Data Vis Final Project

Conor Desmond

2022-12-08

Per Capita Gas Consumption, 2021
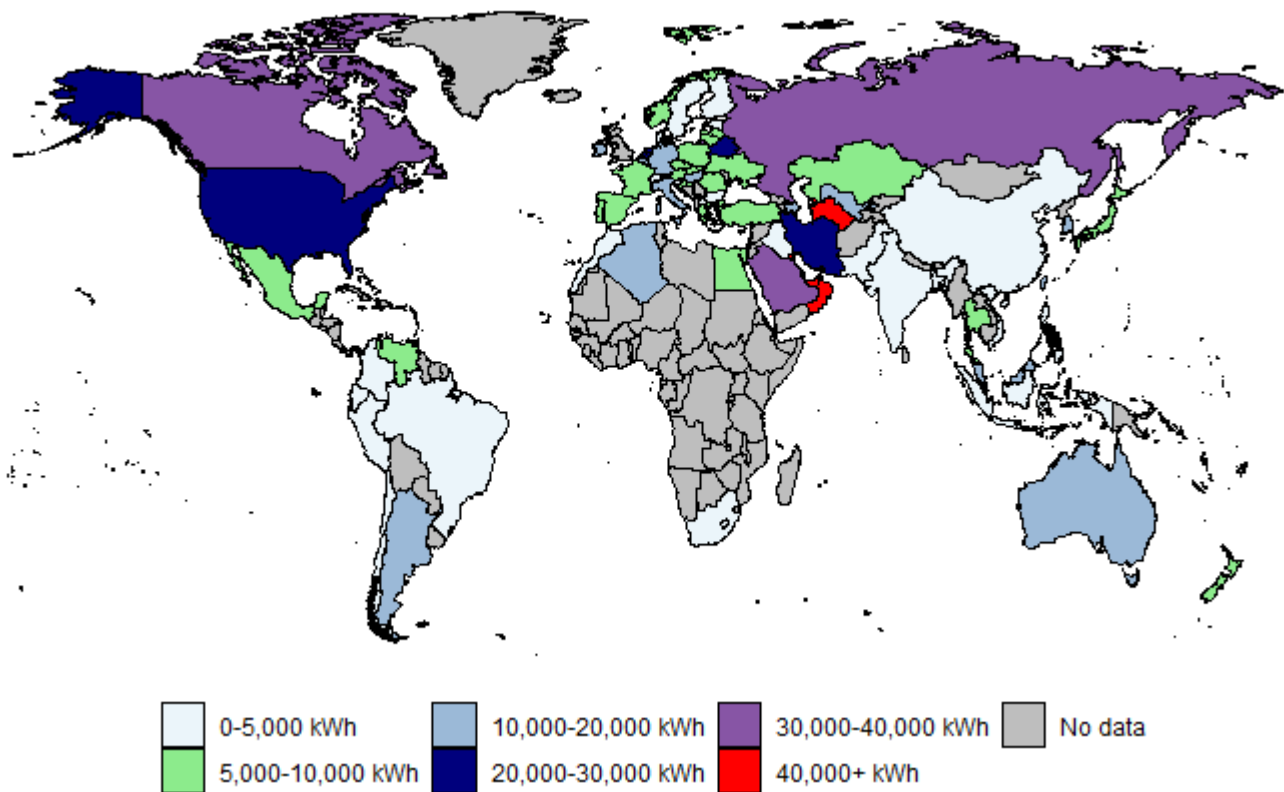
☐ 0-5,000 kWh	☐ 10,000-20,000 kWh	☐ 30,000-40,000 kWh	☐ No data
☐ 5,000-10,000 kWh	☐ 20,000-30,000 kWh	☐ 40,000+ kWh	

```
geom_path: Each group consists of only one
observation. Do you need to adjust the group
aesthetic?
geom_path: Each group consists of only one
observation. Do you need to adjust the group
aesthetic?

