



Three for Three

Week 4 , Unit 2 Population & Migration Patterns & Processes

September 7, 2020

A SUPPLEMENT TO THE WEEKLY APHG BELL RINGERS SERIES

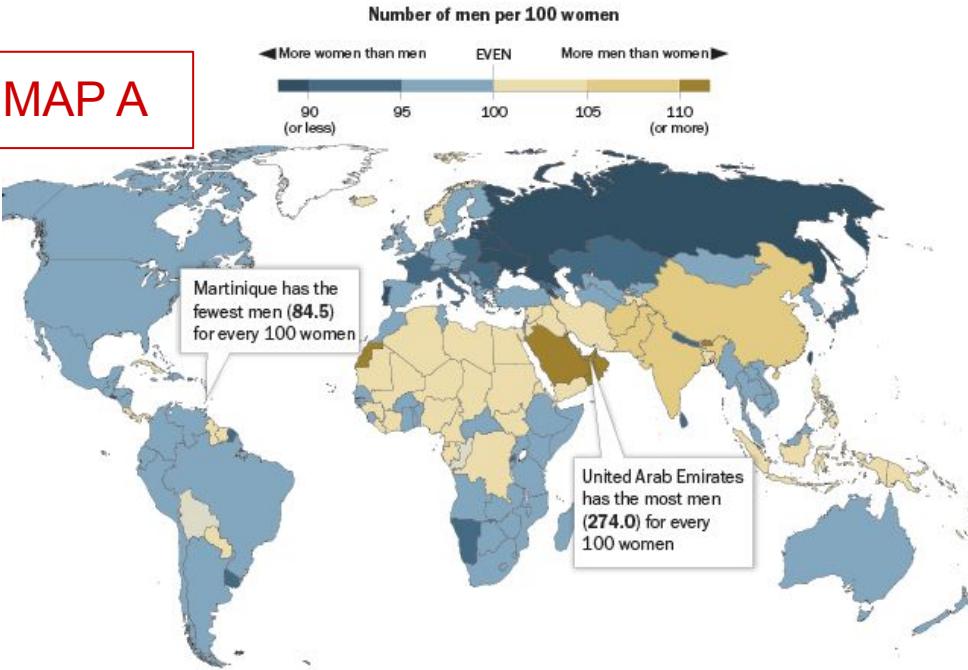
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If you want to post the pdf in your LMS without the “ideas for slides” page, you can use something like the Chrome extension *Smallpdf* to remove the pages you don’t want to post.

If you have any suggestions as to how I can make the Three for Threes more useful for you and your students, or if you have any questions, please feel free to email me at laura.kmetz@gmail.com. Here’s to another year of helping our students develop their ability to think critically and globally!

