Oppgave 6

Kenneth

2022-09-06

```
#Oppgave 6
library(ggplot2)
## Warning in register(): Can't find generic 'scale_type' in package ggplot2 to
## register S3 method.
library(gglorenz)
library(tidyverse)
## Warning: package 'tidyverse' was built under R version 4.1.2
## -- Attaching packages ------ tidyverse 1.3.2 --
## v tibble 3.1.6 v dplyr 1.0.7
## v tidyr 1.1.4 v stringr 1.4.0
## v readr 2.1.1 v forcats 0.5.1
## v purrr 0.3.4
## -- Conflicts -----
                                         ----- tidyverse_conflicts() --
## x dplyr::filter() masks stats::filter()
## x dplyr::lag() masks stats::lag()
library(PxWebApiData)
library(readxl)
library(ineq)
library(ggpubr)
#Hvilke variabler som finnes i tabellen
variables <- ApiData("https://data.ssb.no/api/v0/en/table/12558/",</pre>
                     returnMetaFrames = TRUE)
names(variables)
## [1] "Region"
                      "InntektSkatt" "Desiler"
                                                    "ContentsCode" "Tid"
#hvilke verdier har ulike variablene
values <- ApiData("https://data.ssb.no/api/v0/en/table/12558/",</pre>
                  returnMetaData = TRUE)
#Kommunekoder
values[[1]]$values
     [1] "0"
                 "30"
                         "01"
                                 "3001" "3002" "3003" "3004" "3005"
## [10] "3007" "3011" "3012" "3013" "3014" "3015" "3016" "3017" "3018"
```

##	[19]	"3019"	"3020"	"3021"	"3022"	"3023"	"3024"	"3025"	"3026"	"3027"
##	[28]	"3028"	"3029"	"3030"	"3031"	"3032"	"3033"	"3034"	"3035"	"3036"
##	[37]	"3037"	"3038"	"3039"	"3040"	"3041"	"3042"	"3043"	"3044"	"3045"
##	[46]	"3046"	"3047"	"3048"	"3049"	"3050"	"3051"	"3052"	"3053"	"3054"
##	[55]	"0101"	"0102"	"0103"	"0104"	"0105"	"0106"	"0111"	"0113"	"0114"
##	[64]	"0115"	"0116"	"0117"	"0118"	"0119"	"0121"	"0122"	"0123"	"0124"
##	[73]	"0125"	"0127"	"0128"	"0130"	"0131"	"0133"	"0134"	"0135"	"0136"
##	[82]	"0137"	"0138"	"0199"	"02"	"0211"	"0213"	"0214"	"0215"	"0216"
##	[91]	"0217"	"0219"	"0220"	"0221"	"0226"	"0227"	"0228"	"0229"	"0230"
##	[100]	"0231"	"0233"	"0234"	"0235"	"0236"	"0237"	"0238"	"0239"	"0299"
##	[109]	"03"	"0301"	"0399"	"34"	"04"	"3401"	"3403"	"3405"	"3407"
##	[118]	"3411"	"3412"	"3413"	"3414"	"3415"	"3416"	"3417"	"3418"	"3419"
##	[127]	"3420"	"3421"	"3422"	"3423"	"3424"	"3425"	"3426"	"3427"	"3428"
##	[136]	"3429"	"3430"	"3431"	"3432"	"3433"	"3434"	"3435"	"3436"	"3437"
##	[145]	"3438"	"3439"	"3440"	"3441"	"3442"	"3443"	"3446"	"3447"	"3448"
##	[154]	"3449"	"3450"	"3451"	"3452"	"3453"	"3454"	"0401"	"0402"	"0403"
##	[163]	"0412"	"0414"	"0415"	"0417"	"0418"	"0419"	"0420"	"0423"	"0425"
##	[172]	"0426"	"0427"	"0428"	"0429"	"0430"	"0432"	"0434"	"0435"	"0436"
##	[181]	"0437"	"0438"	"0439"	"0441"	"0499"	"05"	"0501"	"0502"	"0511"
##	[190]	"0512"	"0513"	"0514"	"0515"	"0516"	"0517"	"0518"	"0519"	"0520"
##	[199]	"0521"	"0522"	"0528"	"0529"	"0532"	"0533"	"0534"	"0536"	"0538"
##	[208]	"0540"	"0541"	"0542"	"0543"	"0544"	"0545"	"0599"	"06"	"3801"
##	[217]	"3802"	"3803"	"3804"	"3805"	"3806"	"3807"	"3808"	"3811"	"3812"
##	[226]	"3813"	"3814"	"3815"	"3816"	"3817"	"3818"	"3819"	"3820"	"3821"
##	[235]	"3822"	"3823"	"3824"	"3825"	"0601"	"0602"	"0604"	"0605"	"0612"
##	[244]	"0615"	"0616"	"0617"	"0618"	"0619"	"0620"	"0621"	"0622"	"0623"
##	[253]	"0624"	"0625"	"0626"	"0627"	"0628"	"0631"	"0632"	"0633"	"0699"
##	[262]	"38"	"07"	"0701"	"0702"	"0703"	"0704"	"0705"	"0706"	"0707"
## ##	[262] [271]	"38" "0708"	"07" "0709"	"0701" "0710"	"0702" "0711"	"0703" "0712"	"0704" "0713"			
								"0705"	"0706"	"0707"
##	[271]	"0708"	"0709"	"0710"	"0711"	"0712"	"0713"	"0705" "0714"	"0706" "0715"	"0707" "0716"
## ##	[271] [280]	"0708" "0716u"	"0709" "0717"	"0710" "0718"	"0711" "0719"	"0712" "0720"	"0713" "0721"	"0705" "0714" "0722"	"0706" "0715" "0723"	"0707" "0716" "0724"
## ## ##	[271] [280] [289]	"0708" "0716u" "0725"	"0709" "0717" "0726"	"0710" "0718" "0727"	"0711" "0719" "0728"	"0712" "0720" "0729"	"0713" "0721" "0799"	"0705" "0714" "0722" "08"	"0706" "0715" "0723" "0805"	"0707" "0716" "0724" "0806"
## ## ## ##	[271] [280] [289] [298]	"0708" "0716u" "0725" "0807"	"0709" "0717" "0726" "0811"	"0710" "0718" "0727" "0814"	"0711" "0719" "0728" "0815"	"0712" "0720" "0729" "0817"	"0713" "0721" "0799" "0819"	"0705" "0714" "0722" "08" "0821"	"0706" "0715" "0723" "0805" "0822"	"0707" "0716" "0724" "0806" "0826"
## ## ## ##	[271] [280] [289] [298] [307] [316]	"0708" "0716u" "0725" "0807" "0827"	"0709" "0717" "0726" "0811" "0828"	"0710" "0718" "0727" "0814" "0829"	"0711" "0719" "0728" "0815" "0830"	"0712" "0720" "0729" "0817" "0831"	"0713" "0721" "0799" "0819" "0833"	"0705" "0714" "0722" "08" "0821" "0834"	"0706" "0715" "0723" "0805" "0822" "0899"	"0707" "0716" "0724" "0806" "0826" "42"
## ## ## ## ##	[271] [280] [289] [298] [307]	"0708" "0716u" "0725" "0807" "0827" "09"	"0709" "0717" "0726" "0811" "0828" "4201"	"0710" "0718" "0727" "0814" "0829" "4202"	"0711" "0719" "0728" "0815" "0830" "4203"	"0712" "0720" "0729" "0817" "0831" "4204"	"0713" "0721" "0799" "0819" "0833" "4205"	"0705" "0714" "0722" "08" "0821" "0834" "4206"	"0706" "0715" "0723" "0805" "0822" "0899" "4207"	"0707" "0716" "0724" "0806" "0826" "42" "4211"
## ## ## ## ##	[271] [280] [289] [298] [307] [316] [325] [334]	"0708" "0716u" "0725" "0807" "0827" "09" "4212" "4221"	"0709" "0717" "0726" "0811" "0828" "4201" "4213" "4222"	"0710" "0718" "0727" "0814" "0829" "4202" "4214"	"0711" "0719" "0728" "0815" "0830" "4203" "4215"	"0712" "0720" "0729" "0817" "0831" "4204" "4216" "4225"	"0713" "0721" "0799" "0819" "0833" "4205" "4217"	"0705" "0714" "0722" "08" "0821" "0834" "4206" "4218"	"0706" "0715" "0723" "0805" "0822" "0899" "4207" "4219" "4228"	"0707" "0716" "0724" "0806" "0826" "42" "4211" "4220"