Rendering [---------------------] at 4.2 fps ~ eta: 24s
Rendering [---------------------] at 4.6 fps ~ eta: 21s
Rendering [>--------------------] at 4.9 fps ~ eta: 20s
Rendering [>--------------------] at 5.2 fps ~ eta: 18s
Rendering [>--------------------] at 5.4 fps ~ eta: 18s
Rendering [>--------------------] at 5.4 fps ~ eta: 17s
Rendering [>--------------------] at 5.5 fps ~ eta: 17s
Rendering [=>-------------------] at 5.5 fps ~ eta: 17s
Rendering [=>-------------------] at 5.5 fps ~ eta: 16s
Rendering [=>-------------------] at 5.6 fps ~ eta: 16s
Rendering [==>------------------] at 5.5 fps ~ eta: 16s
Rendering [==>------------------] at 5.5 fps ~ eta: 15s
Rendering [==>------------------] at 5.6 fps ~ eta: 15s
Rendering [===>-----------------] at 5.6 fps ~ eta: 15s
Rendering [===>-----------------] at 5.4 fps ~ eta: 15s
Rendering [===>-----------------] at 5.5 fps ~ eta: 15s
Rendering [===>-----------------] at 5.5 fps ~ eta: 14s
Rendering [===>-----------------] at 5.6 fps ~ eta: 14s
Rendering [====>----------------] at 5.6 fps ~ eta: 14s
Rendering [====>----------------] at 5.7 fps ~ eta: 13s
Rendering [====>----------------] at 5.6 fps ~ eta: 13s
Rendering [=====>---------------] at 5.7 fps ~ eta: 13s
Rendering [=====>---------------] at 5.7 fps ~ eta: 12s
Rendering [=====>---------------] at 5.8 fps ~ eta: 12s
Rendering [======>--------------] at 5.7 fps ~ eta: 12s
Rendering [======>--------------] at 5.7 fps ~ eta: 11s
Rendering [=======>-------------] at 5.7 fps ~ eta: 11s
Rendering [========>------------] at 5.7 fps ~ eta: 10s
Rendering [=========>-----------] at 5.7 fps ~ eta:  9s
Rendering [=========>-----------] at 5.8 fps ~ eta:  9s
Rendering [==========>----------] at 5.8 fps ~ eta:  8s
Rendering [==========>----------] at 5.8 fps ~ eta:  8s
Rendering [===========>---------] at 5.8 fps ~ eta:  7s
Rendering [===========>---------] at 5.8 fps ~ eta:  7s
Rendering [============>--------] at 5.8 fps ~ eta:  6s
Rendering [=============>-------] at 5.9 fps ~ eta:  6s
Rendering [=============>-------] at 5.9 fps ~ eta:  5s
Rendering [==============>------] at 5.8 fps ~ eta:  5s
Rendering [===============>-----] at 5.8 fps ~ eta:  4s
Rendering [================>----] at 5.8 fps ~ eta:  4s
Rendering [================>----] at 5.8 fps ~ eta:  3s
Rendering [=================>---] at 5.8 fps ~ eta:  3s
Rendering [=================>---] at 5.8 fps ~ eta:  2s
Rendering [==================>--] at 5.8 fps ~ eta:  2s
Rendering [==================>--] at 5.8 fps ~ eta:  1s
```

```
Rendering [===================>-] at 5.8 fps ~ eta:  1s
Rendering [====================>] at 5.7 fps ~ eta:  0s
Rendering [====================>] at 5.6 fps ~ eta:  0s
Rendering [====================] at 5.6 fps ~ eta:  0s



Inserting image 1 at 0.00s (1%)...
Inserting image 2 at 0.10s (2%)...
Inserting image 3 at 0.20s (3%)...
Inserting image 4 at 0.30s (4%)...
Inserting image 5 at 0.40s (5%)...
Inserting image 6 at 0.50s (6%)...
Inserting image 7 at 0.60s (7%)...
Inserting image 8 at 0.70s (8%)...
Inserting image 9 at 0.80s (9%)...
Inserting image 10 at 0.90s (10%)...
Inserting image 11 at 1.00s (11%)...
Inserting image 12 at 1.10s (12%)...
Inserting image 13 at 1.20s (13%)...
Inserting image 14 at 1.30s (14%)...
Inserting image 15 at 1.40s (15%)...
Inserting image 16 at 1.50s (16%)...
Inserting image 17 at 1.60s (17%)...
Inserting image 18 at 1.70s (18%)...
Inserting image 19 at 1.80s (19%)...
Inserting image 20 at 1.90s (20%)...
Inserting image 21 at 2.00s (21%)...
