Python Project

For the next set of questions, we will be using **census** data from the United States in the United States. This dataset contains population data for countries and states in the US from 2010 to 2015. See document for thedescription of the variable names.

1. Which state has the most countries in it? (hint: consider the sumlevel key carefully! You'll need this for future questions too...)
2. Only looking at the three most populous countries for each state, what are the three most populous states (in order of highest population to lowest population)? Use CENSUS2010POP
3. Which city has the most countries in it?
4. Which region has the most division in it?

CO-EST2015-alldata: Annual Resident Population Estimates, Estimated Components of Resident Population Change, and Rates of the Components of Resident Population Change for States and Counties: April 1, 2010 to July 1, 2015

File: 7/1/2015 County Population Estimates

Source: U.S. Census Bureau, Population Division
Release Date: March 2016

Sort order of observations: Counties within State in FIPS code sort

Data fields (in order of appearance):

VARIABLE	DESCRIPTION
SUMLEV	Geographic summary level
REGION	Census Region code
DIVISION	Census Division code
STATE	State FIPS code
COUNTY	County FIPS code

STNAME	State name
CTYNAME	County name
CENSUS2010POP	4/1/2010 resident total Census 2010 population
ESTIMATESBASE2010	4/1/2010 resident total population estimates base
POPESTIMATE2010	7/1/2010 resident total population estimate
POPESTIMATE2011	7/1/2011 resident total population estimate
POPESTIMATE2012	7/1/2012 resident total population estimate
POPESTIMATE2013	7/1/2013 resident total population estimate
POPESTIMATE2014	7/1/2014 resident total population estimate
POPESTIMATE2015	7/1/2015 resident total population estimate
NPOPCHG2010	Numeric change in resident total population 4/1/2010 to 7/1/2010
NPOPCHG2011	Numeric change in resident total population 7/1/2010 to 7/1/2011
NPOPCHG2012	Numeric change in resident total population 7/1/2011 to 7/1/2012
NPOPCHG2013	Numeric change in resident total population 7/1/2012 to 7/1/2013
NPOPCHG2014	Numeric change in resident total population 7/1/2013 to 7/1/2014
NPOPCHG2015	Numeric change in resident total population 7/1/2014 to 7/1/2015
BIRTHS2010	Births in period 4/1/2010 to 6/30/2010
BIRTHS2011	Births in period 7/1/2010 to 6/30/2011
BIRTHS2012	Births in period 7/1/2011 to 6/30/2012
BIRTHS2013	Births in period 7/1/2012 to 6/30/2013
BIRTHS2014	Births in period 7/1/2013 to 6/30/2014
BIRTHS2015	Births in period 7/1/2014 to 6/30/2015
DEATHS2010	Deaths in period 4/1/2010 to 6/30/2010
DEATHS2011	Deaths in period 7/1/2010 to 6/30/2011
DEATHS2012	Deaths in period 7/1/2011 to 6/30/2012
DEATHS2013	Deaths in period 7/1/2012 to 6/30/2013
DEATHS2014	Deaths in period 7/1/2013 to 6/30/2014
DEATHS2015	Deaths in period 7/1/2014 to 6/30/2015
NATURALINC2010	Natural increase in period 4/1/2010 to 6/30/2010
NATURALINC2011	Natural increase in period 7/1/2010 to 6/30/2011

NATURALINC2012	Natural increase in period 7/1/2011 to 6/30/2012
NATURALINC2013	Natural increase in period 7/1/2012 to 6/30/2013
NATURALINC2014	Natural increase in period 7/1/2013 to 6/30/2014
NATURALINC2015	Natural increase in period 7/1/2014 to 6/30/2015
INTERNATIONALMIG2010	Net international migration in period 4/1/2010 to 6/30/2010
INTERNATIONALMIG2011	Net international migration in period 7/1/2010 to 6/30/2011
INTERNATIONALMIG2012	Net international migration in period 7/1/2011 to 6/30/2012
INTERNATIONALMIG2013	Net international migration in period 7/1/2012 to 6/30/2013
INTERNATIONALMIG2014	Net international migration in period 7/1/2013 to 6/30/2014
INTERNATIONALMIG2015	Net international migration in period 7/1/2014 to 6/30/2015
DOMESTICMIG2010	Net domestic migration in period 4/1/2010 to 6/30/2010
DOMESTICMIG2011	Net domestic migration in period 7/1/2010 to 6/30/2011
DOMESTICMIG2012	Net domestic migration in period 7/1/2011 to 6/30/2012
DOMESTICMIG2013	Net domestic migration in period 7/1/2012 to 6/30/2013
DOMESTICMIG2014	Net domestic migration in period 7/1/2013 to 6/30/2014
DOMESTICMIG2015	Net domestic migration in period 7/1/2014 to 6/30/2015
NETMIG2010	Net migration in period 4/1/2010 to 6/30/2010
NETMIG2011	Net migration in period 7/1/2010 to 6/30/2011
NETMIG2012	Net migration in period 7/1/2011 to 6/30/2012
NETMIG2013	Net migration in period 7/1/2012 to 6/30/2013
NETMIG2014	Net migration in period 7/1/2013 to 6/30/2014
NETMIG2015	Net migration in period 7/1/2014 to 6/30/2015
RESIDUAL2010	Residual for period 4/1/2010 to 6/30/2010
RESIDUAL2011	Residual for period 7/1/2010 to 6/30/2011
RESIDUAL2012	Residual for period 7/1/2011 to 6/30/2012
RESIDUAL2013	Residual for period 7/1/2012 to 6/30/2013
RESIDUAL2014	Residual for period 7/1/2013 to 6/30/2014
RESIDUAL2015	Residual for period 7/1/2014 to 6/30/2015
GQESTIMATESBASE2010	4/1/2010 Group Quarters total population estimates base
GQESTIMATES2010	7/1/2010 Group Quarters total population estimate
GQESTIMATES2011	7/1/2011 Group Quarters total population estimate
GQESTIMATES2012	7/1/2012 Group Quarters total population estimate
GQESTIMATES2013	7/1/2013 Group Quarters total population estimate
GQESTIMATES2014	7/1/2014 Group Quarters total population estimate
GQESTIMATES2015	7/1/2015 Group Quarters total population estimate
RBIRTH2011	Birth rate in period 7/1/2010 to 6/30/2011
RBIRTH2012	Birth rate in period 7/1/2011 to 6/30/2012
RBIRTH2013	Birth rate in period 7/1/2012 to 6/30/2013
RBIRTH2014	Birth rate in period 7/1/2013 to 6/30/2014
RBIRTH2015	Birth rate in period 7/1/2014 to 6/30/2015
RDEATH2011	Death rate in period 7/1/2010 to 6/30/2011
RDEATH2012	Death rate in period 7/1/2011 to 6/30/2012
RDEATH2013	Death rate in period 7/1/2012 to 6/30/2013
RDEATH2014	Death rate in period 7/1/2013 to 6/30/2014
RDEATH2015	Death rate in period 7/1/2014 to 6/30/2015
RNATURALINC2011	Natural increase rate in period 7/1/2010 to 6/30/2011
RNATURALINC2012	Natural increase rate in period 7/1/2011 to 6/30/2012
RNATURALINC2013	Natural increase rate in period 7/1/2012 to 6/30/2013
RNATURALINC2014	Natural increase rate in period 7/1/2013 to 6/30/2014