## ## ## ## ## ##	[271] [280] [289] [298] [307] [316] [325]	"0708" "0716u" "0725" "0807" "0827" "09" "4212"	"0709" "0717" "0726" "0811" "0828" "4201" "4213" "4222" "0904"	"0710" "0718" "0727" "0814" "0829" "4202" "4214" "4223"	"0711" "0719" "0728" "0815" "0830" "4203" "4215" "4224" "0911"	"0712" "0720" "0729" "0817" "0831" "4204" "4216"	"0713" "0721" "0799" "0819" "0833" "4205" "4217" "4226" "0914"	"0705" "0714" "0722" "08" "0821" "0834" "4206" "4218" "4227"	"0706" "0715" "0723" "0805" "0822" "0899" "4207" "4219"	"0707" "0716" "0724" "0806" "0826" "42" "4211" "4220" "0901"
## ## ## ## ## ##	[271] [280] [289] [298] [307] [316] [325] [334] [343]	"0708" "0716u" "0725" "0807" "0827" "09" "4212" "4221" "0903"	"0709" "0717" "0726" "0811" "0828" "4201" "4213" "4222"	"0710" "0718" "0727" "0814" "0829" "4202" "4214" "4223" "0906"	"0711" "0719" "0728" "0815" "0830" "4203" "4215" "4224"	"0712" "0720" "0729" "0817" "0831" "4204" "4216" "4225" "0912"	"0713" "0721" "0799" "0819" "0833" "4205" "4217" "4226"	"0705" "0714" "0722" "08" "0821" "0834" "4206" "4218" "4227"	"0706" "0715" "0723" "0805" "0822" "0899" "4207" "4219" "4228" "0919"	"0707" "0716" "0724" "0806" "0826" "42" "4211" "4220" "0901" "0920"
## ## ## ## ## ##	[271] [280] [289] [298] [307] [316] [325] [334] [343] [352]	"0708" "0716u" "0725" "0807" "0827" "09" "4212" "4221" "0903" "0921"	"0709" "0717" "0726" "0811" "0828" "4201" "4213" "4222" "0904" "0922"	"0710" "0718" "0727" "0814" "0829" "4202" "4214" "4223" "0906" "0923"	"0711" "0719" "0728" "0815" "0830" "4203" "4215" "4224" "0911" "0924"	"0712" "0720" "0729" "0817" "0831" "4204" "4216" "4225" "0912" "0926"	"0713" "0721" "0799" "0819" "0833" "4205" "4217" "4226" "0914" "0928"	"0705" "0714" "0722" "08" "0821" "0834" "4206" "4218" "4227" "0918"	"0706" "0715" "0723" "0805" "0822" "0899" "4207" "4219" "4228" "0919"	"0707" "0716" "0724" "0806" "0826" "42" "4211" "4220" "0901" "0920" "0933"
## ## ## ## ## ## ##	[271] [280] [289] [298] [307] [316] [325] [334] [343] [352] [361]	"0708" "0716u" "0725" "0807" "0827" "09" "4212" "4221" "0903" "0921" "0935"	"0709" "0717" "0726" "0811" "0828" "4201" "4213" "4222" "0904" "0922" "0937"	"0710" "0718" "0727" "0814" "0829" "4202" "4214" "4223" "0906" "0923" "0938"	"0711" "0719" "0728" "0815" "0830" "4203" "4215" "4224" "0911" "0924" "0940"	"0712" "0720" "0729" "0817" "0831" "4204" "4216" "4225" "0912" "0926" "0941"	"0713" "0721" "0799" "0819" "0833" "4205" "4217" "4226" "0914" "0928" "0999"	"0705" "0714" "0722" "08" "0821" "0834" "4206" "4218" "4227" "0918" "0929" "10"	"0706" "0715" "0723" "0805" "0822" "0899" "4207" "4219" "4228" "0919" "0932" "1001"	"0707" "0716" "0724" "0806" "0826" "42" "4211" "4220" "0901" "0920" "0933" "1002"
## ## ## ## ## ## ##	[271] [280] [289] [298] [307] [316] [325] [334] [343] [352] [361] [370]	"0708" "0716u" "0725" "0807" "0827" "09" "4212" "4221" "0903" "0921" "0935" "1003"	"0709" "0717" "0726" "0811" "0828" "4201" "4213" "4222" "0904" "0922" "0937" "1004"	"0710" "0718" "0727" "0814" "0829" "4202" "4214" "4223" "0906" "0923" "0938" "1014"	"0711" "0719" "0728" "0815" "0830" "4203" "4215" "4224" "0911" "0924" "0940" "1017"	"0712" "0720" "0729" "0817" "0831" "4204" "4216" "4225" "0912" "0926" "0941" "1018"	"0713" "0721" "0799" "0819" "0833" "4205" "4217" "4226" "0914" "0928" "0999" "1021"	"0705" "0714" "0722" "08" "0821" "0834" "4206" "4218" "4227" "0918" "0929" "10" "1026"	"0706" "0715" "0723" "0805" "0822" "0899" "4207" "4219" "4228" "0919" "0932" "1001" "1027"	"0707" "0716" "0724" "0806" "0826" "42" "4211" "4220" "0901" "0920" "0933" "1002" "1029"
## ## ## ## ## ## ##	[271] [280] [289] [298] [307] [316] [325] [334] [343] [352] [361] [370] [379] [388]	"0708" "0716u" "0725" "0807" "0827" "09" "4212" "4221" "0903" "0921" "0935" "1003" "1032"	"0709" "0717" "0726" "0811" "0828" "4201" "4213" "4222" "0904" "0922" "1004" "1004" "1034"	"0710" "0718" "0727" "0814" "0829" "4202" "4214" "4223" "0906" "0923" "0938" "1014" "1037"	"0711" "0719" "0728" "0815" "0830" "4203" "4215" "4224" "0911" "0924" "1017" "1046"	"0712" "0720" "0729" "0817" "0831" "4204" "4216" "4225" "0912" "0926" "0941" "1018" "1099"	"0713" "0721" "0799" "0819" "0833" "4205" "4217" "4226" "0914" "0928" "0999" "1021" "11"	"0705" "0714" "0722" "08" "0821" "0834" "4206" "4218" "4227" "0918" "0929" "100" "1026" "1101"	"0706" "0715" "0723" "0805" "0822" "0899" "4207" "4219" "4228" "0919" "0932" "1001" "1027" "1102"	"0707" "0716" "0724" "0806" "0826" "42" "4211" "4220" "0901" "0920" "0933" "1002" "1029" "1103"
## ## ## ## ## ## ## ##	[271] [280] [289] [298] [307] [316] [325] [334] [343] [352] [361] [370] [379]	"0708" "0716u" "0725" "0807" "0827" "09" "4212" "4221" "0903" "0921" "0935" "1003" "1032" "1106"	"0709" "0717" "0726" "0811" "0828" "4201" "4213" "4222" "0904" "0922" "0937" "1004" "1034" "1108"	"0710" "0718" "0727" "0814" "0829" "4202" "4214" "4223" "0906" "0923" "0938" "1014" "1037" "1111"	"0711" "0719" "0728" "0815" "0830" "4203" "4215" "4224" "0911" "0924" "0940" "1017" "1046" "1112"	"0712" "0720" "0729" "0817" "0831" "4204" "4216" "4225" "0912" "0926" "0941" "1018" "1099" "1114"	"0713" "0721" "0799" "0819" "0833" "4205" "4217" "4226" "0914" "0928" "0999" "1021" "11" "1119"	"0705" "0714" "0722" "08" "0821" "0834" "4206" "4218" "4227" "0918" "0929" "10" "1026" "1101" "1120"	"0706" "0715" "0723" "0805" "0822" "0899" "4207" "4219" "4228" "0919" "0932" "1001" "1027" "1102" "11121"	"0707" "0716" "0724" "0806" "0826" "42" "4211" "4220" "0901" "0920" "0933" "1002" "1029" "1103" "11122"
## ## ## ## ## ## ## ##	[271] [280] [289] [298] [307] [316] [325] [334] [343] [352] [361] [370] [379] [388] [397]	