Inserting image 22 at 2.10s (22%)...
Inserting image 23 at 2.20s (23%)...
Inserting image 24 at 2.30s (24%)...
Inserting image 25 at 2.40s (25%)...
Inserting image 26 at 2.50s (26%)...
Inserting image 27 at 2.60s (27%)...
Inserting image 28 at 2.70s (28%)...
Inserting image 29 at 2.80s (29%)...
Inserting image 30 at 2.90s (30%)...
Inserting image 31 at 3.00s (31%)...
Inserting image 32 at 3.10s (32%)...
Inserting image 33 at 3.20s (33%)...
Inserting image 34 at 3.30s (34%)...
Inserting image 35 at 3.40s (35%)...
Inserting image 36 at 3.50s (36%)...
Inserting image 37 at 3.60s (37%)...
Inserting image 38 at 3.70s (38%)...
Inserting image 39 at 3.80s (39%)...
Inserting image 40 at 3.90s (40%)...
Inserting image 41 at 4.00s (41%)...
Inserting image 42 at 4.10s (42%)...
Inserting image 43 at 4.20s (43%)...
Inserting image 44 at 4.30s (44%)...
Inserting image 45 at 4.40s (45%)...
```

```
Inserting image 46 at 4.50s (46%)...
Inserting image 47 at 4.60s (47%)...
Inserting image 48 at 4.70s (48%)...
Inserting image 49 at 4.80s (49%)...
Inserting image 50 at 4.90s (50%)...
Inserting image 51 at 5.00s (51%)...
Inserting image 52 at 5.10s (52%)...
Inserting image 53 at 5.20s (53%)...
Inserting image 54 at 5.30s (54%)...
Inserting image 55 at 5.40s (55%)...
Inserting image 56 at 5.50s (56%)...
Inserting image 57 at 5.60s (57%)...
Inserting image 58 at 5.70s (58%)...
Inserting image 59 at 5.80s (59%)...
Inserting image 60 at 5.90s (60%)...
Inserting image 61 at 6.00s (61%)...
Inserting image 62 at 6.10s (62%)...
Inserting image 63 at 6.20s (63%)...
Inserting image 64 at 6.30s (64%)...
Inserting image 65 at 6.40s (65%)...
Inserting image 66 at 6.50s (66%)...
Inserting image 67 at 6.60s (67%)...
Inserting image 68 at 6.70s (68%)...
Inserting image 69 at 6.80s (69%)...
Inserting image 70 at 6.90s (70%)...
Inserting image 71 at 7.00s (71%)...
Inserting image 72 at 7.10s (72%)...
Inserting image 73 at 7.20s (73%)...
Inserting image 74 at 7.30s (74%)...
Inserting image 75 at 7.40s (75%)...
Inserting image 76 at 7.50s (76%)...
Inserting image 77 at 7.60s (77%)...
Inserting image 78 at 7.70s (78%)...
Inserting image 79 at 7.80s (79%)...
Inserting image 80 at 7.90s (80%)...
Inserting image 81 at 8.00s (81%)...
Inserting image 82 at 8.10s (82%)...
Inserting image 83 at 8.20s (83%)...
Inserting image 84 at 8.30s (84%)...
Inserting image 85 at 8.40s (85%)...
Inserting image 86 at 8.50s (86%)...
Inserting image 87 at 8.60s (87%)...
Inserting image 88 at 8.70s (88%)...
Inserting image 89 at 8.80s (89%)...
Inserting image 90 at 8.90s (90%)...
Inserting image 91 at 9.00s (91%)...
Inserting image 92 at 9.10s (92%)...
Inserting image 93 at 9.20s (93%)...
Inserting image 94 at 9.30s (94%)...
Inserting image 95 at 9.40s (95%)...
Inserting image 96 at 9.50s (96%)...
Inserting image 97 at 9.60s (97%)...
```

```
Inserting image 98 at 9.70s (98%)...
Inserting image 99 at 9.80s (99%)...
Inserting image 100 at 9.90s (100%)...
Encoding to gif... done!