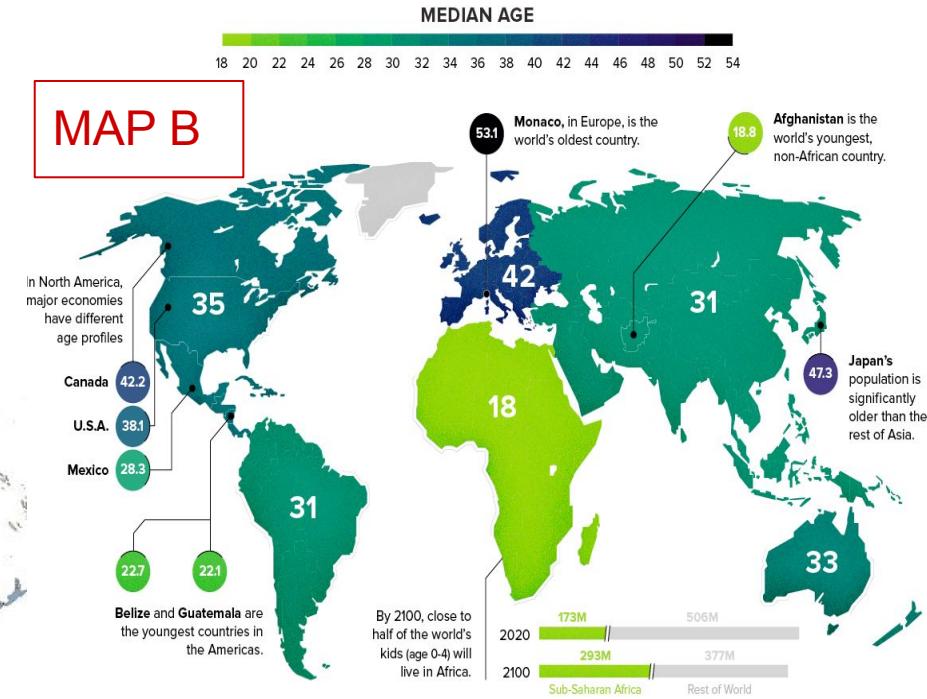
2.3 Population Composition

MAP A



Source: United Nations, DESA. World Population Prospects: The 2015 Revision.

MAP B

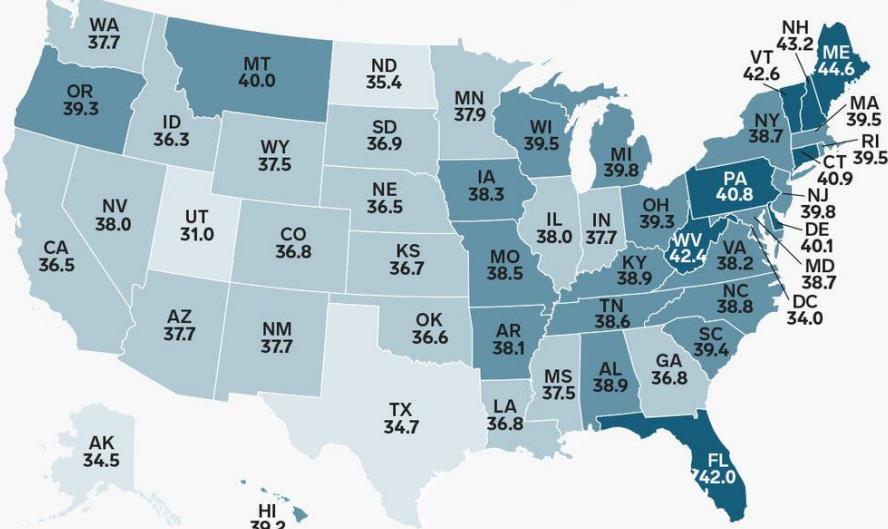


1. Compare the scale of analysis of Map A to that of Map B.
2. Describe patterns of population composition as reflected by each of the maps.
3. Explain a limitation of using the regional scale of analysis in examining median age in North America.