"0708" "0716u" "0725" "0807" "0827" "09" "4212" "4221" "0903" "0921" "0935" "1003" "1032" "1106" "1124"	"0709" "0717" "0726" "0811" "0828" "4201" "4213" "4222" "0904" "0922" "0937" "1004" "1034" "1108" "1127"	"0710" "0718" "0727" "0814" "0829" "4202" "4214" "4223" "0906" "0923" "0938" "1014" "1037" "1111" "1129"	"0711" "0719" "0728" "0815" "0830" "4203" "4215" "4224" "0911" "0924" "0940" "1017" "1046" "1112" "1130"	"0712" "0720" "0729" "0817" "0831" "4204" "4216" "4225" "0912" "0926" "0941" "1018" "1099" "1114" "1133"	"0713" "0721" "0799" "0819" "0833" "4205" "4217" "4226" "0914" "0928" "0999" "1021" "11" "1119" "1134"	"0705" "0714" "0722" "08" "0821" "0834" "4206" "4218" "4227" "0918" "0929" "10" "1101" "1120" "1135"	"0706" "0715" "0723" "0805" "0822" "0899" "4207" "4219" "4228" "0919" "0932" "1001" "1027" "1102" "11121" "1141"	"0707" "0716" "0724" "0806" "0826" "42" "4211" "4220" "0901" "0920" "0933" "1002" "11029" "1103" "11122" "1142"
## ## ## ## ## ## ## ## ##	[271] [280] [289] [298] [307] [316] [325] [334] [343] [352] [361] [370] [379] [388] [397] [406]	"0708" "0716u" "0725" "0807" "0827" "09" "4212" "4221" "0903" "0921" "0935" "1003" "1106" "1124" "1144"	"0709" "0717" "0726" "0811" "0828" "4201" "4213" "4222" "0904" "0922" "0937" "1004" "1108" "1127" "1145" "12"	"0710" "0718" "0727" "0814" "0829" "4202" "4214" "4223" "0906" "0923" "0938" "1014" "1137" "1111" "1129" "1146" "4601"	"0711" "0719" "0728" "0815" "0830" "4203" "4215" "4224" "0911" "0924" "1017" "1046" "1112" "1130" "1149" "4602"	"0712" "0720" "0729" "0817" "0831" "4204" "4216" "4225" "0912" "0926" "0941" "1018" "1018" "1114" "1133" "1151" "4611"	"0713" "0721" "0799" "0819" "0833" "4205" "4217" "4226" "0914" "0928" "0999" "1021" "11" "1119" "1134" "1154"	"0705" "0714" "0722" "08" "0821" "0834" "4206" "4218" "4227" "0918" "0929" "10" "11020" "11120" "1135" "1159" "4613"	"0706" "0715" "0723" "0805" "0822" "0899" "4207" "4219" "4228" "0919" "0932" "1001" "1027" "1102" "1121" "1141" "1160" "4614"	"0707" "0716" "0724" "0806" "0826" "42" "4211" "4220" "0901" "0920" "1002" "1103" "1102" "1142" "1142" "1199"
######################################	[271] [280] [289] [298] [307] [316] [325] [334] [343] [352] [361] [370] [379] [388] [397] [406] [415]	"0708" "0716u" "0725" "0807" "0827" "09" "4212" "4221" "0903" "0921" "0935" "1003" "1106" "1124" "1144" "46"	"0709" "0717" "0726" "0811" "0828" "4201" "4213" "4222" "0904" "0922" "0937" "1004" "1108" "1127" "1145"	"0710" "0718" "0727" "0814" "0829" "4202" "4214" "4223" "0906" "0923" "0938" "1014" "1037" "1111" "1129" "1146"	"0711" "0719" "0728" "0815" "0830" "4203" "4215" "4224" "0911" "0924" "0940" "1017" "1046" "1112" "1130" "1149"	"0712" "0720" "0729" "0817" "0831" "4204" "4216" "4225" "0912" "0926" "0941" "1018" "1099" "1114" "1133" "1151"	"0713" "0721" "0799" "0819" "0833" "4205" "4217" "4226" "0914" "0928" "0999" "1021" "111" "1119" "1134" "1154" "4612"	"0705" "0714" "0722" "08" "0821" "0834" "4206" "4218" "4227" "0918" "0929" "10" "1101" "1120" "1135" "1159"	"0706" "0715" "0723" "0805" "0822" "0899" "4207" "4219" "4228" "0919" "0932" "1001" "1102" "1102" "11121" "1141" "1160"	"0707" "0716" "0724" "0806" "0826" "42" "4211" "4220" "0901" "0920" "1029" "1103" "1122" "1142" "1199" "4615"
## ## ## ## ## ## ## ## ##	[271] [280] [289] [298] [307] [316] [325] [334] [352] [361] [370] [379] [388] [397] [406] [415] [424] [433]	"0708" "0716u" "0725" "0807" "0827" "09" "4212" "4221" "0903" "0921" "0935" "1003" "1106" "1124" "1144" "46" "4616" "4625"	"0709" "0717" "0726" "0811" "0828" "4201" "4213" "4222" "0904" "0922" "1004" "1108" "1127" "1145" "12" "4617"	"0710" "0718" "0727" "0814" "0829" "4202" "4214" "4223" "0906" "0923" "0938" "1014" "1037" "1111" "1129" "14601" "4601" "4618" "4627"	"0711" "0719" "0728" "0815" "0830" "4203" "4215" "4224" "0911" "0924" "0940" "1017" "1046" "1112" "1130" "149" "4602" "4619" "4628"	"0712" "0720" "0729" "0817" "0831" "4204" "4216" "4225" "0912" "0926" "1018" "1018" "1114" "1133" "1151" "4611" "4620" "4629"	"0713" "0721" "0799" "0819" "0833" "4205" "4217" "4226" "0914" "0928" "0999" "1021" "11" "1119" "1134" "4612" "4630"	"0705" "0714" "0722" "08" "0821" "0834" "4206" "4218" "4227" "0918" "0929" "10" "1026" "1101" "1120" "1135" "4613" "4622" "4631"	"0706" "0715" "0723" "0805" "0822" "0899" "4207" "4219" "4228" "0919" "0932" "1001" "1027" "1102" "1121" "1141" "1160" "4614" "4623" "4632"	"0707" "0716" "0724" "0806" "0826" "42" "4211" "4220" "0901" "0920" "1029" "1103" "1122" "1142" "1199" "4615" "4624"
######################################	[271] [280] [289] [298] [307] [316] [325] [334] [352] [361] [370] [379] [388] [397] [406] [415] [424]	"0708" "0716u" "0725" "0807" "0827" "09" "4212" "4221" "0903" "0921" "0935" "1003" "1032" "1106" "1124" "1144" "4616" "4625" "4634"	"0709" "0717" "0726" "0811" "0828" "4201" "4213" "4222" "0904" "0922" "0937" "1004" "1108" "1127" "1145" "12" "4617" "4626" "4635"	"0710" "0718" "0727" "0814" "0829" "4202" "4214" "4223" "0906" "0923" "0938" "1014" "1037" "1111" "1129" "1146" "4601" "4618" "4636"	"0711" "0719" "0728" "0815" "0830" "4203" "4215" "4224" "0911" "0924" "0940" "1017" "1046" "1112" "1130" "149" "4602" "4619" "4628" "4637"	"0712" "0720" "0729" "0817" "0831" "4204" "4216" "4225" "0912" "0926" "0941" "1018" "1099" "1114" "4133" "1151" "4611" "4620"	"0713" "0721" "0799" "0819" "0833" "4205" "4217" "4226" "0914" "0928" "0999" "1021" "11" "1119" "1134" "1154" "4612"	"0705" "0714" "0722" "08" "0821" "0834" "4206" "4218" "4227" "0918" "0929" "10" "1026" "1101" "1120" "1135" "4613" "4622" "4631"	"0706" "0715" "0723" "0805" "0822" "0899" "4207" "4219" "4228" "0919" "0932" "1001" "1027" "1102" "1141" "1160" "4614" "4623" "4632" "4641"	"0707" "0716" "0724" "0806" "0826" "42" "4211" "4220" "0901" "0920" "0933" "1002" "1029" "1103" "1122" "1142" "1199" "4615" "4624" "4633"