```

```
#Gas Consumption Graph:
#https://ourworldindata.org/grapher/gas-consumption-by-country?tab=chart
gasConsump = read.csv(file.choose())
names(gasConsump) = c(names(gasConsump)[1:3], "Gas_Consumption")

gasConsump2 = gasConsump %>% filter(Entity %in% c("Qatar", "Russia", "United Kingdom", "United S
tates", "China", "South Africa"))

ggplot(gasConsump2, aes(Year, Gas_Consumption, color = Entity)) + theme_minimal() + geom_line()
+
  geom_point() + labs(title = "Gas Consumption", x = "", y = "") + theme(panel.grid.major.x = el
ement_blank(), panel.grid.minor.x = element_blank(),
        panel.grid.minor.y = element_blank(), panel.grid.major.y = element_line(linetype = "dash
ed")) + guides(color = guide_legend(title = "Countries")) + transition_reveal(Year) + view_follo
w()
```

```
geom_path: Each group consists of only one observation. Do you need to adjust the group
aesthetic?
geom_path: Each group consists of only one observation. Do you need to adjust the group
aesthetic?

Rendering [>-----------------------------------------------------------------] at 6 fps ~ eta: 16s
Rendering [=>----------------------------------------------------------------] at 6.1 fps ~ eta: 16s
Rendering [==>---------------------------------------------------------------] at 6 fps ~ eta: 16s
Rendering [==>---------------------------------------------------------------] at 6.1 fps ~ eta: 16s
Rendering [===>--------------------------------------------------------------] at 6 fps ~ eta: 16s
Rendering [===>--------------------------------------------------------------] at 6 fps ~ eta: 15s
Rendering [====>-------------------------------------------------------------] at 6.1 fps ~ eta: 15s
Rendering [=====>------------------------------------------------------------] at 6 fps ~ eta: 15s
Rendering [======>-----------------------------------------------------------] at 6 fps ~ eta: 15s
Rendering [=======>----------------------------------------------------------] at 6 fps ~ eta: 15s
Rendering [========>---------------------------------------------------------] at 6 fps ~ eta: 14s
Rendering [=========>--------------------------------------------------------] at 6 fps ~ eta: 14s
Rendering [==========>-------------------------------------------------------] at 6 fps ~ eta: 14s
Rendering [==========>-------------------------------------------------------] at 5.8 fps ~ eta: 14s
Rendering [==========>-------------------------------------------------------] at 5.8 fps ~ eta: 14s
Rendering [===========>------------------------------------------------------] at 5.9 fps ~ eta: 13s
Rendering [============>-----------------------------------------------------] at 5.9 fps ~ eta: 13s
Rendering [=============>----------------------------------------------------] at 5.9 fps ~ eta: 13s
Rendering [==============>---------------------------------------------------] at 5.9 fps ~ eta: 13s
Rendering [==============>---------------------------------------------------] at 5.9 fps ~ eta: 12s
Rendering [===============>--------------------------------------------------] at 5.8 fps ~ eta: 12s
Rendering [================>-------------------------------------------------] at 5.8 fps ~ eta: 12s
Rendering [=================>------------------------------------------------] at 5.8 fps ~ eta: 12s
Rendering [==================>-----------------------------------------------] at 5.8 fps ~ eta: 12s
Rendering [==================>-----------------------------------------------] at 5.8 fps ~ eta: 11s
Rendering [===================>----------------------------------------------] at 5.8 fps ~ eta: 11s
Rendering [====================>---------------------------------------------] at 5.8 fps ~ eta: 11s
Rendering [=====================>--------------------------------------------] at 5.7 fps ~ eta: 11s
Rendering [=====================>--------------------------------------------] at 5.7 fps ~ eta: 11s
Rendering [======================>-------------------------------------------] at 5.7 fps ~ eta: 10s
Rendering [=======================>------------------------------------------] at 5.7 fps ~ eta: 10s
Rendering [========================>-----------------------------------------] at 5.7 fps ~ eta: 10s
Rendering [========================>-----------------------------------------] at 5.8 fps ~ eta: 10s
Rendering [=========================>----------------------------------------] at 5.8 fps ~ eta:  9s
Rendering [==========================>---------------------------------------] at 5.8 fps ~ eta:  9s
Rendering [===========================>--------------------------------------] at 5.9 fps ~ eta:  9s
