

# GEOG 245: Geodemographics

Internal Migration and the  
Demographics of the National  
Electon

8 November 2016



## Announcements

- If you are interested in an ArcGIS tutorial on how to bring your own data into ArcGIS, please complete the When2Meet poll by Thursday
  - <http://www.when2meet.com/?5881293-Nzewj>
- Thursday we will have a guest lecture from a geography graduate student, Lee Fiorio.
  - Readings are longer than usual, so be sure to allow yourself time

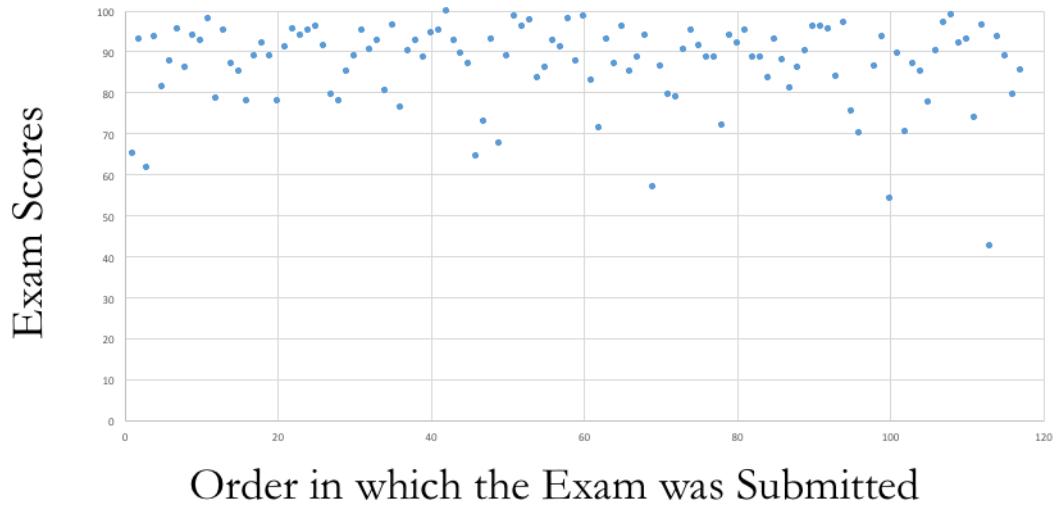
See the announcement I made on canvas last night.

Lee has worked in the field of geodemographics and is now doing his graduate research in geodemographics and is going to present some of the ways and reasons geodemographics are examined both inside and outside of academia. Please take the time to look at the two readings he shared (on the canvas site) in preparation for the class. Lee has agreed to be recorded, so a recorded version of Thursday's lecture should appear on canvas as usual.

## Plan for Today

- Review the Midterms
- Internal Migration
- Today's Presidential Election

## Exam Scores (by Order Submitted)



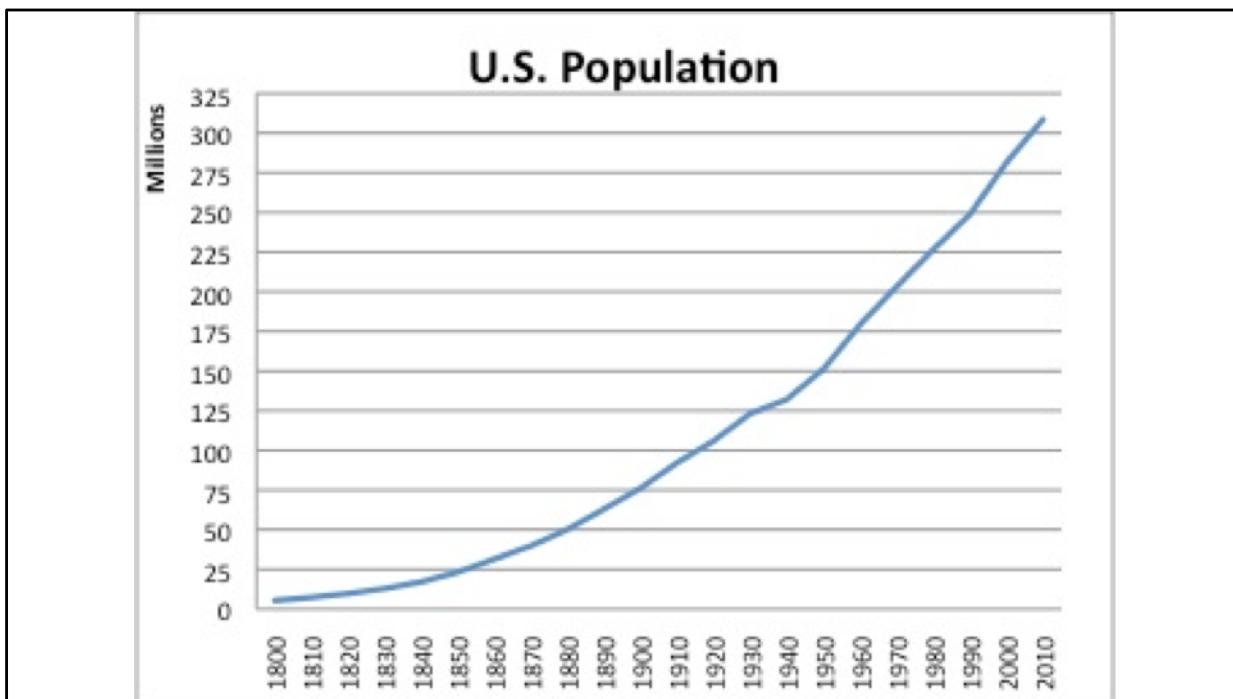
On average you guys did a wonderful job! The average grade was just under 87%. Congrats!

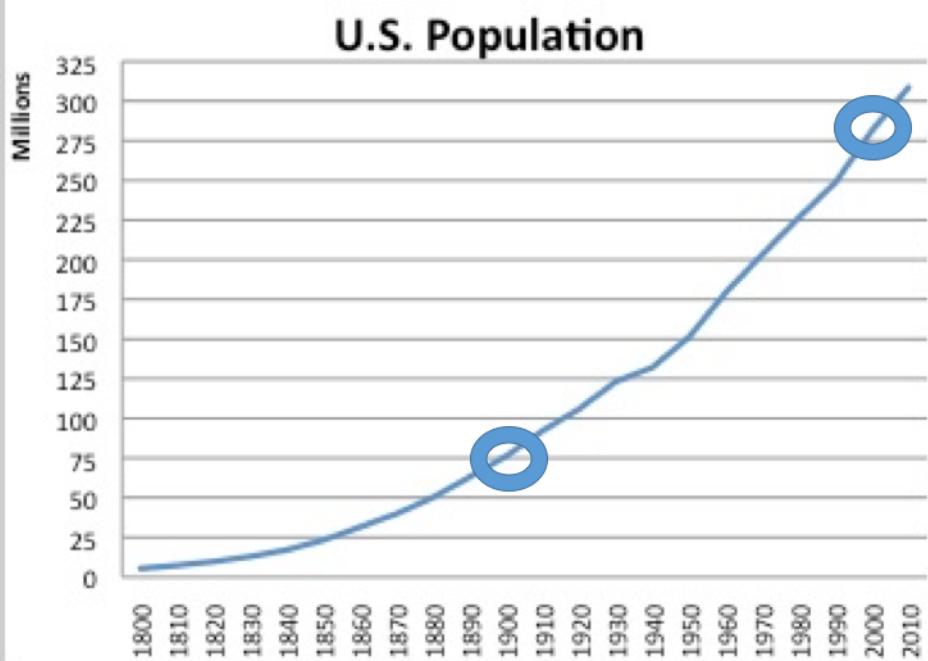
Here is a graph based on when you turned in the exam. I students are often surprised to see that there isn't really any correlation between when you turn in the exam and the grade you got.

## Most Commonly Missed Questions

2. In the second half of the 20<sup>th</sup> century, the global population
- a. Remained constant
  - b. Increased by 50%
  - c. More than doubled
  - d. Shrunk slightly

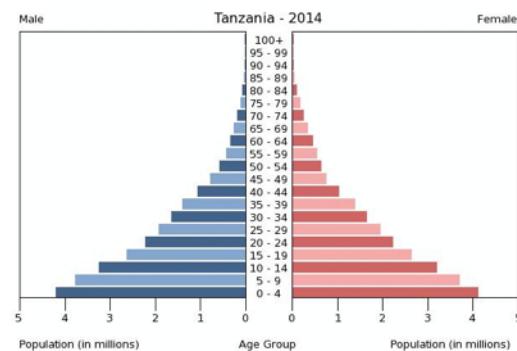
ANSWER: C





## Most Commonly Missed Questions

5. The concave sides of the population pyramid to the right suggests that the population
- a. Has a low mortality rate
  - b. Has a high fertility rate
  - c. Has a high mortality rate
  - d. Has a low immigration rate
  - e. Has a low fertility rate



ANSWER: C

Why? Concave shape is produced by a steep drop off between each age group jump

## Most Commonly Missed Questions

10. The US Census counts
  - a. Everyone in the US on April 1 of census years
  - b. A representative subset of the US population
  - c. The subset of the US population that decides to complete the census form they get in the mail
  - d. The US census attempts to count everyone in the US, but specific populations (the homeless, undocumented immigrants, etc.) are difficult to count accurately

ANSWER: D

So, in order to get as close to an accurate population count as possible, the Census Bureau often guesses how many people aren't recorded by the census.

## Most Commonly Missed Questions

12. Fertility rates are strongly correlated with
- a. Human Development Index
  - b. Economic development
  - c. Infant mortality
  - d. All of the above
  - e. None of the above, they are solely a matter of personal preference

ANSWER: D

## Most Commonly Missed Questions

16. The Child-Woman Ratio (# of children under age 5 / # of women of childbearing age) is a particularly useful statistic for
- a. Populations in very rural or resource poor settings where the recording of births does not happen promptly or consistently
  - b. Populations where the age/sex structure is uneven and thus other statistics do not accurately convey fertility
  - c. Populations with very low levels of fertility since not enough children are born in a single year to produce an accurate statistic

ANSWER: A

## Most Commonly Missed Questions

17. The Crude Death Rate (# of deaths / total population) is an example of

- a. A cohort measure
- b. A period measure
- c. A constant
- d. None of the above

ANSWER: B

Why is this a period measures?

## Most Commonly Missed Questions

23. Complete the following sentence: When we talk about the inherent advantages that white people are given in US society such as the assumption that they are good people, that is a form of A, whereas the use of racial slurs targeted at a specific person is a form of B.

- a. A=Harassment, B=Discrimination
- b. A=Achievement Gap, B=Harassment
- c. A=Institutional Racism, B=Individual Discrimination
- d. A=White Privilege, B=Institutional Racism

ANSWER: C

Part A narrows it down to C or D as appropriate answers and part B narrows it down to only answer C.

