

## **Great Tables - Oceania**

```

from great_tables import GT
from great_tables.data import countrypops
import polars as pl
import polars.selectors as cs

# Get vectors of 2-letter country codes for each region of Oceania
oceania = {
    "Australasia": ["AU", "NZ"],
    "Melanesia": ["NC", "PG", "SB", "VU"],
    "Micronesia": ["FM", "GU", "KI", "MH", "MP", "NR", "PW"],
    "Polynesia": ["PF", "WS", "TO", "TV"],
}

# Create a dictionary mapping country to region (e.g. AU -> Australasia)
country_to_region = {
    country: region for region, countries in oceania.items() for country in
    countries
}

wide_pops = (
    pl.from_pandas(countrypops)
    .filter(
        pl.col("country_code_2").is_in(list(country_to_region))
        & pl.col("year").is_in([2000, 2010, 2020])
    )
    .with_columns(pl.col("country_code_2").replace(country_to_region).alias("region"))
    .pivot(index=["country_name", "region"], columns="year",
    values="population")
    .sort("2020", descending=True)
)

(
    GT(wide_pops, rowname_col="country_name", groupname_col="region")
    .tab_header(title="Populations of Oceania's Countries in 2000, 2010, and
2020")
    .tab_spanner(label="Total Population", columns=cs.all())
    .fmt_integer()
)

```

```

/var/folders/_5/l_f9_2dj4n5dpm0ztth7n97c0000gp/T/
ipykernel_41564/3569039387.py:26: DeprecationWarning: The argument `columns`
for `DataFrame.pivot` is deprecated. It has been renamed to `on`.
    .pivot(index=["country_name", "region"], columns="year",
    values="population")

```

## Populations of Oceania's Countries in 2000, 2010, and 2020

|                               | Total Population |            |            |
|-------------------------------|------------------|------------|------------|
|                               | 2000             | 2010       | 2020       |
| Australasia                   |                  |            |            |
| Australia                     | 19,028,802       | 22,031,750 | 25,655,289 |
| New Zealand                   | 3,857,700        | 4,350,700  | 5,090,200  |
| Melanesia                     |                  |            |            |
| Papua New Guinea              | 5,508,297        | 7,583,269  | 9,749,640  |
| Solomon Islands               | 429,978          | 540,394    | 691,191    |
| Vanuatu                       | 192,074          | 245,453    | 311,685    |
| New Caledonia                 | 213,230          | 249,750    | 272,460    |
| Polynesia                     |                  |            |            |
| French Polynesia              | 250,927          | 283,788    | 301,920    |
| Samoa                         | 184,008          | 194,672    | 214,929    |
| Tonga                         | 102,603          | 107,383    | 105,254    |
| Tuvalu                        | 9,638            | 10,550     | 11,069     |
| Micronesia                    |                  |            |            |
| Guam                          | 160,188          | 164,905    | 169,231    |
| Kiribati                      | 88,826           | 107,995    | 126,463    |
| Micronesia (Federated States) | 111,709          | 107,588    | 112,106    |
| Northern Mariana Islands      | 80,338           | 54,087     | 49,587     |
| Marshall Islands              | 54,224           | 53,416     | 43,413     |
| Palau                         | 19,726           | 18,540     | 17,972     |
| Nauru                         | 10,377           | 10,241     | 12,315     |