Reason Database Project in R

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7/9/2020

## R Markdown

This is an R Markdown document. Pension Database Project (R + SQL): By Anil, Truong, Marc, Swaroop, Jordan Internal shiny app: <https://app.asana.com/0/450030537891393/1177895321496545> GitHub repository: <https://github.com/ReasonFoundation/databaseR>

Functionality: Search by state, by plan, by year, View & download pulled data table Filter data for state & some municipal plans View data sources Graph UAL/Inv.Returns \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Credentials to access database on postgreSQL: dbname = “d629vjn37pbl3l”, host = “ec2-3-209-200-73.compute-1.amazonaws.com”, port = 5432, user = “reason\_readonly”, password = “p88088bd28ea68027ee96c65996f7ea3b56db0e27d7c9928c05edc6c23ef2bc27”, sslmode = “require” This file: <https://github.com/ReasonFoundation/pensionviewr/blob/master/R/sysdata.rda>

## Functionality of pensionviewr package

library(reasontheme)  
library(pensionviewr)

##   
## Attaching package: 'pensionviewr'

## The following object is masked from 'package:grDevices':  
##   
## savePlot

lsf.str("package:pensionviewr")

## %>% : function (lhs, rhs)   
## debtPlot : function (data)   
## debtTable : function (data)   
## glPlot : function (filename, ylab\_unit = "Billions")   
## linePlot : function (data, .var1 = "adec\_contribution\_rates", .var2 = "actual\_contribution\_rates",   
## labelY = "Employer Contribution (% of Payroll)", label1 = "ADEC Contribution Rate",   
## label2 = "Actual Contribution Rate")   
## loadData : function (filename)   
## planList : function ()   
## pullData : function (pl, plan\_name = "Texas Employees Retirement System")   
## savePlot : function (plot, source, save\_filepath = file.path(Sys.getenv("TMPDIR"),   
## "tmp-nc.png"), width\_pixels = 648, height\_pixels = 384.48)   
## selectedData : function (wide\_data)

## Raw format (pullData())

pl <- planList()  
library(data.table)  
x <- data.table(pullData(pl, "New Mexico Educational Retirement Board"))  
colnames(x)