## Most Commonly Missed Questions

24. A minority group is
- a. A social group that is systematically denied the same access to power and resources regardless of what percentage of the total population they make up
  - b. Any subgroup of the population that is less than 50% of the total population
  - c. Any subgroup of the population that does not constitute the majority of the total population

ANSWER: A

Why? Even in parts of the US where the Black population is over 50% (many inner cities), that doesn't make whites a minority group. In many cities in the US, there is no racial group that is over 50% of the population.

## Most Commonly Missed Questions

25. In the US today
- a. The white population makes up about 65% of the total population
  - b. If you combine all minority populations together, they make up over 50% of the population
  - c. The white population makes up about 85% of the total population
  - d. It is impossible to get an accurate breakdown of the racial composition of the US because most people mark multiple races or no races on the census

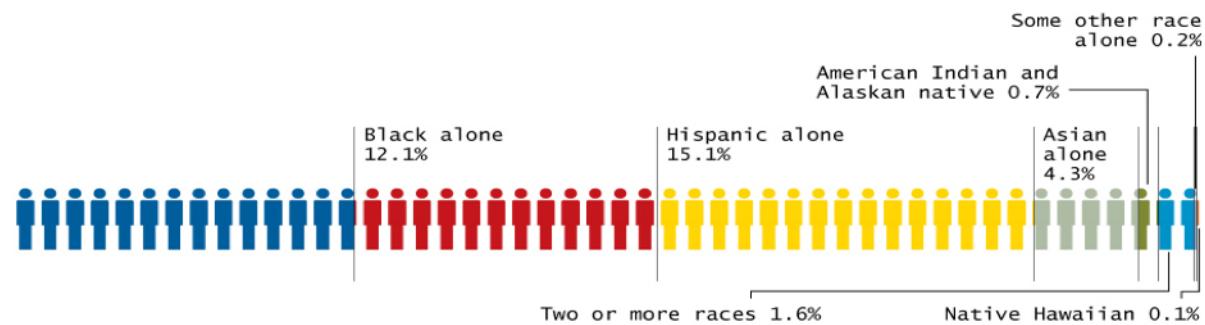
ANSWER: A

## An Ethnic Snapshot of America Today

White, not Hispanic  
65.9%



Each symbol represents 1% of the U.S. population.



## Most Commonly Missed Questions

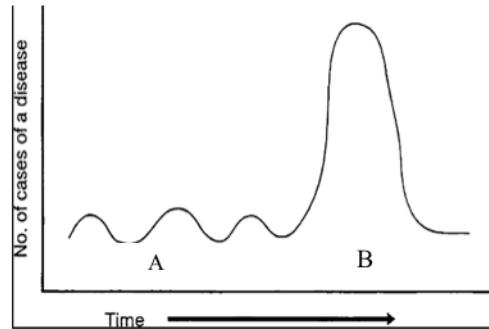
26. In the United States, segregation
- a. Only refers to the separation of blacks and whites
  - b. Of the Mexican American, Native American, and Asian American populations was also rampant during parts of the nation's history
  - c. Only occurred in specific regions of the country
  - d. Both A and C

ANSWER: B

## Most Commonly Missed Questions

28. In the graph to the right illustrating the number of cases of a disease over time in a given area, A and B would best be labeled as

- a. A=Endemic, B=Epidemic
- b. A=Epidemic, B=Endemic
- c. A=Endemic, B=Pandemic
- d. A=Epidemic, B=Pandemic



ANSWER: A

What does Endemic mean?

What does Epidemic mean?

What does Pandemic mean?

## Most Commonly Missed Questions

30. In the United States, the HIV epidemic has shifted over time such that
- a. It increasingly affects women
  - b. It increasingly is spread through male-female (heterosexual) sexual contact
  - c. It increasingly affects the black population more than the white population
  - d. All of the above
  - e. None of the above

ANSWER: D

## Most Commonly Missed Questions

- Matching:
  - A statistic that follows the same people over a period of time

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  - The number of new cases of a disease within a given time period

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    - Period Measure
  - The number of new cases of a disease within a given time period
    - Incidence
  - The total number of cases of a disease at a specific point in time

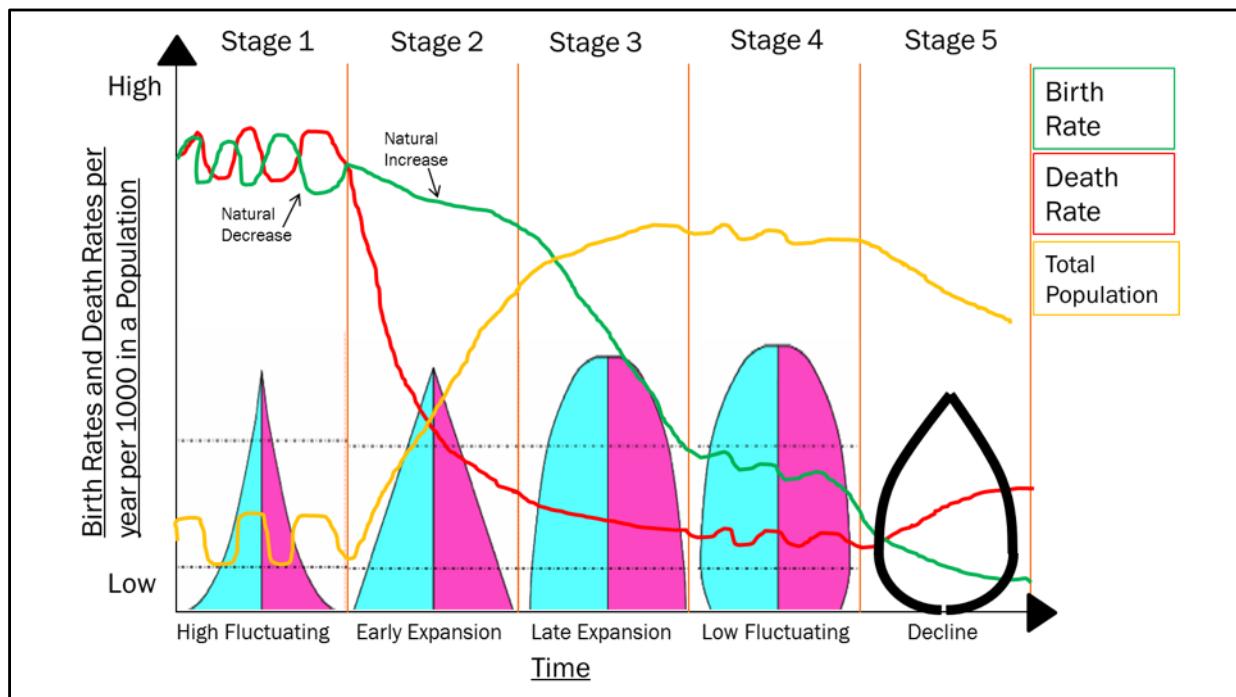
## Most Commonly Missed Questions

- Matching:
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    - Cohort Measure
  - Any statistic that examines a cross-section of the population at a given point in time
    - Period Measure
  - The number of new cases of a disease within a given time period
    - Incidence
  - The total number of cases of a disease at a specific point in time
    - Prevalence

## Short Answer Questions

- Question 1: The Demographic Transition

What is the demographic transition?



## Short Answer Questions

- Question 2: Segregation

What is segregation? What are the two types?

## Short Answer Questions

- Question 2: Segregation

- De Jure

- De Facto

What are examples of each?

## Short Answer Questions

- Question 3: The Dependency Ratio

What is the dependency ratio?  
How does it shift as the population ages?  
Why is this relevant in the US today?

# Questions?

Any other questions about the midterm?

Feel free to come talk to me if you have any questions or want to discuss how to prepare better for the final exam.

## Plan for Today

- Review the Midterms
- Internal Migration
- Today's Presidential Election

So we briefly talked about internal migration when we discussed migration more generally a few weeks back.

## What is Migration?

Quick refresher...

## Migration

- A permanent change in residence

So what isn't included? Temporary change (seasonal workers, travel, etc.)

## What is Internal Migration?

## Internal Migration

- People within a country moving to another location within the same country

## Internal Migration Vocab

- Inter-(state, region)
- Intra-(state, region, urban)

Inter means between (so interstate means between different states, interregional migration is migration between different regions)

Intra means within (so intrastate means within the same state, intraregional migration is migration within the same state and intraurban migration is migration within the same city or town)

Which do you think is the most common type of migration?

## Intraurban migration

- Moving homes (addresses) within an urban area
  - You change addresses, but often stay close enough to maintain jobs, school districts, friends, etc.
- The most common form of internal migration

How many of you have changed addresses in the last year?

What are the most common reasons for intraurban migration? (generally house size, neighborhood location, etc.)

This area is of growing attention to geographers who have traditionally focused more on larger moves.

## Intrastate migration

- Moving within a state
  - You change cities, but stay within the same state

How many of you have moved from some other part of Washington state to Seattle in the last year?

What are the most common reasons for intrastate migration? (generally jobs and education)

Often rural to urban migration (particularly of young adults (ages 17-25)).

## Interstate migration

- Moving from one state to another

How many of you have changed states in the last year?

What are the most common reasons for interstate migration? (again, generally jobs (careers) and education)

Traditionally demographers have focused most heavily on this form of migration, but recently attention has tended to start shifting down to smaller scales.

## How do we measure migration?

- International Migration:

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- International Migration:
  - visa applications
  - border control/immigration
  - census/surveys

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## How do we measure migration?

- International Migration:
  - visa applications
  - border control/immigration
  - census/surveys
- Internal Migration:
  - census/surveys
  - IRS
  - In the US, internal migration is measured based on changes in address within the past year (this is a question on your taxes every year and is part of the American Community Survey)

Remember that the American Community Survey is the current replacement for the long form Census and is conducted by the Census Bureau.

**Remember:**

Net Migration = Immigration – Emigration

## Net Migration

Net Migration = In-migration – Out-migration

When discussing internal migration, we do not use the words immigration and emigration as those specifically refer to types of international migration. Instead, we use the terms in-migration and out-migration.

These terms are exactly what they sound like: the number of people moving into a place or the number of people moving out of a place

Based on other examples we have seen so far this quarter, what would we need to do to this formula in order to calculate the (crude) net migration rate?