RNATURALINC2015	Natural increase rate in period 7/1/2014 to 6/30/2015
RINTERNATIONALMIG2011	Net international migration rate in period 7/1/2010 to 6/30/2011
RINTERNATIONALMIG2012	Net international migration rate in period 7/1/2011 to 6/30/2012
RINTERNATIONALMIG2013	Net international migration rate in period 7/1/2012 to 6/30/2013
RINTERNATIONALMIG2014	Net international migration rate in period 7/1/2013 to 6/30/2014
RINTERNATIONALMIG2015	Net international migration rate in period 7/1/2014 to 6/30/2015
RDOMESTICMIG2011	Net domestic migration rate in period 7/1/2010 to 6/30/2011
RDOMESTICMIG2012	Net domestic migration rate in period 7/1/2011 to 6/30/2012
RDOMESTICMIG2013	Net domestic migration rate in period 7/1/2012 to 6/30/2013
RDOMESTICMIG2014	Net domestic migration rate in period 7/1/2013 to 6/30/2014
RDOMESTICMIG2015	Net domestic migration rate in period 7/1/2014 to 6/30/2015
RNETMIG2011	Net migration rate in period 7/1/2010 to 6/30/2011
RNETMIG2012	Net migration rate in period 7/1/2011 to 6/30/2012
RNETMIG2013	Net migration rate in period 7/1/2012 to 6/30/2013
RNETMIG2014	Net migration rate in period 7/1/2013 to 6/30/2014
RNETMIG2015	Net migration rate in period 7/1/2014 to 6/30/2015

X = Not Applicable

The key for SUMLEV is as follows:
- 040 = State and/or Statistical Equivalent
- 050 = County and /or Statistical Equivalent

The key for REGION is as follows:
- 1 = Northeast
- 2 = Midwest
- 3 = South
- 4 = West

The key for DIVISION is as follows:
- 1 = New England
- 2 = Middle Atlantic
- 3 = East North Central
- 4 = West North Central
- 5 = South Atlantic
- 6 = East South Central
- 7 = West South Central
- 8 = Mountain
- 9 = Pacific

Note: Total population change includes a residual. This residual represents the change in population that cannot be attributed to any specific demographic component. See Population Estimates Terms and Definitions at http://www.census.gov/popest/about/terms.html.

Net international migration for the United States includes the international migration of both native and foreign-born populations. Specifically, it includes: (a) the net international migration of the foreign born, (b) the net migration between the United States and Puerto Rico, (c) the net migration of natives to and from the United States, and (d) the net movement of the Armed Forces population between the United

States and overseas. Net international migration for Puerto Rico includes the migration of native and foreign-born populations between the United States and Puerto Rico.

The 6,222 people in Bedford city, Virginia, which was an independent city as of the 2010 Census, are not included in the April 1, 2010 Census enumerated population presented in the county estimates. In July 2013, the legal status of Bedford changed from a city to a town and it became dependent within (or part of) Bedford County, Virginia. This population of Bedford town is now included in the April 1, 2010 estimates base and all July 1 estimates for Bedford County. Because it is no longer an independent city, Bedford town is not listed in this table. As a result, the sum of the April 1, 2010 census values for Virginia counties and independent cities does not equal the 2010 Census count for Virginia, and the sum of April 1, 2010 census values for all counties and independent cities in the United States does not equal the 2010 Census count for the United States. Substantial geographic changes to counties can be found on the Census Bureau website at http://www.census.gov/geo/reference/county-changes.html.

The estimates are based on the 2010 Census and reflect changes to the April 1, 2010 population due to the Count Question Resolution program and geographic program revisions. See Geographic Terms and Definitions at http://www.census.gov/popest/about/geo/terms.html for a list of the states that are included in each region and division. All geographic boundaries for these population estimates are as of January 1, 2015. For population estimates methodology statements, see http://www.census.gov/popest/methodology/index.html.

NB: Send your answer in Microsoft word to **samuel@quantumanalyticsco.org**
including your full name and cohort.

Submission Instructions
Email address for submission:
To: **samuel@quantumanalyticsco.org**

Samuel Josiah
Program Director QA

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