Rendering [============================>-------------------------------------] at 5.9 fps ~ eta:  8s
Rendering [============================>-------------------------------------] at 5.9 fps ~ eta:  8s
Rendering [=============================>------------------------------------] at 5.9 fps ~ eta:  8s
Rendering [==============================>-----------------------------------] at 5.9 fps ~ eta:  8s
Rendering [==============================>-----------------------------------] at 5.8 fps ~ eta:  8s
Rendering [===============================>----------------------------------] at 5.8 fps ~ eta:  7s
Rendering [================================>---------------------------------] at 5.7 fps ~ eta:  7s
Rendering [=================================>--------------------------------] at 5.7 fps ~ eta:  7s
Rendering [=================================>--------------------------------] at 5.7 fps ~ eta:  7s
Rendering [==================================>-------------------------------] at 5.7 fps ~ eta:  6s
Rendering [===================================>------------------------------] at 5.7 fps ~ eta:  6s
```

```
Rendering [======================================>-------------------] at 5.7 fps ~ eta:  6s
Rendering [======================================>------------------] at 5.7 fps ~ eta:  6s
Rendering [=======================================>-----------------] at 5.6 fps ~ eta:  6s
Rendering [========================================>----------------] at 5.5 fps ~ eta:  5s
Rendering [=========================================>---------------] at 5.4 fps ~ eta:  5s
Rendering [==========================================>--------------] at 5.3 fps ~ eta:  5s
Rendering [==========================================>--------------] at 5.2 fps ~ eta:  5s
Rendering [===========================================>-------------] at 5.2 fps ~ eta:  5s
Rendering [============================================>------------] at 5.1 fps ~ eta:  5s
Rendering [=============================================>------------] at 5 fps ~ eta:  5s
Rendering [==============================================>-----------] at 5 fps ~ eta:  4s
Rendering [==============================================>-----------] at 4.9 fps ~ eta:  4s
Rendering [===============================================>----------] at 4.8 fps ~ eta:  4s
Rendering [================================================>---------] at 4.7 fps ~ eta:  4s
Rendering [=================================================>---------] at 4.7 fps ~ eta:  4s
Rendering [=================================================>--------] at 4.6 fps ~ eta:  3s
Rendering [==================================================>-------] at 4.6 fps ~ eta:  3s
Rendering [===================================================>-------] at 4.6 fps ~ eta:  3s
Rendering [====================================================>------] at 4.5 fps ~ eta:  3s
Rendering [====================================================>------] at 4.5 fps ~ eta:  2s
Rendering [=====================================================>-----] at 4.5 fps ~ eta:  2s
Rendering [=====================================================>-----] at 4.5 fps ~ eta:  2s
Rendering [======================================================>----] at 4.4 fps ~ eta:  2s
Rendering [======================================================>----] at 4.4 fps ~ eta:  2s
Rendering [=======================================================>----] at 4.4 fps ~ eta:  1s
Rendering [=======================================================>---] at 4.3 fps ~ eta:  1s
Rendering [========================================================>--] at 4.3 fps ~ eta:  1s
Rendering [=========================================================>-] at 4.2 fps ~ eta:  0s
Rendering [==========================================================] at 4.2 fps ~ eta:  0s


Inserting image 1 at 0.00s (1%)...
Inserting image 2 at 0.10s (2%)...
Inserting image 3 at 0.20s (3%)...
Inserting image 4 at 0.30s (4%)...
Inserting image 5 at 0.40s (5%)...
Inserting image 6 at 0.50s (6%)...
Inserting image 7 at 0.60s (7%)...
Inserting image 8 at 0.70s (8%)...
Inserting image 9 at 0.80s (9%)...
Inserting image 10 at 0.90s (10%)...
Inserting image 11 at 1.00s (11%)...
Inserting image 12 at 1.10s (12%)...
Inserting image 13 at 1.20s (13%)...
Inserting image 14 at 1.30s (14%)...
Inserting image 15 at 1.40s (15%)...
Inserting image 16 at 1.50s (16%)...
Inserting image 17 at 1.60s (17%)...
Inserting image 18 at 1.70s (18%)...
Inserting image 19 at 1.80s (19%)...
Inserting image 20 at 1.90s (20%)...
```

```
Inserting image 21 at 2.00s (21%)...
Inserting image 22 at 2.10s (22%)...
Inserting image 23 at 2.20s (23%)...
Inserting image 24 at 2.30s (24%)...