## Crude Net Migration Rate

$$\text{Crude Net Migration Rate} = \frac{\text{In-migration} - \text{Out-migration}}{\text{Total Population}} * K$$

- Generally calculated for a specific year using the mid-year population
- K=constant (usually 1,000)

But what is missing from this sort of calculation? (If Washington gets lots of people moving in and lots of people moving out, the CNMR can look the same as a state with few people moving in and few people moving out)

## Total Migration Rate

$$\text{Total Migration Rate} = \frac{\text{In-migration} + \text{Out-migration}}{\text{Total Population}} * K$$

- Generally calculated for a specific year using the mid-year population
- K=constant (usually 1,000)

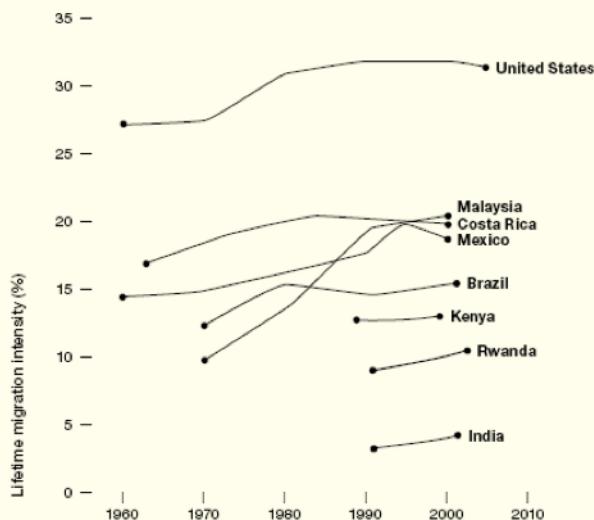
This number measures what fraction of the population is migrating (changing addresses). It does not tell you whether the population is growing or shrinking (need the CNMR to do that).

Questions?

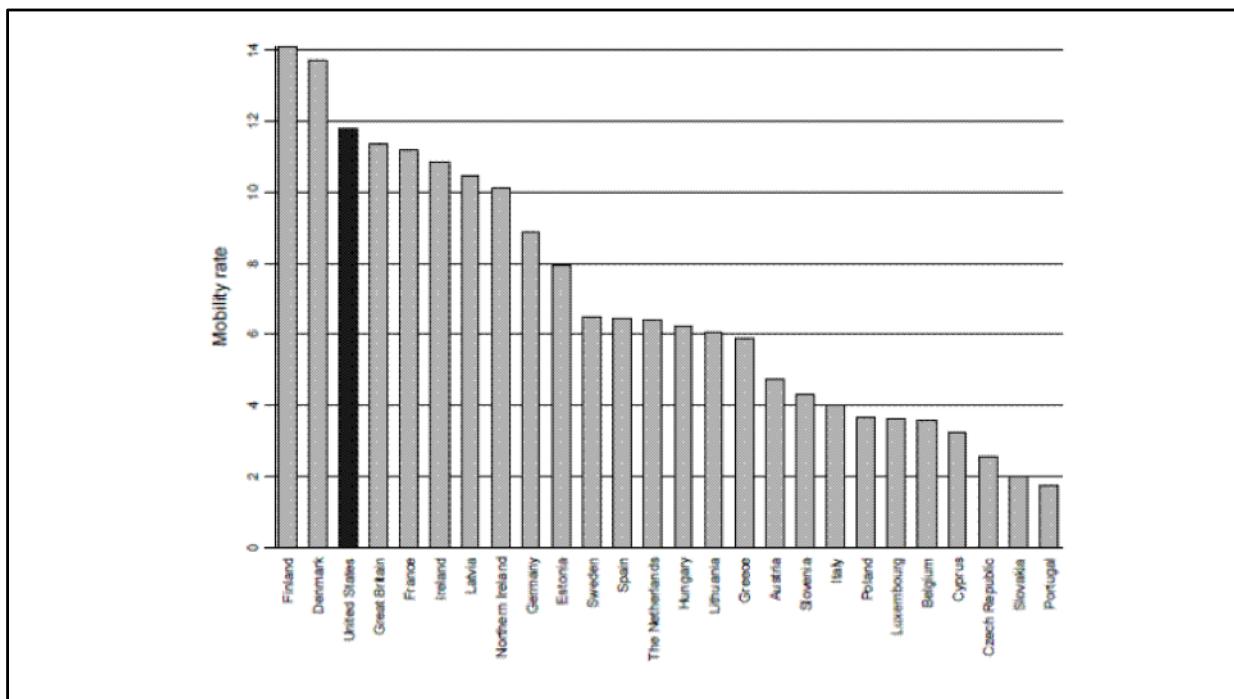
## Internal Migration in the US

- The US has a very high rate of internal migration (compared with other countries)

**Figure 2.6 Internal migration rates have increased only slightly**  
Trends in lifetime internal migration intensity in selected countries, 1960–2000s



Source: Bell and Muhidin (2009).



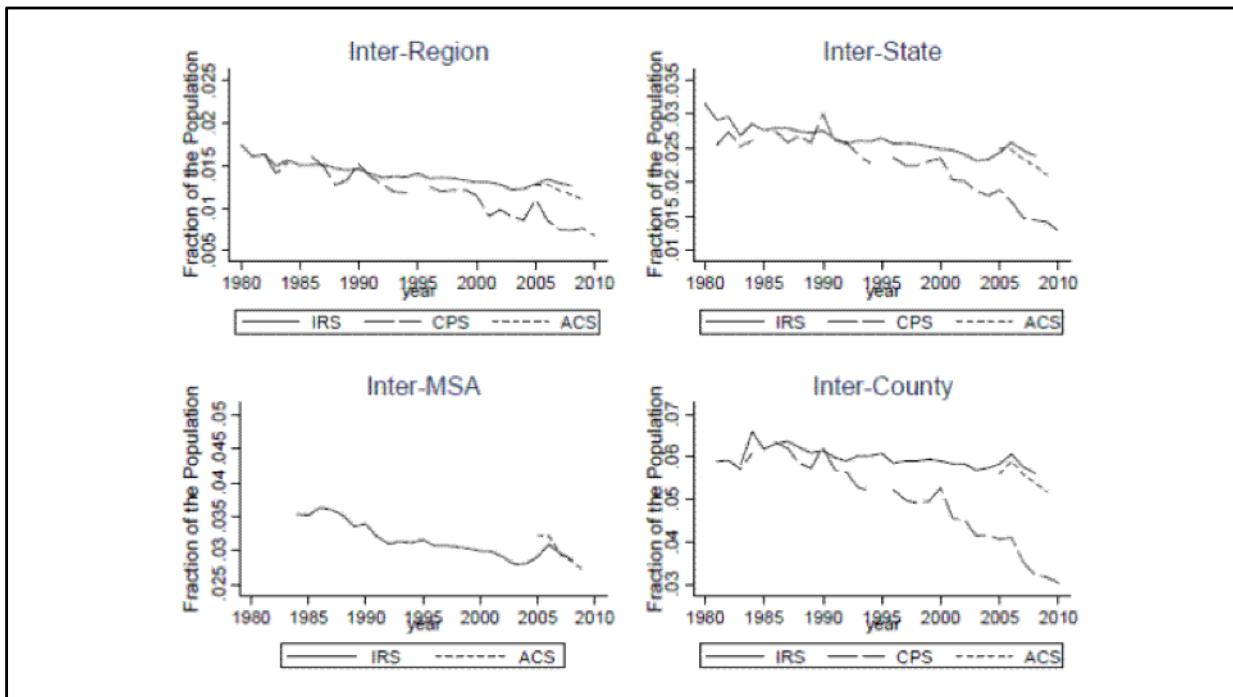
Fraction of the population that changed residence in the previous year (data from 2005)

Data from the Federal Reserve

(<https://www.federalreserve.gov/pubs/feds/2011/201130/>)

## Internal Migration in the US

- The US has a very high rate of internal migration (compared with other countries), but it is now on the decline



Inter MSA (between Metropolitan Statistical Areas)

Why do you think internal migration is on the decline?

## Why is Internal Migration on the Decline?

## Why is Internal Migration on the Decline?

- Population growth in the least mobile groups (elderly, homeowners, etc.)
- Rise in dual career couples
- Rise in divorce rate
- Deunionization
- Labor Market Convergence
- Great Recession and Foreclosure Crisis

Why would the rise in dual career couples lead to a decline in mobility? (moving for one job is relatively easy; moving because two jobs lined up is significantly harder)

Why would the rise in divorce rate lead to a decline in mobility? (it specifically leads to a decline in interstate mobility because divorced parents choose to stay near their kids)

Why deunionization? (workers less mobile because its harder to bargain for a higher paying job elsewhere)

What is the labor market convergence (labor markets within the US are starting to look more and more alike so there is less motivation to move elsewhere to access a better labor market)

Great recession/foreclosure crisis actually initially increased intracounty/intraurban mobility as houses were foreclosed, but dramatically decreased intercounty/interurban mobility (people don't have the money to start over elsewhere)

## Why is Internal Migration on the Decline?

- History!

Anytime we are asking questions about change over time, it is important to examine what happened before, not just what is happening now. So, instead of asking why rates are down now, we can ask why they were so high in the past.

## Large Historical Migrations in the US

- Western Frontier (17<sup>th</sup> c. – 19<sup>th</sup> c.)

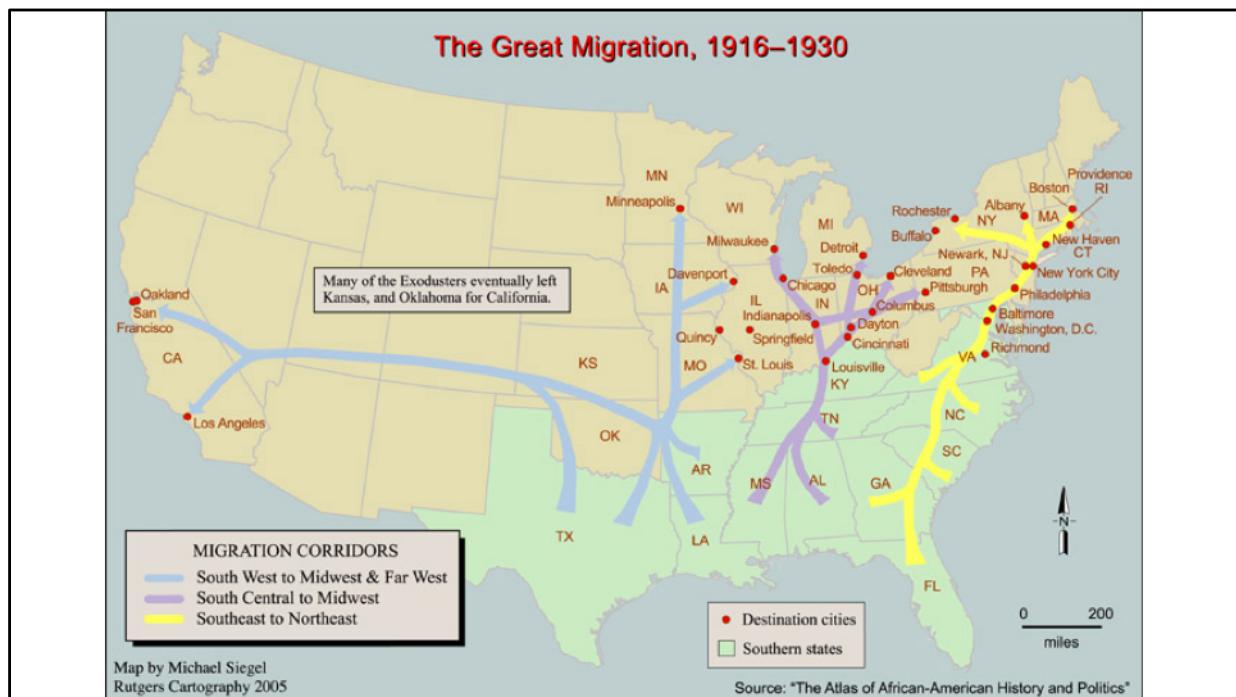
Since European settlement of North America began, there was a slow shift in population westward as land became available. Most motivated by economic gain (some by religious freedom, ex. Mormons)

<http://www.census.gov/dataviz/visualizations/001/>

## Large Historical Migrations in the US

- Western Frontier (17<sup>th</sup> c. – 19<sup>th</sup> c.)
- The Great Migration (1910-1970)

We briefly discussed the Great Migration when discussing segregation. What is it?

