Self Assessment
Which of the following best describes you?
- a) Had no class on population, not interested in it, but have to take this course
- b) Had no class on population, know little about population
- c) Had no class on population, have always been interested in population
- d) Had one or more classes on population

Team Formation
- Line up according to how you scored yourself in self assessment.
- Form four teams
- Sit with your team members at the same place for the rest of the semester
- You have 3 minutes:
  - Introduce yourself to your team;
  - Name your team (be creative!)
  - Write team name on the folder

Team Activity #1
- If you were the new head of the United Nations, and you would like to change the world for better, how do you choose the top three problems to begin with?
  - List and rank your choice
  - Why?
  - Share with your team, discuss, reach a team ranking, why?
  - Write on the board

Nearly everything is connected to population
- There is a demographic aspect in each problem
- Population may be at the root of most problems

- Globalization
  - Search for cheap labor
- Terrorism and regional conflict
  - Aggravated by the youth bulge in the Middle East and South Asia
- Violence and poverty in sub-Saharan Africa
  - Aggravated by high birth rates and issues arising from HIV/AIDS
Nearly everything is connected to population

- Backlash against immigrants
  - Aggravated by xenophobia in the face of the need for workers in the richer, aging countries

- Degradation of the environment
  - Every person added to the population requires energy to prepare food, provide clothing and shelter, and fuel economic life.
  - Can we feed everyone?
  - Can we pull everyone out of poverty?
  - ...

Team Activity #2:
WHY do I need to study population?

- You have five minutes to do the following:
  - Fold a piece of paper into half vertically
  - On the left:
    - Write down the name of your discipline at the top
    - List how this course can help your disciplinary inquiry
  - On the right:
    - List how this course can help you personally
    - Pass it on to the next person in your team, who will add to your list; Pass it on ...
    - Go back to the person who started the list

How is population affecting your life?

- Global Politics:
  - Regional conflict, terrorism, globalization, immigration

- Regional/local politics
  - # of seats in House of Representatives; Political campaigns; Policies (tax, social security, immigration) ...

- Socio-economic infrastructure/planning:
  - Schools; hospitals; police; jobs; housing ...

- Business in your neighborhood
  - Marketing; site selection; investment

- Environment:
  - Global warming; desertification; deforestation; air pollution; water/food shortages ...

So hopefully we all agree studying population potentially can be very beneficial, academically and personally.

Now the question is:
- How to best learn population to reap the benefits?

The Million Dollar Question

- Thinking of what you want to get out of your college education and this course, which of the following is the most important to you?
  - A) Acquiring information (facts, principles, concepts)
  - B) Learning how to use information and knowledge in new situations
  - C) Developing lifelong learning skills

- Write down your own answer on a piece of paper
- As a team: choose the answer
All Three Goals are Important

- Which goal(s) do you think you can make headway outside of class by your own reading and studying?
- Which goal(s) do you think would be best achieved in class working with your classmates and me?

A) Acquiring information (facts, principles, concepts)
B) Learning how to use information and knowledge in new situations
C) Developing lifelong learning skills

Research shows

- Students learn best when they take an active role in learning
  - When they discuss what they are reading
  - When they practice what they are learning
  - When they apply practices and ideas

The way the brain actually learns

The Learning Cycle from David Kolb


Team Based Learning (TBL)

- Most class time is spent on team tasks/activities (instead of lectures) in the form of decisions that lead to reflection (discussion), clarifications.
- Attendance and preparation are essential
The course is made of several units:

Unit structure

- 1) Individual “readiness assessment test” (iRAT) on assigned readings
  - This is a closed-book, no notes test!
  - You have 10 minutes to complete the test.
  - Circle the correct answers on the answer sheet provided.
  - Also record your answers on the question sheet.
  - When you are done, turn over your paper to signal that you have finished.
  - Turn in the answer sheet

- 2) tRAT: team RAT

Take the quiz again—as a team (Closed Book!)