######################################	[271] [280] [289] [298] [307] [316] [325] [334] [352] [361] [370] [379] [388] [397] [406] [415] [424] [433] [442]	"0708" "0716u" "0725" "0807" "0827" "09" "4212" "4221" "0903" "0921" "0935" "1003" "1106" "1124" "1144" "46" "4616" "4625"	"0709" "0717" "0726" "0811" "0828" "4201" "4213" "4222" "0904" "0922" "0937" "1004" "1108" "1127" "1145" "12" "4617" "4626"	"0710" "0718" "0727" "0814" "0829" "4202" "4214" "4223" "0906" "0923" "0938" "1014" "1037" "1111" "1129" "14601" "4601" "4618" "4627"	"0711" "0719" "0728" "0815" "0830" "4203" "4215" "4224" "0911" "0924" "0940" "1017" "1046" "1112" "1130" "1149" "4602" "4619" "4628" "4637" "4646"	"0712" "0720" "0729" "0817" "0831" "4204" "4216" "4225" "0912" "0926" "0941" "1018" "1099" "1114" "1133" "1151" "4611" "4620" "4629" "4638" "4647"	"0713" "0721" "0799" "0819" "0833" "4205" "4217" "4226" "0914" "0928" "0999" "1021" "11" "1119" "1134" "1154" "4612" "4621" "4630" "4639"	"0705" "0714" "0722" "08" "0821" "0834" "4206" "4218" "4227" "0918" "0929" "10" "1026" "1101" "1120" "1135" "4613" "4622" "4631"	"0706" "0715" "0723" "0805" "0822" "0899" "4207" "4219" "4228" "0919" "0932" "1001" "1027" "1102" "1121" "1141" "1160" "4614" "4623" "4632"	"0707" "0716" "0724" "0806" "0826" "42" "4211" "4220" "0901" "0920" "0933" "1002" "1029" "1103" "1122" "1142" "1199" "4615" "4624" "4633" "4642"
######################################	[271] [280] [289] [298] [307] [316] [325] [334] [343] [352] [361] [370] [388] [397] [406] [415] [424] [433] [442] [451] [460]	"0708" "0716u" "0725" "0807" "0827" "09" "4212" "4221" "0903" "0921" "0935" "1003" "1106" "1124" "1144" "4616" "4625" "4634" "4643" "1201"	"0709" "0717" "0726" "0811" "0828" "4201" "4213" "4222" "0904" "0922" "1004" "1108" "1127" "1145" "12" "4617" "4626" "4635" "4644" "1211"	"0710" "0718" "0727" "0814" "0829" "4202" "4214" "4223" "0906" "0923" "0938" "1014" "1137" "1111" "1129" "14618" "4627" "4636" "4645"	"0711" "0719" "0728" "0815" "0830" "4203" "4215" "4224" "0911" "0924" "1017" "1046" "1112" "1130" "1149" "4602" "4619" "4628" "4637" "4646" "1216"	"0712" "0720" "0729" "0817" "0831" "4204" "4216" "4225" "0912" "0926" "0941" "1018" "1018" "1114" "1133" "1151" "4611" "4620" "4629" "4638"	"0713" "0721" "0799" "0819" "0833" "4205" "4217" "4226" "0914" "0928" "0999" "1021" "11" "1119" "1134" "1154" "4612" "4630" "4639" "4648"	"0705" "0714" "0722" "08" "0821" "0834" "4206" "4218" "4227" "0918" "0929" "10" "1101" "1120" "1135" "4613" "4640" "4649" "1222"	"0706" "0715" "0723" "0805" "0822" "0899" "4207" "4219" "4228" "0919" "1001" "1027" "1102" "1141" "1160" "4614" "4623" "4632" "4641" "4650"	"0707" "0716" "0724" "0806" "0826" "42" "4211" "4220" "0901" "0920" "1029" "1103" "11029" "1142" "1142" "1199" "4615" "4624" "4633" "4642" "4651"
######################################	[271] [280] [289] [298] [307] [316] [325] [334] [343] [352] [361] [370] [379] [388] [397] [406] [415] [424] [423] [442] [451]	"0708" "0716u" "0725" "0807" "0827" "09" "4212" "4221" "0903" "0921" "0935" "1003" "1106" "1124" "1144" "4616" "4625" "4634" "4643" "1201" "1227"	"0709" "0717" "0726" "0811" "0828" "4201" "4213" "4222" "0904" "0922" "0937" "1004" "1108" "1127" "1145" "12" "4617" "4626" "4635" "4644" "1211" "1228"	"0710" "0718" "0727" "0814" "0829" "4202" "4214" "4223" "0906" "0923" "0938" "1014" "1137" "1111" "1129" "1468" "4627" "4636" "4645" "1214"	"0711" "0719" "0728" "0815" "0830" "4203" "4215" "4224" "0911" "0924" "1017" "1046" "1112" "1130" "149" "4602" "4619" "4628" "4637" "4646" "1216" "1231"	"0712" "0720" "0729" "0817" "0831" "4204" "4216" "4225" "0912" "0926" "0941" "1018" "1018" "1114" "1133" "1151" "4611" "4620" "4629" "4638" "4647" "1219"	"0713" "0721" "0799" "0819" "0833" "4205" "4217" "4226" "0914" "0928" "0999" "1021" "11" "1119" "1134" "1154" "4612" "4630" "4639" "4648" "1221"	"0705" "0714" "0722" "08" "0821" "0834" "4206" "4218" "4227" "0918" "0929" "10" "1101" "1120" "1135" "4613" "4640" "4649" "1222" "1234"	"0706" "0715" "0723" "0805" "0822" "0899" "4207" "4219" "4228" "0919" "1001" "1027" "1102" "1141" "1160" "4614" "4623" "4632" "4641" "4650" "1223"	"0707" "0716" "0724" "0806" "0826" "42" "4211" "4220" "0901" "0920" "1029" "1103" "1122" "1142" "1142" "4633" "4642" "4651" "1224"
######################################	[271] [280] [289] [298] [307] [316] [325] [334] [343] [352] [361] [370] [379] [388] [397] [406] [415] [424] [433] [442] [451] [460] [469]	"0708" "0716u" "0725" "0807" "0827" "09" "4212" "4221" "0903" "0921" "0935" "1003" "1106" "1124" "1144" "46" "4616" "4625" "4634" "1201" "1227" "1241"	"0709" "0717" "0726" "0811" "0828" "4201" "4213" "4222" "0904" "0922" "0937" "1004" "1108" "1127" "1145" "12" "4617" "4626" "4635" "4644" "1211" "1228" "1242"	"0710" "0718" "0727" "0814" "0829" "4202" "4214" "4223" "0906" "0923" "0938" "1014" "1137" "1111" "1129" "1468" "4636" "4636" "4636" "1214" "1230"	"0711" "0719" "0728" "0815" "0830" "4203" "4215" "4224" "0911" "0924" "1017" "1046" "1112" "1130" "4602" "4619" "4628" "4646" "1216" "1231" "1244"	"0712" "0720" "0729" "0817" "0831" "4204" "4216" "4225" "0912" "0926" "0941" "1018" "1018" "1114" "4611" "4620" "4629" "4638" "4647" "1219" "1232" "1245"	"0713" "0721" "0799" "0819" "0833" "4205" "4217" "4226" "0914" "0928" "0999" "1021" "111" "1119" "1134" "4612" "4630" "4639" "4648" "1221" "1233" "1246"	"0705" "0714" "0722" "08" "0821" "0834" "4206" "4218" "4227" "0918" "0929" "10" "11026" "1101" "1120" "1159" "4613" "4640" "4649" "1222" "1234" "1247"	"0706" "0715" "0723" "0805" "0822" "0899" "4207" "4219" "4228" "0919" "1001" "1027" "1102" "1141" "1160" "4614" "4650" "1223" "1235" "1248"	"0707" "0716" "0724" "0806" "0826" "42" "4211" "4220" "0901" "0920" "1029" "1103" "1122" "1142" "1149" "4615" "4624" "4633" "4642" "1224" "1238" "1249"