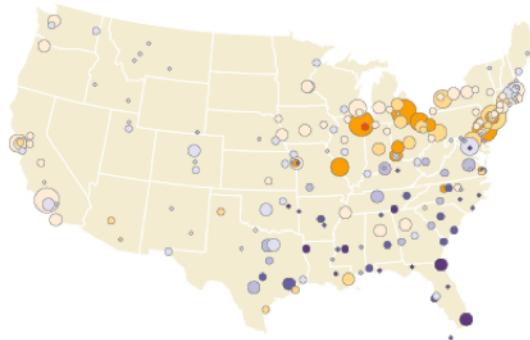


Migration of Blacks in the 20<sup>th</sup> c. from the rural south to the urban north (and California).

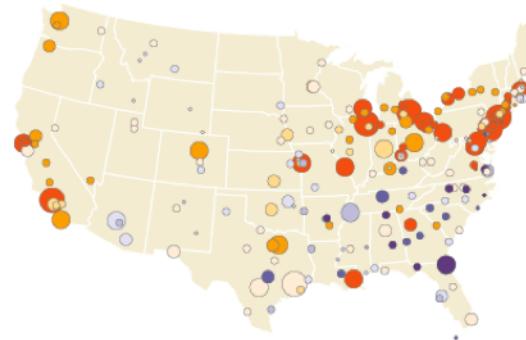
Approximately 1.4 million African Americans moved as part of The Great Migration. Extends from 1910-1970 (some scholars break it into the First (1910-1940) and Second (1940-1970) Great Migrations.

In this time period we see a shift of the African American population from over 90% rural to over 90% urban. (there is also the movement of African Americans within the south into cities, but not at the rate of moving north)

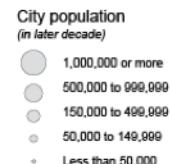
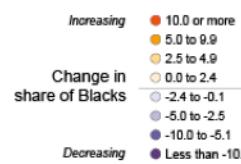
The First Great Migration:  
1910-1940



The Second Great Migration:  
1940-1970



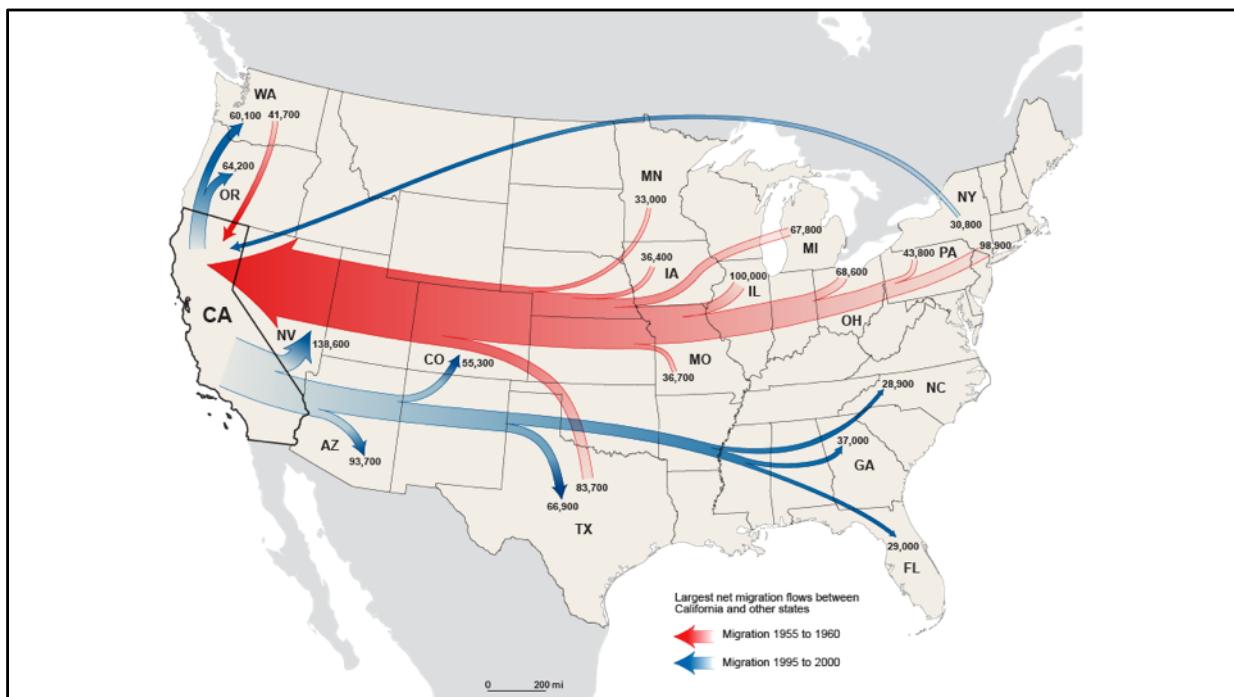
The change in share of Blacks in cities is based on the percentage point difference in the percent of population that was Black in the later time period compared to the earlier. For example, 18.3 percent of the population in Gary, IN was Black in 1940 but was just 2.3 in 1910, which represented a 16.0 percentage-point change in the share of Blacks in the city. It was the largest change in share during the First Great Migration. By the end of the Second Great Migration, Newark, NJ had realized the largest increase in Black population share, with the Black proportion of the city rising from 10.6 in 1940 to 54.2 in 1970.

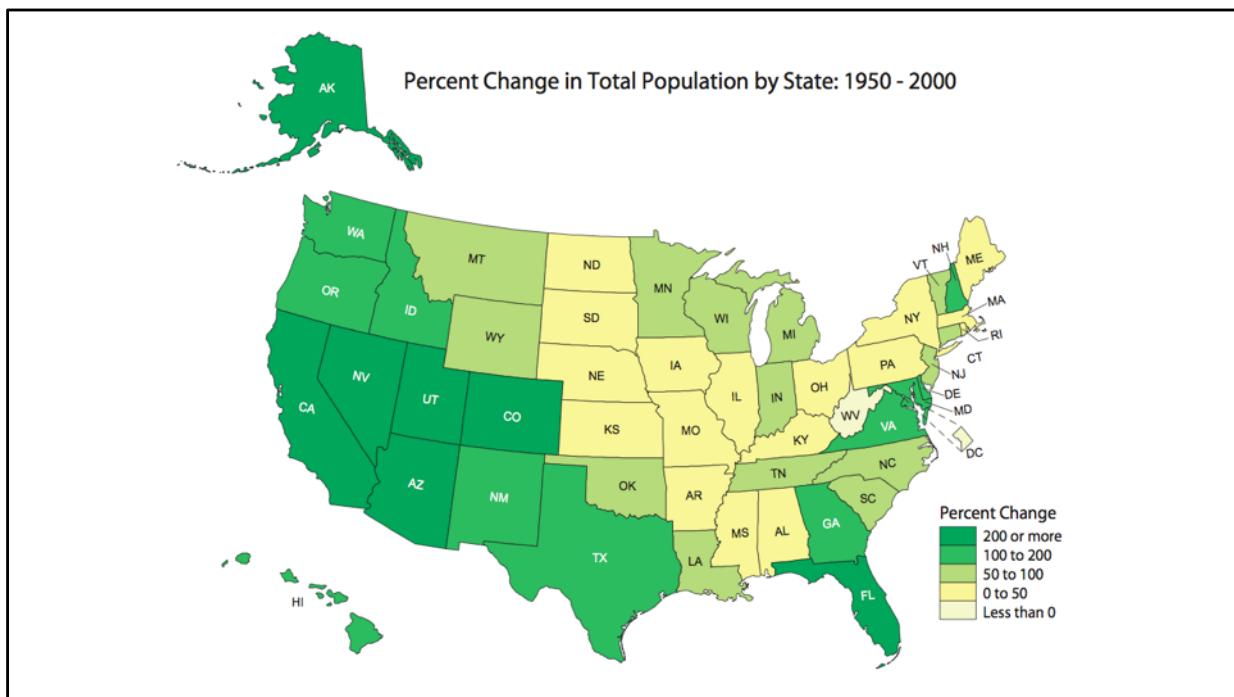


## Large Historical Migrations in the US

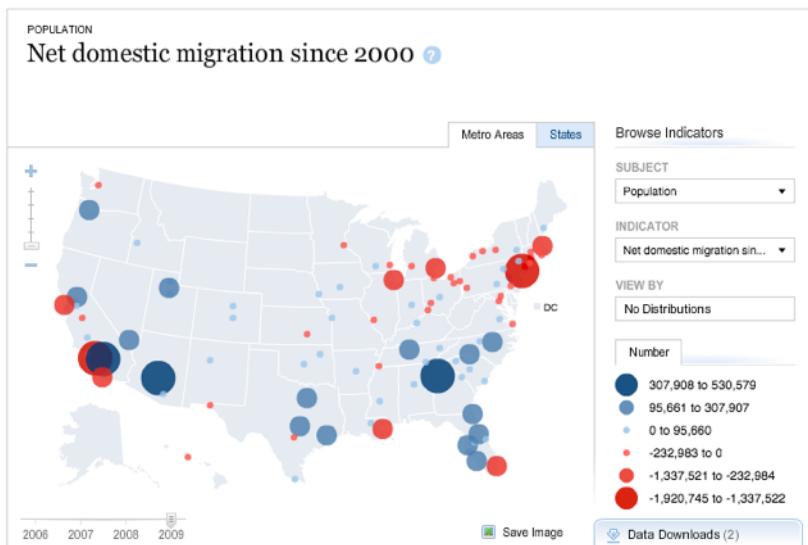
- Western Frontier (17<sup>th</sup> c. – 19<sup>th</sup> c.)
- The Great Migration (1910-1970)
- Westward/Sun Belt Migration

In the Middle of the 20<sup>th</sup> century, we see Americans migrating south and west both for retirement and for jobs.