Inserting image 25 at 2.40s (25%)...
Inserting image 26 at 2.50s (26%)...
Inserting image 27 at 2.60s (27%)...
Inserting image 28 at 2.70s (28%)...
Inserting image 29 at 2.80s (29%)...
Inserting image 30 at 2.90s (30%)...
Inserting image 31 at 3.00s (31%)...
Inserting image 32 at 3.10s (32%)...
Inserting image 33 at 3.20s (33%)...
Inserting image 34 at 3.30s (34%)...
Inserting image 35 at 3.40s (35%)...
Inserting image 36 at 3.50s (36%)...
Inserting image 37 at 3.60s (37%)...
Inserting image 38 at 3.70s (38%)...
Inserting image 39 at 3.80s (39%)...
Inserting image 40 at 3.90s (40%)...
Inserting image 41 at 4.00s (41%)...
Inserting image 42 at 4.10s (42%)...
Inserting image 43 at 4.20s (43%)...
Inserting image 44 at 4.30s (44%)...
Inserting image 45 at 4.40s (45%)...
Inserting image 46 at 4.50s (46%)...
Inserting image 47 at 4.60s (47%)...
Inserting image 48 at 4.70s (48%)...
Inserting image 49 at 4.80s (49%)...
Inserting image 50 at 4.90s (50%)...
Inserting image 51 at 5.00s (51%)...
Inserting image 52 at 5.10s (52%)...
Inserting image 53 at 5.20s (53%)...
Inserting image 54 at 5.30s (54%)...
Inserting image 55 at 5.40s (55%)...
Inserting image 56 at 5.50s (56%)...
Inserting image 57 at 5.60s (57%)...
Inserting image 58 at 5.70s (58%)...
Inserting image 59 at 5.80s (59%)...
Inserting image 60 at 5.90s (60%)...
Inserting image 61 at 6.00s (61%)...
Inserting image 62 at 6.10s (62%)...
Inserting image 63 at 6.20s (63%)...
Inserting image 64 at 6.30s (64%)...
Inserting image 65 at 6.40s (65%)...
Inserting image 66 at 6.50s (66%)...
Inserting image 67 at 6.60s (67%)...
Inserting image 68 at 6.70s (68%)...
Inserting image 69 at 6.80s (69%)...
Inserting image 70 at 6.90s (70%)...
Inserting image 71 at 7.00s (71%)...
Inserting image 72 at 7.10s (72%)...
```

```
Inserting image 73 at 7.20s (73%)...
Inserting image 74 at 7.30s (74%)...
Inserting image 75 at 7.40s (75%)...
Inserting image 76 at 7.50s (76%)...
Inserting image 77 at 7.60s (77%)...
Inserting image 78 at 7.70s (78%)...
Inserting image 79 at 7.80s (79%)...
Inserting image 80 at 7.90s (80%)...
Inserting image 81 at 8.00s (81%)...
Inserting image 82 at 8.10s (82%)...
Inserting image 83 at 8.20s (83%)...
Inserting image 84 at 8.30s (84%)...
Inserting image 85 at 8.40s (85%)...
Inserting image 86 at 8.50s (86%)...
Inserting image 87 at 8.60s (87%)...
Inserting image 88 at 8.70s (88%)...
Inserting image 89 at 8.80s (89%)...
Inserting image 90 at 8.90s (90%)...
Inserting image 91 at 9.00s (91%)...
Inserting image 92 at 9.10s (92%)...
Inserting image 93 at 9.20s (93%)...
Inserting image 94 at 9.30s (94%)...
Inserting image 95 at 9.40s (95%)...
Inserting image 96 at 9.50s (96%)...
Inserting image 97 at 9.60s (97%)...
Inserting image 98 at 9.70s (98%)...
Inserting image 99 at 9.80s (99%)...
Inserting image 100 at 9.90s (100%)...
Encoding to gif... done!
```

Hide

#This animated line graph shows the gas consumption of China, Qatar, Russia, South Africa, United Kingdom, and the United States for each year from 1965 to 2021. Natural gas consumption is measured in terawatt-hour (TWh) equivalents per year. From this graph, the country with the highest share of primary energy from gas tended to be the United States, tending to be around 50,000 to 70,000 TWh. South Africa tended to be the lowest staying around 0 TWh.