######################################	[271] [280] [289] [298] [307] [316] [325] [334] [343] [352] [361] [370] [388] [397] [406] [415] [424] [433] [442] [451] [460] [469] [478]	"0708" "0716u" "0725" "0807" "0827" "09" "4212" "4221" "0903" "0921" "0935" "1003" "1106" "1124" "1144" "46" "4616" "4625" "4634" "4643" "1201" "1227" "1241" "1250"	"0709" "0717" "0726" "0811" "0828" "4201" "4213" "4222" "0904" "0922" "0937" "1004" "1108" "1127" "1145" "12" "4617" "4626" "4635" "4644" "1211" "1228"	"0710" "0718" "0727" "0814" "0829" "4202" "4214" "4223" "0906" "0923" "0938" "1014" "1037" "1111" "1129" "1146" "4601" "4618" "4645" "4645" "1214" "1230" "1243"	"0711" "0719" "0728" "0815" "0830" "4203" "4215" "4224" "0911" "0924" "1017" "1046" "1112" "1130" "149" "4602" "4619" "4628" "4637" "4646" "1216" "1231"	"0712" "0720" "0729" "0817" "0831" "4204" "4216" "4225" "0912" "0926" "0941" "1018" "1114" "1133" "1151" "4611" "4620" "4629" "4638" "4647" "1219" "1232"	"0713" "0721" "0799" "0819" "0833" "4205" "4217" "4226" "0914" "0928" "0999" "1021" "111" "1119" "1134" "1154" "4630" "4639" "4638" "1221" "1233"	"0705" "0714" "0722" "08" "0821" "0834" "4206" "4218" "4227" "0918" "0929" "10" "1101" "1120" "1135" "4613" "4640" "4649" "1222" "1234"	"0706" "0715" "0723" "0805" "0822" "0899" "4207" "4219" "4228" "0919" "1001" "1027" "1102" "11121" "1141" "1160" "4614" "4623" "4632" "4650" "1223" "1235"	"0707" "0716" "0724" "0806" "0826" "42" "4211" "4220" "0901" "0920" "1029" "1103" "1122" "1142" "1199" "4615" "4624" "4633" "4642" "4651" "1224" "1238"

```
## [505] "1412"
                  "1413"
                           "1416"
                                   "1417"
                                            "1418"
                                                     "1419"
                                                              "1420"
                                                                       "1421"
                                                                               "1422"
   [514] "1424"
                  "1426"
                           "1428"
                                    "1429"
                                            "1430"
                                                     "1431"
                                                              "1432"
                                                                       "1433"
                                                                                "1438"
                           "1443"
                  "1441"
                                    "1444"
                                            "1445"
                                                     "1448"
                                                              "1449"
                                                                       "1499"
                                                                                "15"
   [523] "1439"
   [532] "1501"
                  "1502"
                           "1503"
                                    "1504"
                                            "1505"
                                                     "1506"
                                                              "1507"
                                                                       "1511"
                                                                                "1514"
   [541] "1515"
                  "1516"
                           "1517"
                                    "1519"
                                            "1520"
                                                     "1523"
                                                              "1524"
                                                                       "1525"
                                                                                "1526"
   [550] "1527"
                  "1528"
                           "1529"
                                    "1531"
                                            "1532"
                                                     "1534"
                                                              "1535"
                                                                       "1539"
                                                                               "1543"
##
   [559] "1545"
                  "1546"
                           "1547"
                                    "1548"
                                            "1551"
                                                     "1554"
                                                              "1556"
                                                                       "1557"
                                                                               "1560"
##
   [568] "1563"
                           "1567"
                                    "1569"
                                            "1571"
                                                     "1572"
                  "1566"
                                                              "1573"
                                                                       "1576"
                                                                                "1577"
##
   [577] "1578"
                  "1579"
                           "1599"
                                    "50"
                                             "16"
