 5 is Very High

home A rating from the participant on the quality of the homework or project work in the program, where 1 is Very Low and 5 is Very High

class A rating from the participant on the quality of the overall class who attended the program, where 1 is Very Low and 5 is Very High

fac A rating from the participant on the quality of the program faculty and instructors, where 1 is Very Low and 5 is Very High

Examples

learning

managers

Manager performance data

Description

Fictional data on the performance and other characteristics of a group of managers in a large company

Usage

managers

Format

A dataframe with 571 rows and 13 variables:

employee_id The unique ID number for each manager

performance_group The performance group of each manager in a recent performance review: Bottom performer, Middle performer, Top performer

yrs_employed Total length of time employed by the company in years

manager_hire Whether or not the individual was hired directly to be a manager (Y) or promoted to manager (N)

test_score Score on a test given to all managers

group_size The number of employees in the group the manager is responsible for

concern_flag Whether or not the individual has been the subject of a complaint by a member of their group

mobile_flag Whether or not the individual works mobile (Y) or in the office (N)

customers The number of customer accounts the manager is responsible for

high_hours_flag Whether or not the manager has entered unusually high hours into their timesheet in the past year

transfers The number of transfer requests coming from the manager's group while they have been a manager

reduced_schedule Whether the manager works part time (Y) or full time (N)

city The current office of the manager

Examples

managers

politics_survey *Politics survey data*

Description

Fictional data from a survey conducted by a political party on a Likert scale of 1 to 4 indicating increasingly positive sentiment

Usage

```
politics_survey
```

Format

A dataframe with 2108 rows and 23 variables:

Overall The respondent's overall intention to vote for the party in the next election

Pol1, Pol2, Pol3 The respondent's sentiment on three questions related to the policies of the party

Hab1, Hab2, Hab3 The respondent's sentiment on three questions regarding prior voting habits in relation to the party

Loc1, Loc2, Loc3, Loc4 The respondent's sentiment on four questions related to their interest in local issues

Env1, Env2 The respondent's sentiment on two questions related to their interest in environment issues

Int1, Int2 The respondent's sentiment on two questions related to their interest in international issues

Pers1, Pers2, Pers3 The respondent's sentiment on three questions related to their perceptions of the personalities of local and national party leaders

Nat1, Nat2, Nat3 The respondent's sentiment on three questions related to their interest in national issues

Eco1, Eco2 The respondent's sentiment on two questions related to their interest in economic issues

Examples

```
politics_survey
```

promotion

Promotion data

Description

Fictional data on promotions in a retail company

Usage

promotion

Format

A dataframe with 1134 rows and 5 variables:

diverse A binary value indicating membership of a diversity group at the company

flexible A binary value indicating whether or not the individual worked part-time for at least 6 months

store A binary value indicating whether the individual joined in a position working in the retail stores

promoted A binary value indicating whether or not the individual was promoted

result The year of the last record of the individual, where the date they joined was year 0. If the individual was promoted, this will be the year of the promotion.

Examples

promotion

recruiting

Recruiting data

Description

Fictional data on applicants to a graduate recruiting program in a financial services company

Usage

recruiting

Format

A dataframe with 966 rows and 8 variables:

gender The gender of the applicant

sat The SAT score of the applicant

gpa The GPA of the applicant

apttest The result of an aptitude test given to the applicant

int1, int2 Applicant rating given by two line manager interviewers, on a Likert Scale of 1 to 5 indicating increasing positivity

int3 Applicant rating given by a human resources interviewer, on a Likert Scale of 1 to 5 indicating increasing positivity

hired Binary indicating whether the decision was Hire (1) or No Hire (0)

Examples

recruiting

salespeople

Salespeople promotion data

Description

Fictional data on promotion and performance for salespeople in a technology company

Usage

salespeople

Format

A dataframe with 351 rows and 4 variables:

promoted A binary value indicating 1 if the individual was promoted and 0 if not

sales The sales (in thousands of dollars) attributed to the individual in the period of the promotion

customer_rate The average satisfaction rating from a survey of the individual's customers during the promotion period

performance The most recent performance rating prior to promotion from 1 (lowest) to 4 (highest)