## Where are People Moving Now?



## Where are People Moving Now?

<http://www.forbes.com/special-report/2011/migration.html>

[http://www.nytimes.com/2014/08/16/upshot/  
mapping-migration-in-the-united-states-since-1900.html](http://www.nytimes.com/2014/08/16/upshot/mapping-migration-in-the-united-states-since-1900.html)

First Link: Interactive Map where you can click on any county to see which counties are sending the most people to that county and which are drawing the most people from those counties.

Second Link: Map of state composition based on what states residents were born in

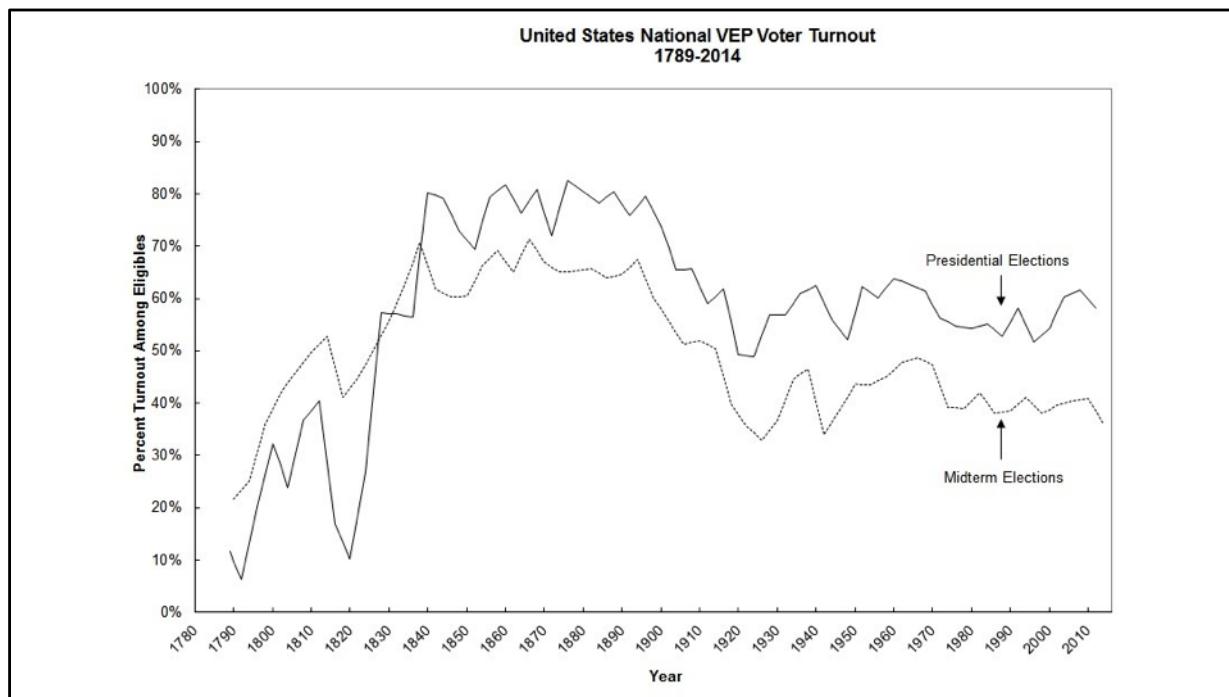
Questions?

## Plan for Today

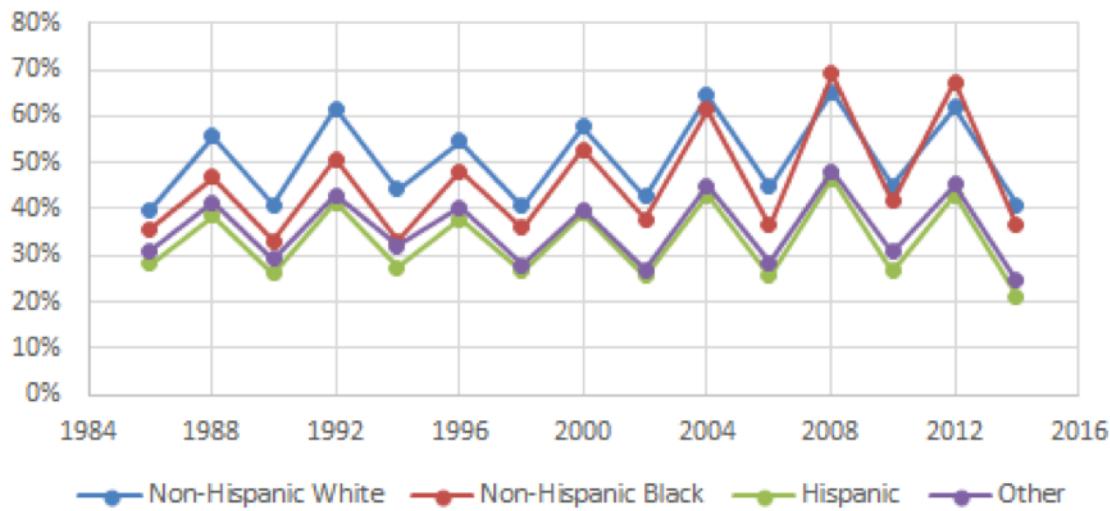
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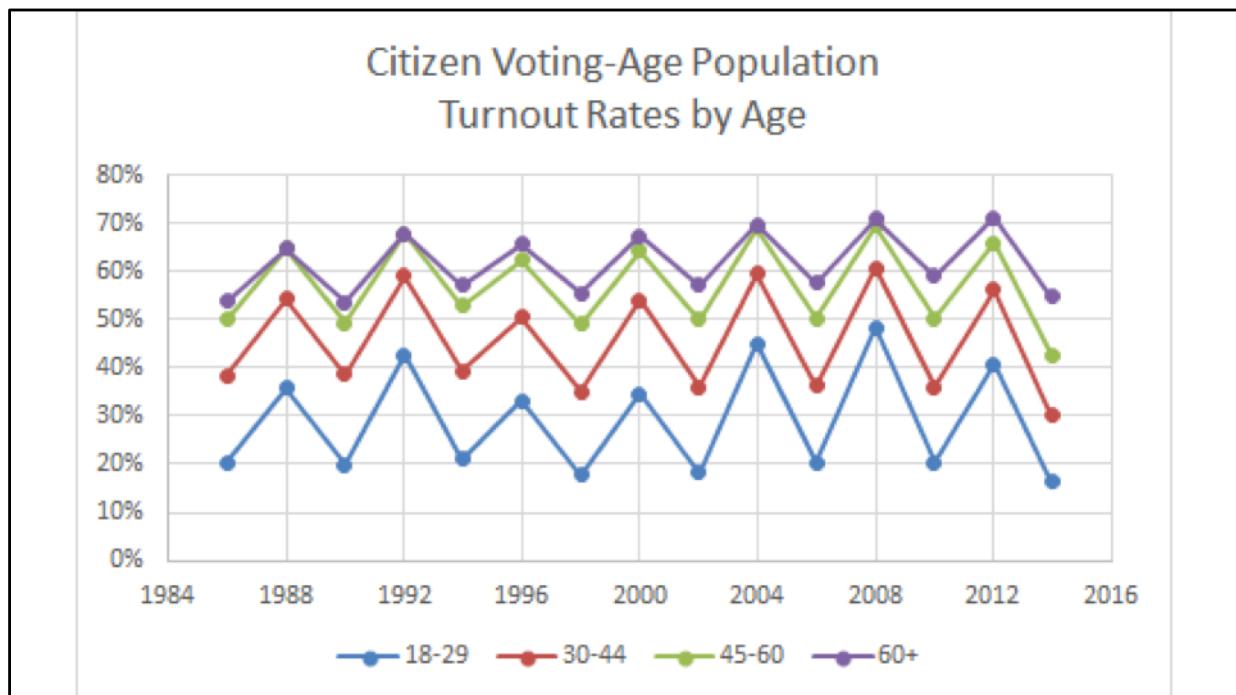
## What Percentage of Eligible US Voters Vote?

Regardless of your political leanings, if you are a registered voter, get out and vote! If you haven't completed your mail in ballot, you can vote in person. The nearest in person voting site is at Union Station (on S. Jackson Street) and is open until 8pm.