- You have 10 minutes
- Designate one person to be the official team “scratcher.”
- Don’t select an answer until your team agrees.
- Use a coin or a key to scratch.
- You’ll know you have the correct answer when you find the star!
- Use the score blanks to record and calculate your score (next slide)

Directions for Scoring tRAT

If you don’t find the correct answer on the first try, keep trying to earn partial credit. Here’s the scale:

- Right answer on 1st try = 10 points
- Right answer on 2nd try = 5 points
- Right answer on 3rd try = 3 points
- Right answer on 4th or 5th try = 0 points

Appeals

- You have the right to appeal as a team any questions that you believe were misleading, not clear, unfair, or inaccurate.
- Your appeal must be completed by the entire team and must be submitted in writing.
- Your statement must specifically explain the grounds of your appeal and must cite specific information from the text as evidence to support your argument.
Guidelines for preparing successful appeals

SUCCESSFUL Appeal
- The points missed will be added to:
  - their group score.
  - the score of any individual in the group who answered the same as the group.
  - only those groups that appeal.
- Team member(s) who had the original “correct” answer will continue to receive credit on the question.

FAIL TO appeal:
- teams which choose not to appeal will not be granted scores from other team’s successful appeal.

Appeals
- Provide opportunities to clarify concepts/ideas, read the text more closely, and understand the materials better.
- Give credit when “missing” a question was caused by:
  - ambiguity in reading
  - ambiguity in the wording of the question
  - disagreement between reading and the choice of the “correct” answer
- Does any team want to appeal on any question?
- Hand out: how to appeal

Concerns: “I do not like team projects, because everyone else is lazy, I have to do all the work …”
- Relax! Your team is different
  - TBL design ensures teams are different from conventional team projects
- Team activities are done in class, thinking, discussing and deciding.
- Individual accountability
  - Individual scores: 75%
  - Peer evaluation: 5%
iRAT vs. tRAT

Research shows that teams almost always perform better than individuals!
- No need to worry that your performance will be compromised by your team
- You benefit from your team!

Peer Evaluation

☐ What kind of behaviors are helpful to turn your team into "super learning machine"?

☐ Take 3 minutes to list top five "helpful behaviors" for your team

☐ Write on the board

Peer Evaluation

☐ My list
  - Preparation
  - Participation and contribution
  - Helps group excel
  - Team player
  - Respect others and different ideas

☐ Agree on a common list
  - Will be used for peer evaluation later in the class
  - You can use it to guide your behavior

Reading is crucial

☐ Complete RAT
☐ Make a successful appeal
☐ Participate in team activities

How to read

Student view: "READ"  
= move my eyes over words until I run out of pages—because you told me to.

Expert view: "READ"
  = reading as hypothesis testing
  = look for what I need to find out
  = check my own current understanding
  = challenge/revise what I think I already believe/know

Reading as decision-making

Is this paragraph (that I’m now reading)...
  ...critical or accidental?
  ...describing a key concept or just another illustration/example?
  ...relevant to the task or just interesting?
Read critically: rules

- Never read without specific questions you want the text to answer
- Never start reading at page 1.
- Think critically as you read
- Treat critical reading as a skill which can be developed through practices.

Defining Demography

- The scientific study of human populations
- Demography is concerned with virtually everything that influences or can be influenced by:
  - Population size
  - Population growth/decline
  - Population distribution
  - Population processes: birth, death, migration
  - Population structure: age, sex, household, spatial
  - Population characteristics

Course Description

- Helps you develop a demographic perspective
- Introduces main concepts, theories & debates
- Discusses world population pattern and regional variations
- Studies population processes and structure
- Examines contemporary issues related to population, provide policy recommendations

Course Structure: Four Sections

- A demographic perspective
  - Global pattern, theories and demographic resources
- Population processes
  - Fertility, mortality, and migration
- Population structure and characteristics
  - Age, sex, household structure, urbanization
- Using the Demographic Perspective
  - Environment, economic development, population policies