                                                     "5001"
                                                              "5004"
                                                                       "5005"
                                                                                "5006"
   [586] "5007"
                  "5011"
                           "5012"
                                    "5013"
                                            "5014"
                                                     "5015"
                                                              "5016"
                                                                       "5017"
                                                                               "5018"
##
   [595] "5019"
                  "5020"
                           "5021"
                                    "5022"
                                            "5023"
                                                     "5024"
                                                              "5025"
                                                                       "5026"
                                                                                "5027"
   [604] "5028"
                  "5029"
                           "5030"
                                    "5031"
                                            "5032"
                                                     "5033"
                                                              "5034"
                                                                       "5035"
                                                                                "5036"
##
   [613] "5037"
                  "5038"
                           "5039"
                                    "5040"
                                            "5041"
                                                     "5042"
                                                              "5043"
                                                                       "5044"
                                                                               "5045"
##
                                                     "5051"
                                                              "5052"
   [622] "5046"
                  "5047"
                           "5048"
                                    "5049"
                                            "5050"
                                                                       "5053"
                                                                               "5054"
##
                  "5056"
   [631] "5055"
                           "5057"
                                    "5058"
                                            "5059"
                                                     "5060"
                                                              "5061"
                                                                       "1601"
                                                                                "1612"
##
   [640] "1613"
                           "1620"
                                                              "1627"
##
                  "1617"
                                    "1621"
                                            "1622"
                                                     "1624"
                                                                       "1630"
                                                                                "1632"
##
   [649] "1633"
                  "1634"
                           "1635"
                                    "1636"
                                            "1638"
                                                     "1640"
                                                              "1644"
                                                                       "1645"
                                                                                "1648"
   [658] "1653"
                  "1657"
                           "1662"
                                    "1663"
                                            "1664"
                                                     "1665"
                                                                       "17"
                                                                                "1702"
##
                                                              "1699"
   [667] "1703"
                  "1711"
                           "1714"
                                    "1717"
                                            "1718"
                                                     "1719"
                                                              "1721"
                                                                       "1723"
                                                                                "1724"
##
   [676] "1725"
                  "1729"
                           "1736"
                                    "1738"
                                            "1739"
                                                     "1740"
                                                              "1742"
                                                                       "1743"
                                                                                "1744"
##
##
   [685] "1748"
                  "1749"
                           "1750"
                                    "1751"
                                            "1755"
                                                     "1756"