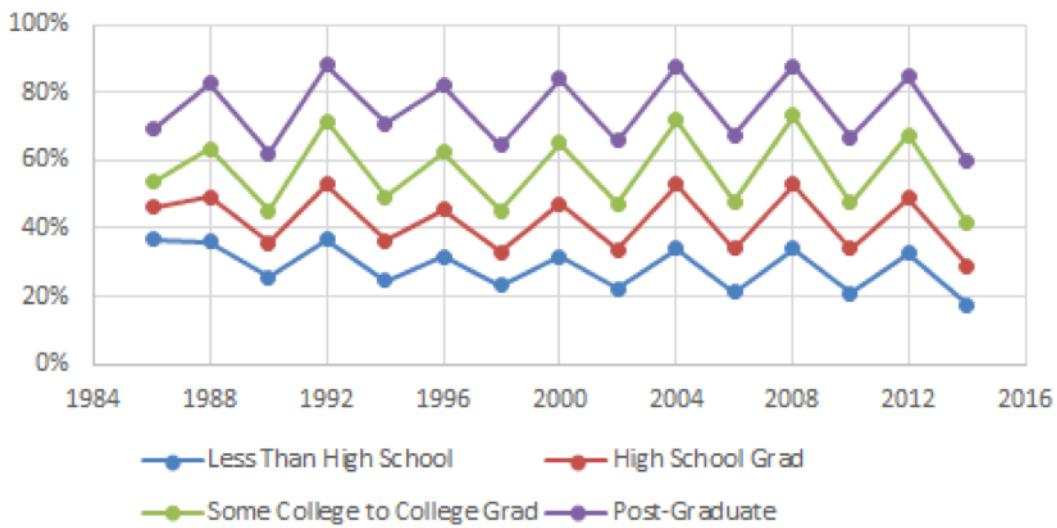


### Citizen Voting-Age Population Turnout Rates by Race and Ethnicity





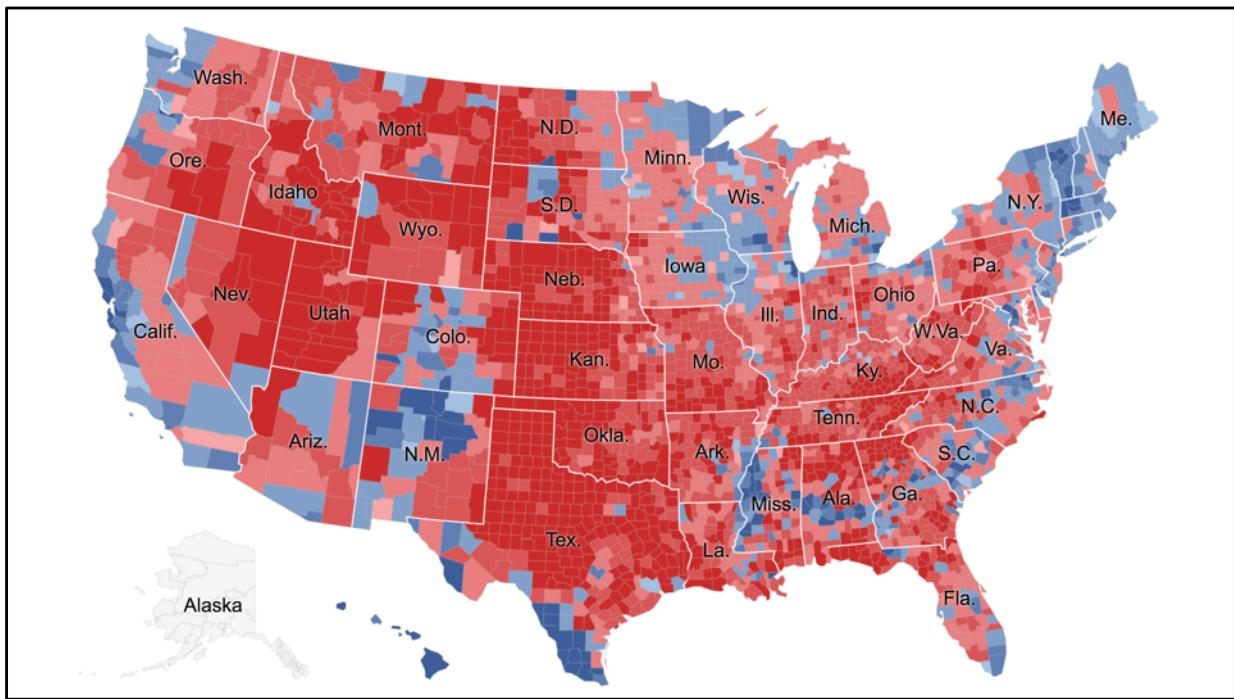
### Citizen Voting-Age Population Turnout Rates by Education

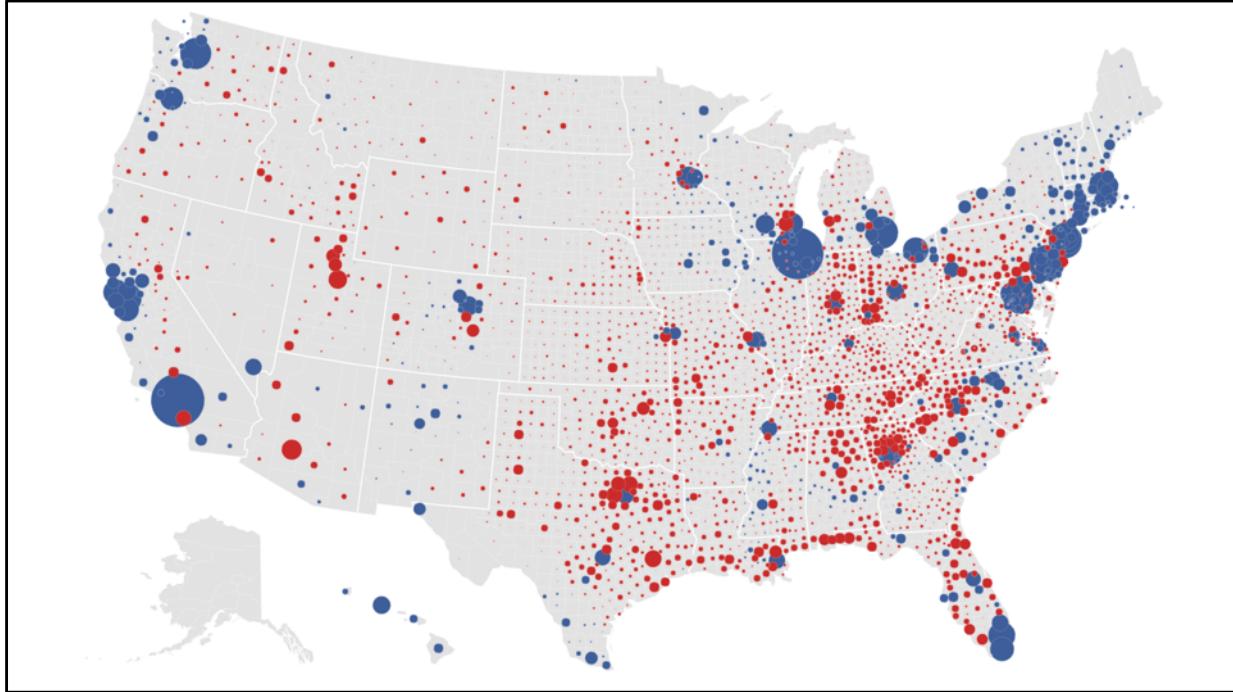


## Is Most of the US Republican or Democrat?

What do you think?

Republican by area, Democrat by population.

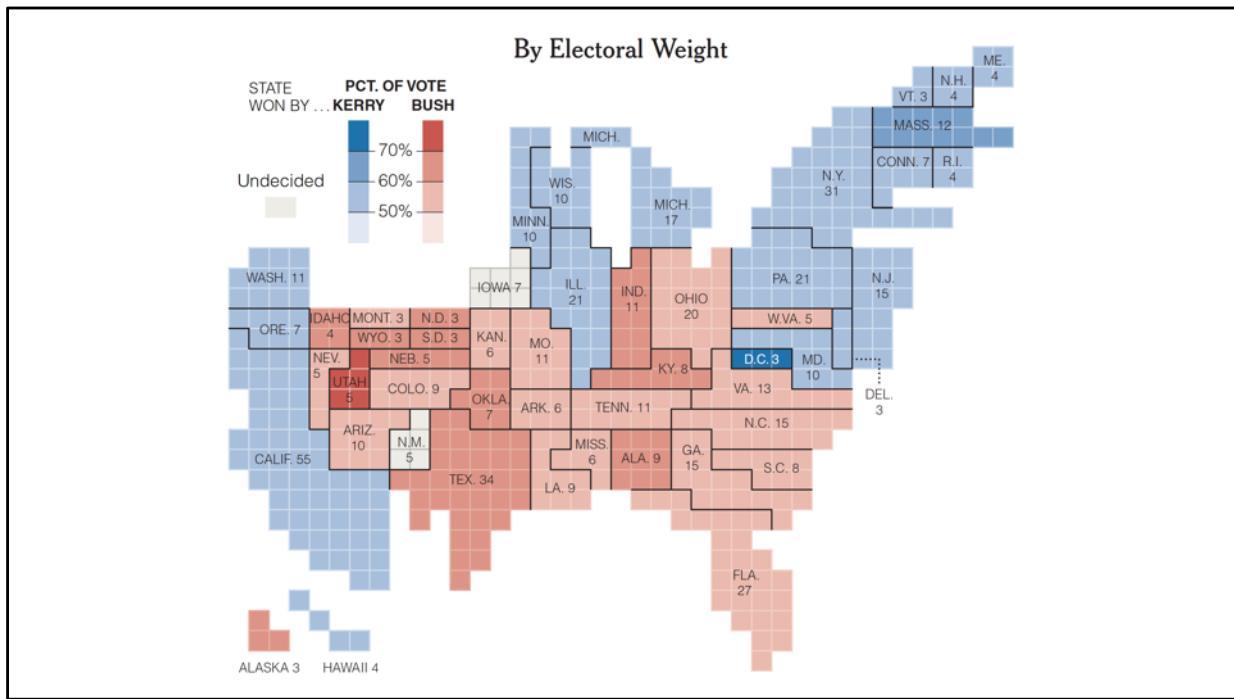




In April 2015 (pre Trump), 24% of the population was registered republican and 38% of the population was registered or leaned republican. 31% of the population was registered democrat and 47% were registered or leaned democrat.

These numbers fluctuate highly month to month.

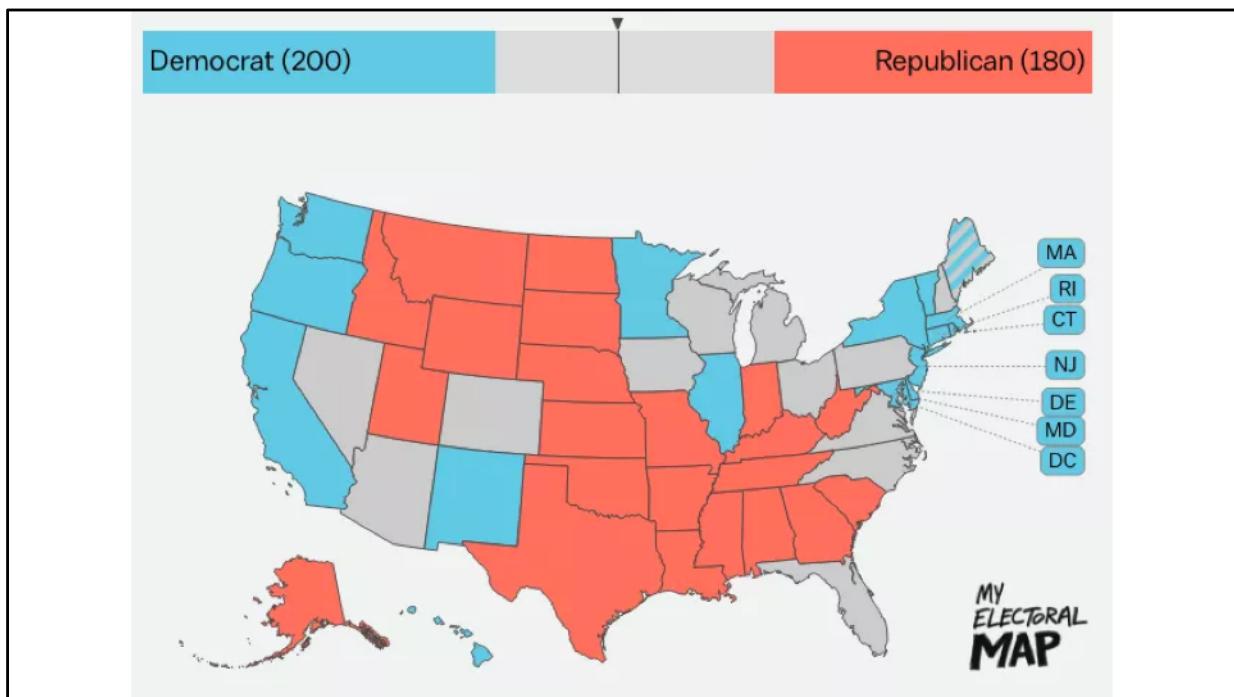
Data from Gallup (<http://www.gallup.com/poll/15370/party-affiliation.aspx>)



Map is based on the Bush-Kerry election of 2004.