2.3 Population Composition

Median age

31–36 36–38 38–40 40–44.6

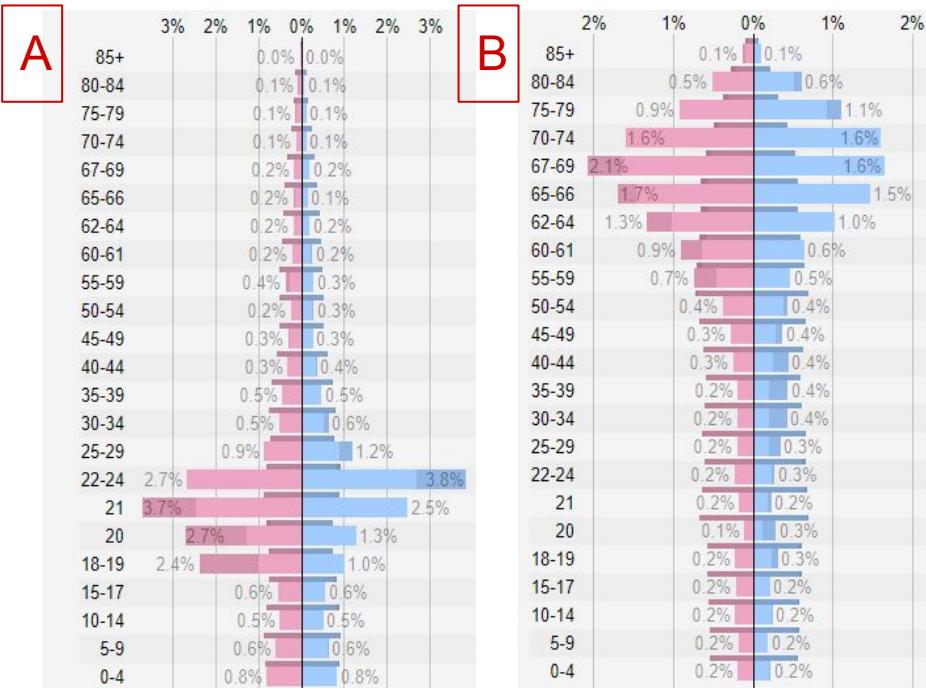


Source: US Census Bureau, 2017 American Community Survey

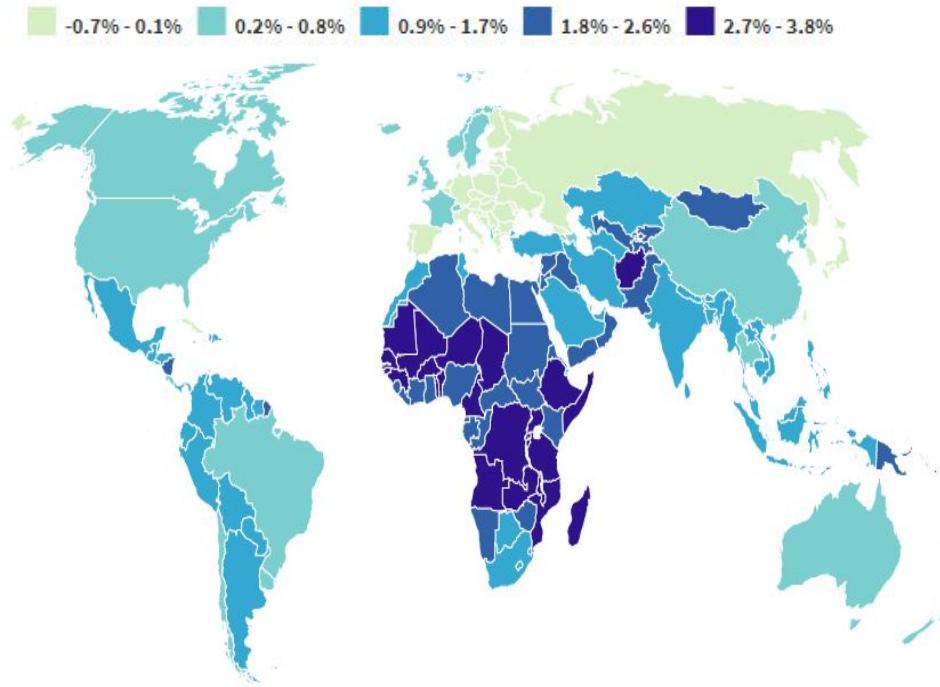
Insider Inc.

The age-sex graphs display the population composition of cities having some of the youngest and oldest median ages in the United States.

- Explain which age-sex graph displays the population composition of Clearwater, FL.
- Describe a good or a service more likely to be used by the residents living in City A than those living in City B.



2.4 Population Dynamics



| COUNTRY | NATURAL INCREASE RATE | TOTAL POPULATION IN MILLIONS | YEARS FOR POPULATION TO DOUBLE |
|---|-----------------------|------------------------------|--------------------------------|
| <i>All figures are from the Population Reference Bureau 2020 World Population Data Sheet.</i> | | | |
| Nigeria | 2.5% | 206.1 | 28 |
| Libya | 2% | 6.9 | 35 |
| Mexico | 1.2% | 127.8 | 58.3 |
| Australia | .6% | 25.8 | 116.6 |
| Thailand | .2% | 66.5 | 350 |
| Bulgaria | -.7% | 6.9 | n/a |

Map A shows natural increase rates, which are expressed as percentages, for countries of the world. Doubling time uses the growth rate to predict how many years it will take for the population to double.