                                                              "1799"
                                                                       "18"
                                                                                "1804"
   [694] "1805"
                  "1806"
                           "1811"
                                    "1812"
                                            "1813"
                                                     "1814"
                                                              "1815"
                                                                       "1816"
                                                                               "1818"
## [703] "1820"
                  "1822"
                           "1824"
                                    "1825"
                                            "1826"
                                                     "1827"
                                                              "1828"
                                                                       "1832"
                                                                                "1833"
   [712] "1834"
                  "1835"
                           "1836"
                                    "1837"
                                            "1838"
                                                     "1839"
                                                              "1840"
                                                                       "1841"
                                                                                "1842"
##
   [721] "1843"
                  "1845"
                           "1848"
                                    "1849"
                                            "1850"
                                                     "1851"
                                                              "1852"
                                                                       "1853"
                                                                               "1854"
   [730] "1855"
                  "1856"
                           "1857"
                                    "1858"
                                            "1859"
                                                     "1860"
                                                              "1865"
                                                                       "1866"
                                                                                "1867"
##
   [739] "1868"
                  "1870"
                           "1871"
                                    "1874"
                                            "1875"
                                                     "1899"
                                                              "54"
                                                                       "19"
                                                                                "5401"
   [748] "5402"
                  "5403"
                           "5404"
                                    "5405"
                                            "5406"
                                                     "5411"
                                                              "5412"
                                                                       "5413"
                                                                                "5414"
   [757] "5415"
                           "5417"
                                            "5419"
                                                     "5420"
                                                                       "5422"
                  "5416"
                                    "5418"
                                                              "5421"
                                                                               "5423"
##
   [766] "5424"
                  "5425"
                           "5426"
                                    "5427"
                                            "5428"
                                                     "5429"
                                                              "5430"
                                                                       "5432"
   [775] "5434"
                  "5435"
                           "5436"
                                    "5437"
                                            "5438"
                                                     "5439"
                                                              "5440"
                                                                       "5441"
                                                                               "5442"
##
                                                     "1911"
##
   [784] "5443"
                  "5444"
                           "1901"
                                    "1902"
                                            "1903"
                                                              "1913"
                                                                       "1915"
                                                                               "1917"
   [793] "1919"
                  "1920"
                           "1921"
                                    "1922"
                                            "1923"
                                                     "1924"
                                                              "1925"
                                                                       "1926"
                                                                               "1927"