This is an effect of redistricting (and sometimes gerrymandering)

So, how do we read an electoral college map? How many electoral college votes does a candidate need to win? (270)



Here is a map of the states that are not considered ‘battleground’ states.

Remember from Assignment 1, what a battleground state is?

Note that Maine has stripes (this means that  $\frac{1}{2}$  of Maine’s votes are non-battle ground votes, two might be). Maine and Nebraska are the only non all-or-nothing states.

So each candidate is actually competing for the grey states to try to get their numbers above 270. If any of you have traveled to any of the grey states in the last month, you likely saw political adds everywhere!

Which of the grey states do you think are most important? (the ones with the most electoral votes)

Florida: 29

Pennsylvania: 20

Ohio: 18

Michigan: 16

North Carolina: 15

Virginia: 13

Arizona: 11

Wisconsin: 10

Colorado: 9

Nevada: 6

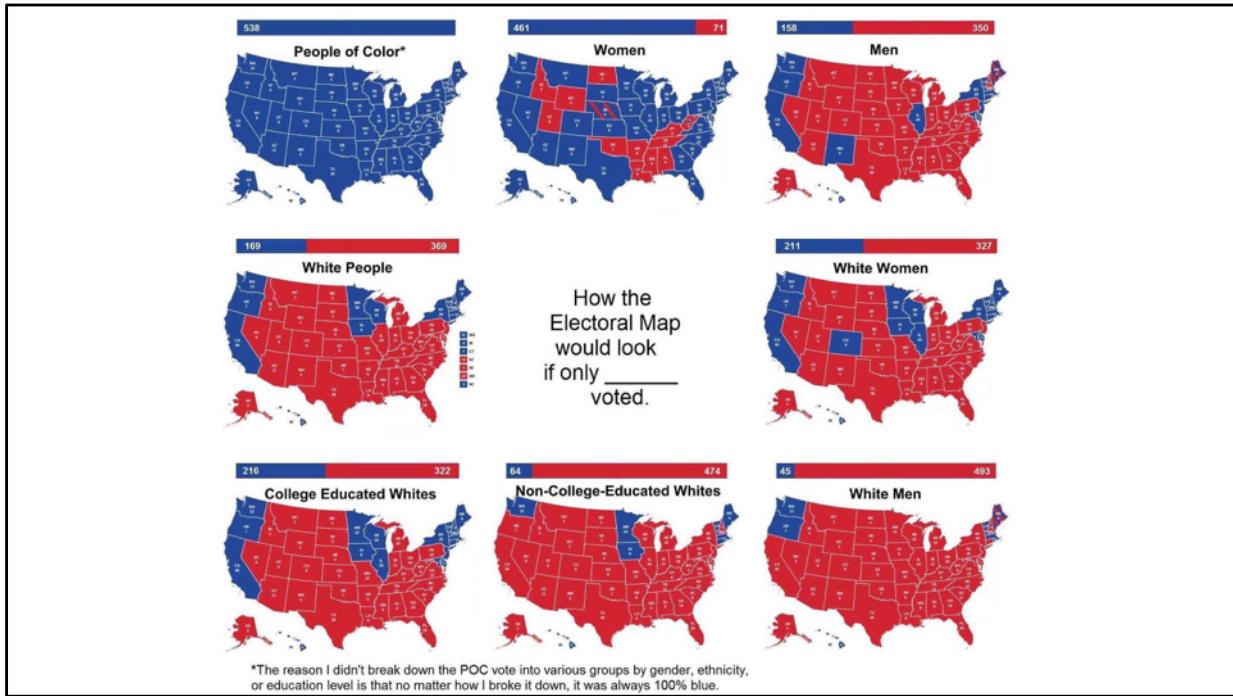
Iowa: 6

New Hampshire: 4



Note: The colors on this map don't mean anything.

Questions?



538

## People of Color\*



\*The reason I didn't break down the POC vote into various groups by gender, ethnicity, or education level is that no matter how I broke it down, it was always 100% blue.

169

369

## White People



64

474

## Non-College-Educated Whites



**216**

**322**

## **College Educated Whites**



45

493

## White Men



**158**

**350**

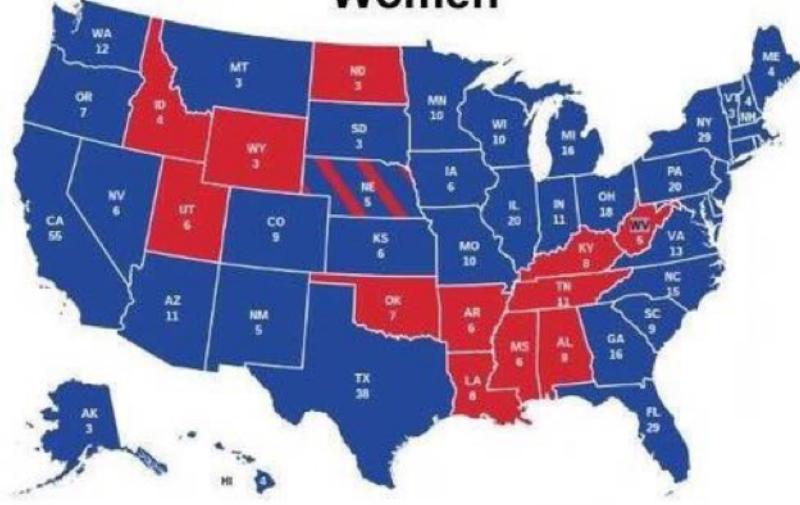
### **Men**



461

71

## Women



**211**

**327**

## **White Women**



Note: Washington is one of the few states that remains blue in all of the maps presented in this segment, so there is near certainty that Washington is going to give its electoral college votes to Hillary Clinton. That being said, it is still important to vote! There are a lot of things on the ballot this year that will likely affect our lives as much as the presidential election.

Questions?

## So what is the election really about?

- Class

Historically, the democratic party was the party of poor whites/whites without a college education. This has shifted in the last thirty years. This election is predicted to see huge splits between blue collar and white collar (what do these terms refer to?) voters with Trump favored among blue collar voters and Clinton among white collar voters.

Why this gap between college educated and non-college educated voters?

One of the things to watch in this election is whether Trump can get a higher turnout rate of blue collar voters than previous elections have.

## The Ecological Fallacy

When you make inferences (guesses) about an individual based on population statistics.

Demographic data does not allow us to do this accurately and it is an easy way to slip into **discrimination and stereotyping**.

This seems like a fitting time to remind you all of the ecological fallacy. Can someone please give me an example of the ecological fallacy relating to this election?

## So what is the election really about?

- Class
- Race/Ethnicity

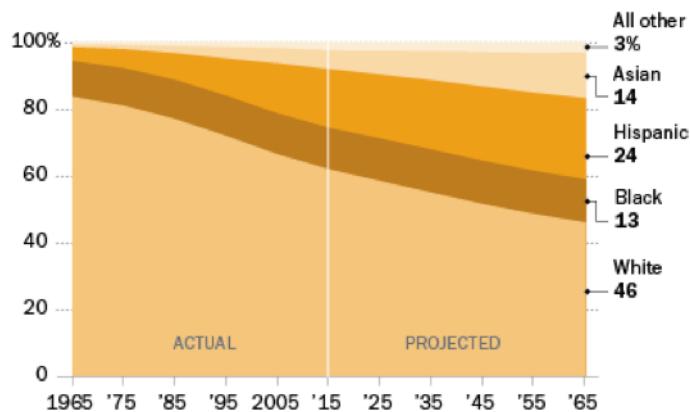
Growths in the democratic party in recent years have largely mirrored the growth in the minority population who disproportionately vote democrat. Again, this is a shift from the historical trend in which the democratic party was the party of southern whites arguing against emancipation before the Civil War.

Minorities hold about 26% of the vote share. (This was up to 28% during the Obama elections when black voters turned out in record numbers, but is expected to drop back down to about 26% in this election)

So, one thing to watch in this election is whether the predicted high turnout amongst Latino voters is enough to swing states such as Arizona, Colorado, Nevada, and even Texas to the democratic party.

## The changing face of America, 1965–2065

% of the total population



Note: Whites, blacks and Asians include only single-race non-Hispanics; Asians include Pacific Islanders. Hispanics can be of any race.

Source: Pew Research Center 2015 report, "Modern Immigration Wave Brings 59 Million to US, Driving Population Growth and Change Through 2065"

PEW RESEARCH CENTER

## So what is the election really about?

- Class
- Race/Ethnicity
- Gender

This election is expected to produce the biggest gender gap in a national election ever.

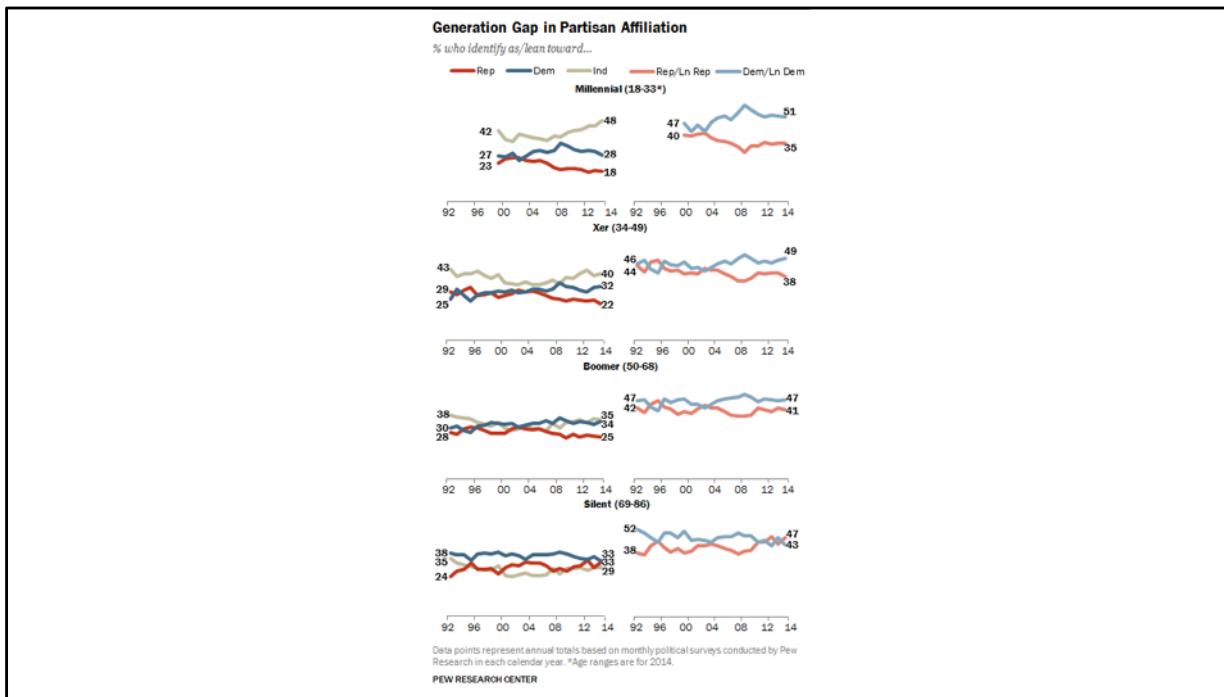
While women tend to vote slightly more democratic than their male counterparts, we are seeing that slight margin shoot into a giant chasm in this election. The chasm is greatest among single women (as compared with married women who tend toward republican voting).