Examples

salespeople

soccer *Soccer discipline data*

Description

Fictional data on disciplinary measures by referees in soccer games

Usage

soccer

Format

A dataframe with 2291 rows and 7 variables:

discipline A record of the maximum discipline taken by the referee against the player in the game. “None” means no discipline was taken, “Yellow” means the player was issued a yellow card (warned), “Red” means the player was issued a red card and ordered off the field of play

n_yellow_25 The total number of yellow cards issued to the player in the previous 25 games they played prior to this game

n_red_25 The total number of red cards issued to the player in the previous 25 games they played prior to this game

position The playing position of the player in the game: “D” is defence (including goalkeeper), “M” is midfield and “S” is striker/attacker

result The result of the game for the team of the player - “W” is win, “L” is lose, “D” is a draw/tie

country The country in which the game took place - England or Germany

level The skill level of the competition in which the game took place, with 1 being higher and 2 being lower

Examples

soccer

sociological_data *Sociological survey data*

Description

Fictional data on a sociological survey related to income levels in various regions of the world.

Usage

sociological_data

Format

A dataframe with 2618 rows and 9 variables:

- annual_income_ppp** The annual income of the individual in PPP adjusted US dollars
- average_wk_hrs** The average number of hours per week worked by the individual
- education_months** The total number of months spend by the individual in formal primary, secondary and tertiary education
- region** The region of the world where the individual lives
- job_type** Whether the individual works in a skilled or unskilled profession
- gender** The gender of the individual
- family_size** The size of the individual's family of dependents
- work_distance** The distance between the individual's residence and workplace in kilometers
- languages** The number of languages spoken fluently by the individual

Examples

sociological_data

speed_dating

Speed dating data

Description

Simplified version of the Columbia University speed dating experiment data set

Usage

speed_dating

Format

A dataframe with 8378 rows and 11 variables:

- iid** An id number for the individual
- gender** The gender of the individual with 0 as Female and 1 as Male
- match** Indicates if the meeting resulted in a match
- samerace** Indicates if both the individual and the partner were of the same race
- race** The race of the individual, with race coded as follows: Black/African American=1, European/Caucasian-American=2, Latino/Hispanic American=3, Asian/Pacific Islander/Asian-American=4, Native American=5, Other=6
- goal** The reason why the individual is participating in the event, coded as follows: Seemed like a fun night out=1, To meet new people=2, To get a date=3, Looking for a serious relationship=4, To say I did it=5, Other=6

- dec** A binary rating from the individual as to whether they would like to see their partner again (1 is Yes and 0 is No)
- attr** The individual's rating out of ten on the attractiveness of the partner
- intel** The individual's rating out of ten on the intelligence level of the partner
- prob** The individual's rating out of ten on whether they believe the partner will want to see them again
- agediff** The absolute difference in the ages of the individual and the partner

Source

Andrew Gelman

Examples

speed_dating

ugtests *Undergraduate examination data*

Description

Fictional data on examination scores of undergraduates on a four year biology degree program.

Usage

ugtests

Format

A dataframe with 975 rows and 4 variables:

Yr1 Score in the first year examination on a scale of 0-100

Yr2 Score in the second year examination on a scale of 0-200

Yr3 Score in the third year examination on a scale of 0-200

Final Score in the final year examination on a scale of 0-300

Examples

ugtests

Index

* datasets

- charity_donation, 2
- employee_performance, 3
- employee_survey, 3
- graduates, 4
- health_insurance, 4
- job_retention, 5
- learning, 6
- managers, 7
- politics_survey, 8
- promotion, 9
- recruiting, 9
- salespeople, 10
- soccer, 11
- sociological_data, 11
- speed_dating, 12
- ugtests, 13

- charity_donation, 2
- employee_performance, 3
- employee_survey, 3
- graduates, 4
- health_insurance, 4
- job_retention, 5
- learning, 6
- managers, 7
- politics_survey, 8
- promotion, 9
- recruiting, 9
- salespeople, 10
- soccer, 11
- sociological_data, 11
- speed_dating, 12
- ugtests, 13