##
   [802] "1928"
                  "1929"
                           "1931"
                                    "1933"
                                            "1936"
                                                     "1938"
                                                              "1939"
                                                                       "1940"
                                                                                "1941"
##
   [811] "1942"
                  "1943"
                           "1999"
                                    "20"
                                            "2001"
                                                     "2002"
                                                              "2003"
                                                                       "2004"
                                                                               "2011"
##
##
   [820] "2012"
                  "2014"
                           "2015"
                                    "2016"
                                            "2017"
                                                     "2018"
                                                              "2019"
                                                                       "2020"
                                                                               "2021"
##
  [829] "2022"
                  "2023"
                           "2024"
                                    "2025"
                                            "2027"
                                                     "2028"
                                                              "2030"
                                                                       "2099"
                                                                               "21"
## [838] "2111"
                  "2112"
                           "2115"
                                    "2121"
                                            "2131"
                                                     "2199"
                                                              "22"
                                                                       "2211"
                                                                                "2299"
## [847] "23"
                  "2300"
                           "2311"
                                   "2321"
                                            "2399"
                                                     "25"
                                                              "2599"
                                                                       "26"
                                                                                "88"
## [856] "99"
                  "9999"
```

```
#Inntekt før/etter skatt
values[[2]]$values # 00 = Samlet inntekt, 00S=Inntekt etter skatt
```

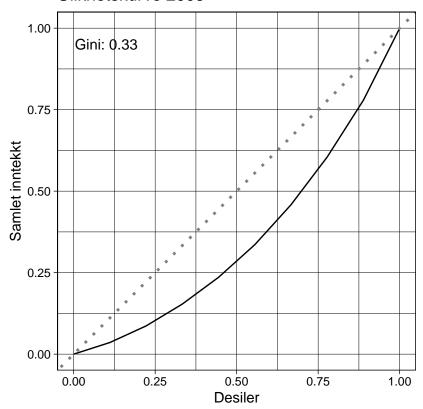
```
## [1] "00" "00S"
```

```
#Desiler
values[[3]]$values
```

```
## [1] "01" "02" "03" "04" "05" "06" "07" "08" "09" "10"
```

```
#Statistikkvariabel
values[[4]]$values
## [1] "AndelHush" "VerdiDesil" "AntHush"
#År
values[[5]]$values
## [1] "2005" "2006" "2007" "2008" "2009" "2010" "2011" "2012" "2013" "2014"
## [11] "2015" "2016" "2017" "2018" "2019" "2020"
data <- ApiData("https://data.ssb.no/api/v0/en/table/12558/",</pre>
                Tid =c("2005","2020"), # Velg årene 2005 og 2020
                Desiler=c("01", "02", "03", "04", "05", "06", "07", "08", "09", "10"), #Vi velger alle
                InntektSkatt="00", #Vi velger samlet inntekt
                ContentsCode="VerdiDesil", #Velger den høyeste verdien i desilen
                Region=c("5401","1902")) #Tromsø endret kommunenummer i 2020
# Jeg lager en ny variabel og kaller den for Plotdata, denne brukes for å hente frem tabellen med all i
Plotdata<- data[[2]]
Plot 2005 <- Plotdata%>%
  filter(Tid=='2005')%>%
  filter(value!="NA")
Plot 2005 %>%
  ggplot(aes(value), color = "Black") +
  stat_lorenz(desc = FALSE) +
  coord_fixed() +
  geom_abline(linetype = "dotted", color = "grey50", size = 1) +
  theme(plot.title = element_text(face = "bold", size = 12),
        legend.background = element_rect(fill = "white", size = 4, colour = "white"),
        legend.justification = c(0, 1),
        legend.position = c(0, 1),
        axis.ticks = element_line(colour = "grey70", size = 0.2),
        panel.grid.major = element_line(colour = "grey70", size = 0.2),
       panel.grid.minor = element_blank()) +
  labs(x = "Desiler",
       y = "Samlet inntekkt",) +
  theme_linedraw() + ggtitle("Ulikhetskurve 2005") +
  scale_color_brewer(type = "seq", palette = "Spectral") +
  annotate_ineq(Plotdata$value)
```

Ulikhetskurve 2005



```
Plot 2020<- Plotdata%>%
  filter(Tid=='2020')%>%
  filter(value!="NA")
Plot_2020 %>%
  ggplot(aes(value), color = "Black") +
  stat_lorenz(desc = FALSE) +
  coord_fixed() +
  geom_abline(linetype = "dotted", color = "grey50", size = 1) +
  theme(plot.title = element_text(face = "bold", size = 12),
        legend.background = element_rect(fill = "white", size = 4, colour = "white"),
        legend.justification = c(0, 1),
        legend.position = c(0, 1),
        axis.ticks = element_line(colour = "grey70", size = 0.2),
        panel.grid.major = element line(colour = "grey70", size = 0.2),
       panel.grid.minor = element_blank()) +
  labs(x = "Desiler",
       y = "Samlet inntekkt",) +
  theme_linedraw() + ggtitle("Ulikhetskurve 2020") +
  scale_color_brewer(type = "seq", palette = "Spectral") +
  annotate_ineq(Plotdata$value)
```