1. Identify the range of natural increase rates according to Map A.
2. Describe the potential effect of negative natural increase rates on the size of the population.
3. Compare the effectiveness of natural increase rates and population doubling time in illustrating how fast the population of a country is growing.

TEACHING NOTES

SLIDE 1: suggested answers: 1) Map A displays the number of men per women for each country, so it is a national scale of analysis. Map B displays median ages for world regions, so that is the regional scale of analysis. 2) Generally speaking, more men than women are found in countries in Central and Southwest Asia and Central, West, and north Africa. (Discuss reasons for this with students, such as younger median ages, often due to the presence of guest workers; does that reasoning account for any of the outliers?). In Map B, we can see that the oldest populations are in Europe and North America, while the youngest are in Africa. 3) A limitation of using the regional scale of analysis when looking at median age in North America is that while it's 35 for the region as a whole, it varies considerably within the region, with Canada's being 42.2 and Mexico's being almost 14 years younger.

SLIDE 2: You can find population pyramids for a one mile ring around anywhere you click if you have an ArcGIS login:

https://developers.arcgis.com/javascript/3/samples/geoenrichment_infographic/. I selected places in Dallas, such as a place with an assisted living center for seniors and one with a swanky downtown high rise, to create an activity in which students determine which pyramid represents which. You could extend the activity by having them decide what service might be located nearby; for example, a rail station near the high rise, and a funeral home near the assisted living center. Be sure to review that the census is the source of info for population pyramids. **suggested answers:** 1) B is the age-sex graph (or population pyramid) of Clearwater, FL. According to the map, Florida has one of the oldest median ages in the country at 42. Because B's has a much larger population in older age groups than A, B is much more likely to be the age sex graph for a city in Florida. 2) (This population pyramid is of Provo, UT, the location of Brigham Young University.) A has many residents who are young adults. Accept any answer that younger people are more likely to use than older people. Examples might include tutoring services, resume writing services, wedding planning services, wedding apparel, fitness centers, sports equipment, and fast food. Extend the activity by having students think of services residents of City B might need such as financial planning, tax services, home health aides, and lawn services. An excellent source to look at services needed by various ages is Esri's Tapestry Segmentation map. Google it for a pdf, or access the interactive map viewer (with an ArcGIS account) here:
<https://www.arcgis.com/home/item.html?id=c2a2e156485b4feab11b86976fe9c011>

SLIDE 3: Students may struggle with how population composition (what it is) and dynamics (the causes of changing composition) are different. They also may not understand how RNI and doubling time are different, so that's why I chose measurements of dynamics (2.A.2) as the focus of this slide. **suggested answers:** 1) As indicated by the map, NIRs range from -.7% to as high as 3.8%. 2) Negative NIRs mean the crude death rate is higher than the crude birth rate. Over time, and without migration, the total population will decline. 3) NIRs are relatively easy to calculate but result in numbers that can mask how large of a difference in the rate of population growth exists in a country with an NIR of 3% and one of .5%. Because it uses whole numbers, population doubling time can be an easier way to understand how fast a population is growing. However, because it doesn't necessarily convey how large a population is, or will be when it doubles, that can limit understanding of population growth rate. For example, Nigeria has the largest population of any country in Africa and one of the highest in the world. At the current NIR, its population will double to over 400 million in 28 years. Libya's population will double in close to the same number of years, but its current population is only 7 million. Nigeria's current population is over 29 times Libya's current population.

SOURCES:

slide 1: <https://www.pewresearch.org/fact-tank/2015/08/14/why-the-former-ussr-has-far-fewer-men-than-women/> ft. 15-08-06_sexratio_map_2/ and

<https://www.visualcapitalist.com/mapped-the-median-age-of-every-continent/>

slide 2: age sex graphs (population pyramids) statisticalatlas.com; map <https://www.businessinsider.com/state-median-age-map-2018-11>

slide 3: map: <https://www.prb.org/international/indicator/rate-natural-increase/snapshot> I created the table by using info from the 2020 World Population Data sheet available on prb.org.

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