## [1] "year"   
## [2] "plan\_id"   
## [3] "display\_name"   
## [4] "state"   
## [5] "x1\_year\_investment\_return\_percentage"   
## [6] "x10\_year\_investment\_return\_percentage"   
## [7] "x15\_year\_investment\_return\_percentage"   
## [8] "x20\_year\_investment\_return\_percentage"   
## [9] "x25\_year\_investment\_return\_percentage"   
## [10] "x3\_year\_investment\_return\_percentage"   
## [11] "x30\_year\_investment\_return\_percentage"   
## [12] "x5\_year\_investment\_return\_percentage"   
## [13] "actuarial\_assets\_reported\_for\_asset\_smoothing"   
## [14] "actuarial\_cost\_method\_code\_names\_for\_gasb"   
## [15] "actuarial\_cost\_method\_in\_gasb\_reporting"   
## [16] "actuarial\_experience\_dollar"   
## [17] "actuarial\_funded\_ratio\_percentage"   
## [18] "actuarial\_valuation\_report\_date"   
## [19] "actuarial\_value\_of\_assets\_dollar"   
## [20] "actuarial\_value\_of\_assets\_gasb\_dollar"   
## [21] "actuarially\_accrued\_liabilities\_dollar"   
## [22] "actuarially\_determined\_contribution\_dollar"   
## [23] "actuarially\_determined\_contribution\_missed\_dollar"   
## [24] "actuarially\_required\_contribution\_dollar"   
## [25] "actuarially\_required\_contribution\_paid\_percentage"   
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## [27] "administrating\_jurisdiction"   
## [28] "administrative\_expense\_dollar"   
## [29] "administrative\_expense\_in\_normal\_cost\_dollar"   
## [30] "amortizaton\_method"   
## [31] "amounts\_transmitted\_to\_federal\_social\_security\_system\_dollar"   
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## [33] "asset\_smoothing\_baseline"   
## [34] "asset\_smoothing\_baseline\_add\_or\_subtract\_gain\_loss"   
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## [39] "average\_age\_of\_actives"   
## [40] "average\_benefit\_of\_beneficiaries"   
## [41] "average\_benefit\_paid\_to\_service\_retirees"   
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## [43] "average\_tenure\_of\_actives"   
## [44] "basis\_of\_membership\_and\_participation"   
## [45] "benefit\_payments\_dollar"   
## [46] "benefits\_paid\_to\_disability\_retirees\_dollar"   
## [47] "benefits\_paid\_to\_service\_retirees\_dollar"   
## [48] "benefits\_website"   
## [49] "blended\_discount\_rate"   
## [50] "bonds\_corporate\_book\_value\_dollar"   
## [51] "bonds\_corporate\_other\_book\_value\_dollar"   
## [52] "bonds\_corporate\_other\_dollar"   
## [53] "bonds\_federally\_sponsored\_investments\_dollar"   
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## [57] "census\_retirement\_system\_code"   
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## [59] "closed\_plan"   
## [60] "cost\_sharing"   
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## [63] "disability\_benefits\_paid\_dollar"   
## [64] "dividends\_income\_dollar"   
## [65] "do\_employees\_contribute"   
## [66] "employee\_contribution\_dollar"   
## [67] "employee\_group\_id"   
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## [73] "employer\_normal\_cost\_percentage\_estimated\_categorical"   
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## [75] "employer\_state\_contribution\_dollar"   
## [76] "employer\_type"   
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## [79] "estimated\_actuarial\_funded\_ratio\_indicator"   
## [80] "estimated\_actuarial\_liabilities\_indicator"   
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## [82] "fair\_value\_change\_investments"   
## [83] "federal\_agency\_securities\_investments\_dollar"   
## [84] "federal\_government\_securities\_investments\_dollar"   
## [85] "federal\_treasury\_securities\_investments\_dollar"   
## [86] "federally\_sponsored\_agnecy\_securities\_investments\_dollar"   
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## [88] "fiscal\_year\_of\_contribution"   
## [89] "fiscal\_year\_type"   
## [90] "foreign\_and\_international\_securities\_investments\_1997\_2001\_dollar"   
## [91] "foreign\_and\_international\_securities\_investments\_2001\_present\_dollar"   
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## [93] "former\_active\_members\_retired\_on\_account\_of\_disability"   
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## [96] "funding\_method\_code\_2\_for\_gasb\_reporting"   
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## [99] "gain\_loss\_base\_2"   
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## [104] "gain\_loss\_values\_to\_be\_included\_in\_smoothed\_asset\_calculation"   
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## [131] "monthly\_payments\_to\_disabled\_dollar"   
## [132] "monthly\_payments\_to\_retirees\_dollar"   
## [133] "monthly\_payments\_to\_survivors\_dollar"   
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## [140] "number\_of\_survivors"   
## [141] "number\_of\_years\_remaining\_on\_amortization\_schedule"   
## [142] "optional\_benefits\_available"   
## [143] "other\_actuarial\_experience\_dollar"   
## [144] "other\_actuarially\_accured\_liabilities\_dollar"   
## [145] "other\_additions\_dollar"   
## [146] "other\_benefits\_paid\_dollar"   
## [147] "other\_contribution\_dollar"   
## [148] "other\_deductions\_dollar"   
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## [161] "present\_value\_of\_future\_benefits\_for\_retired\_members\_dollar"   
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## [169] "securities\_lending\_rebates\_dollar"   
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## [176] "state\_contribution\_to\_own\_system\_on\_behalf\_of\_employees\_dollar"   
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## [178] "state\_government\_active\_members"   
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## [182] "survivors\_receiving\_lump\_sum\_payments"   
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## [184] "tier\_id"   
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## [189] "total\_amount\_of\_active\_salaries\_payroll\_in\_dollars"   
## [190] "total\_benefits\_paid\_dollar"   
## [191] "total\_cash\_and\_securities\_investments\_dollar"   
## [192] "total\_contribution\_dollar"   
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## [195] "total\_normal\_cost\_percentage"   
## [196] "total\_normal\_cost\_percentage\_estimated\_categorical"   
## [197] "total\_number\_of\_beneficiaries"   
## [198] "total\_number\_of\_disability\_retirees"   
## [199] "total\_number\_of\_inactive\_non\_vested"   
## [200] "total\_number\_of\_inactive\_vested"   
## [201] "total\_number\_of\_members"   
## [202] "total\_number\_of\_other\_beneficiaries"   
## [203] "total\_number\_of\_service\_retirees"   
## [204] "total\_number\_of\_survivor\_beneficiaries"   
## [205] "total\_other\_investments\_dollar"   
## [206] "total\_other\_securities\_investments\_dollar"   
## [207] "total\_pension\_liability\_dollar"   
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## [209] "type\_of\_employees\_covered"   
## [210] "unfunded\_actuarially\_accrued\_liabilities\_dollar"   
## [211] "vesting\_period"   
## [212] "wage\_inflation"   
## [213] "year\_of\_inception"

#library(devtools)  
#library(roxygen2)  
#pullSourceData.test <- source\_url("https://raw.githubusercontent.com/ReasonFoundation/databaseR/master/PullSourceData.R")  
#pullSourceData.test  
#pullSourceData.test$value("New Mexico Educational Retirement Board")

## Data Filtering