## So what is the election really about?

- Class
- Race/Ethnicity
- Gender
- Age

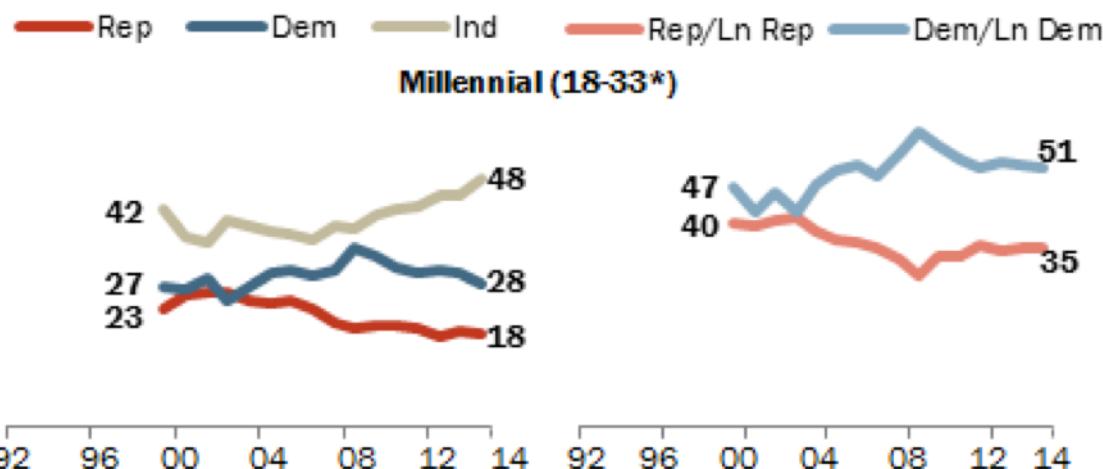
Democrats have (since Millennials began casting presidential ballots in 2000) maintained an advantage amongst Millennials/young voters. As more millennials reach voting age, the under 30 years of age voters have tended to vote democrat, but the margin by which they did decreased in Obama's reelection vote (2012)/

For the first time ever, this year, Millennials will equal Baby Boomers as a share of eligible voters. Do you think Millenials or Baby Boomers tend to vote more democrat? (Millenials! 44% of Millenials are people of color. 80% of Baby Boomers are white). That being said, Millenials as a voting block, aren't particularly in love with Clinton and many have reported plans to vote for third party candidates when polled.



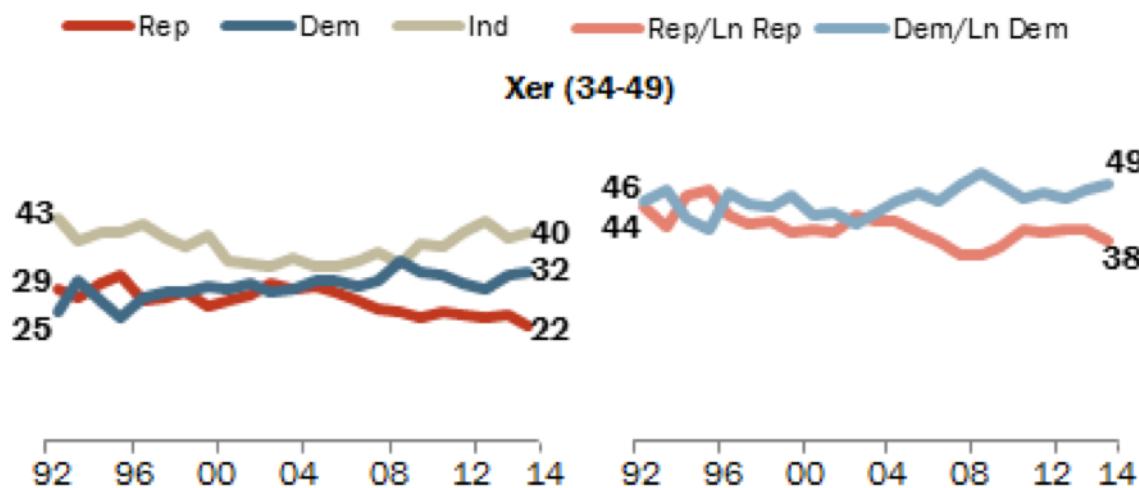
## Generation Gap in Partisan Affiliation

% who identify as/lean toward...



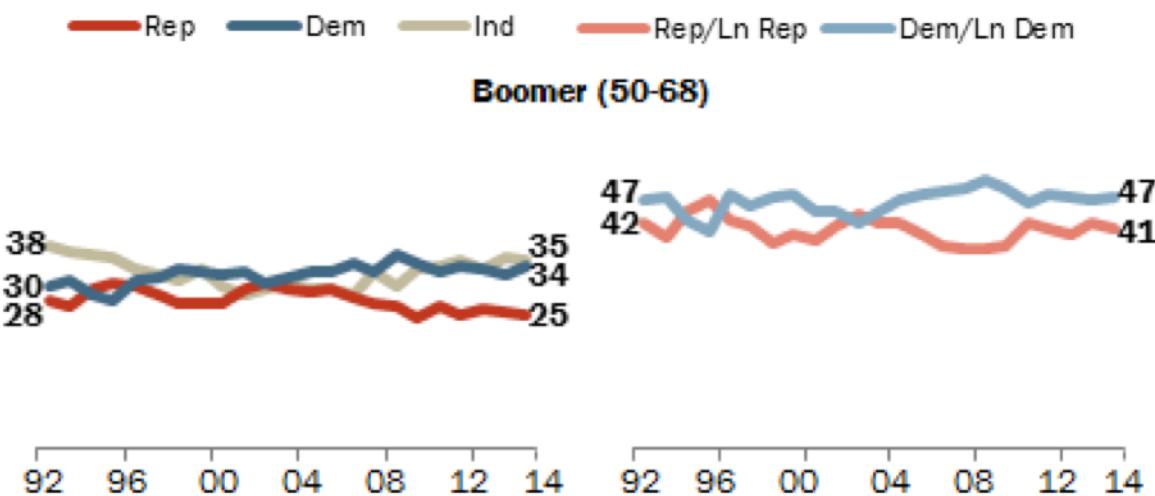
## Generation Gap in Partisan Affiliation

% who identify as/lean toward...



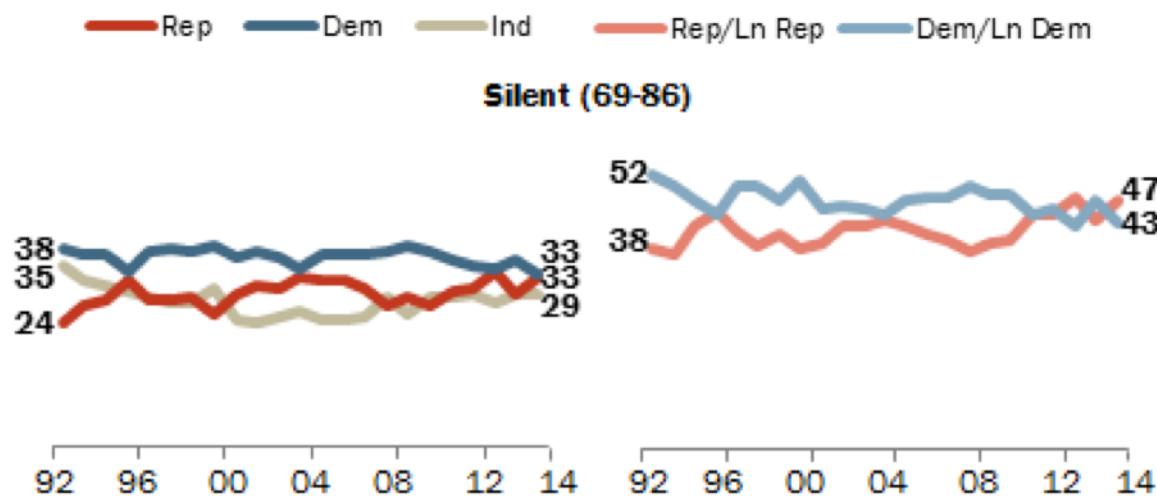
## Generation Gap in Partisan Affiliation

% who identify as/lean toward...



## Generation Gap in Partisan Affiliation

% who identify as/lean toward...



## So what is the election really about?

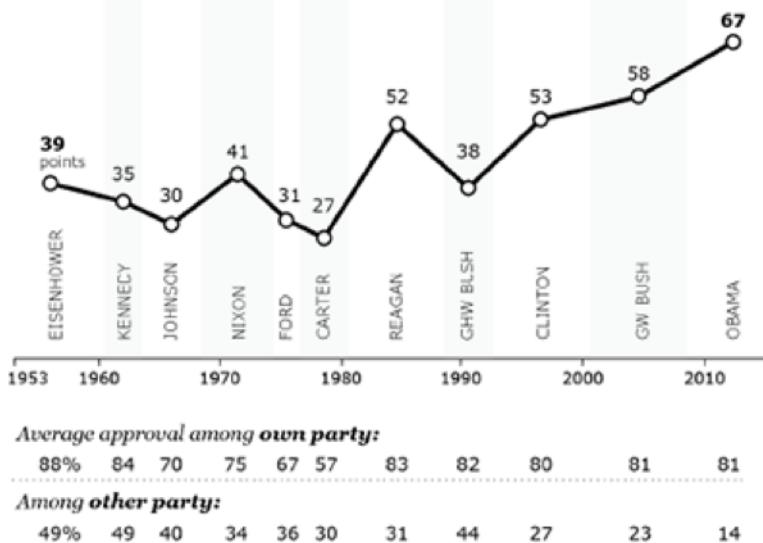
- Class
- Race/Ethnicity
- Gender
- Age
- Partisanship

Americans were showing unprecedented rates of partisanship before this election. This election, however, has thrown that into air because of the tumultuous relationship between Trump and the republican party.

So, this election it will be interesting to watch if those party lines continue to deepen or not.

## The Rising Partisan Gap in Presidential Approval

Average percentage point gap in approval rating between each president's own party and the other party



Questions?

## Stark County

<http://www.politico.com/2016-election/results/map/president/ohio/>

How many of you thought the county would go to Trump? Clinton?

While no votes are yet in, I have included this link so that those of you who want to follow the vote in Stark County, Ohio tonight can. We will revisit this on Thursday.

Questions?