General Education Requirements

- Fulfills the “Oral Discourse” requirement
  - Make a PowerPoint presentation
  - Make a coherent statement during the debate
  - Appropriately answer questions during debates and the presentations
  - Ask critical questions during debates and presentations
  - Participate team discussion and contribute to team activities
  - Discuss news and daily events from a demographic perspective

- Fulfills the “International Perspectives”
  - Study population in any region or comparatively from a demographic perspective
  - Analyze population and related issues from different demographic perspectives
  - Understand the reciprocal interactions between individual behaviors and population at the national and global level
  - Understand the impact of population policy on population and the society nationally and globally
  - Understand how immigration policy in the US affect the global migration pattern
  - Explain how the family planning program in China affect the world economy
  - Understand how the aging population and population decline in developed countries affect the global economy
Critical Thinking

- Controversial issues
- Open to different views
- Being critical: check assumptions, examine merits and shortcomings, provide critique...
- Discussion on news events
- Team discussion
- Debates

Next class

- To model future classes, we will do a RAT on syllabus
  - Read syllabus
- Team activities

Reading for the 1st unit

- PG: introduction, 1, 2
- Through out the semester, read news on population, discuss/share in class

Second Class

To model future classes ...

- Individual “readiness assessment test” (iRAT)
  - This is a closed-book test!
  - You have 10 minutes to complete the test.
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- News on population?
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Team Activity

- Did anyone (individual) beat the team’s score?
- Does any team want to appeal?
- Any question about the syllabus and the course?

The Big Picture

- U.S. and World Population Clock

World Population Growth over Time
### Population Growth:
**Number of years to add each billion (year)**

<table>
<thead>
<tr>
<th>First Billion</th>
<th>Second Billion</th>
<th>Third Billion</th>
<th>Fourth Billion</th>
<th>Fifth Billion</th>
<th>Sixth Billion</th>
<th>Seventh Billion</th>
<th>Eighth Billion</th>
<th>Ninth Billion</th>
</tr>
</thead>
<tbody>
<tr>
<td>(2054)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>


### North vs. South
**Replacement fertility**

[Map of the world showing population distribution]

### World Population Growth Is Almost Entirely Concentrated in the World’s Poorer Countries.

[Graph showing population growth in less developed countries versus more developed countries]


### Understanding the spike in China’s birth rate

**From one-child policy to celebrating high fertility**

[Chart showing changes in Chinese births]

Source: National Bureau of Statistics; press reports

### The Differences Between Developed and Developing Countries Can Be Stark

**The Demographic Divide**

<table>
<thead>
<tr>
<th>KEY DEMOGRAPHIC INDICATORS</th>
<th>CANADA</th>
<th>UGANDA</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009 Population</td>
<td>34 million</td>
<td>31 million</td>
</tr>
<tr>
<td>2050 Population (Projected)</td>
<td>42 million</td>
<td>96 million</td>
</tr>
<tr>
<td>Percent of Population Below Age 15</td>
<td>17%</td>
<td>49%</td>
</tr>
<tr>
<td>Percent of Population Age 60 and Older</td>
<td>14%</td>
<td>3%</td>
</tr>
<tr>
<td>Percent of Population Ages 15 to 24</td>
<td>13%</td>
<td>26%</td>
</tr>
<tr>
<td>Annual Births</td>
<td>371,000</td>
<td>1.4 million</td>
</tr>
<tr>
<td>Lifetime Births per Woman</td>
<td>1.6</td>
<td>6.7</td>
</tr>
<tr>
<td>Annual Infant Deaths</td>
<td>1,000</td>
<td>116,000</td>
</tr>
<tr>
<td>Life Expectancy at Birth</td>
<td>78 years</td>
<td>50 years</td>
</tr>
</tbody>
</table>

Team Activity

What do you think is the main reason for the European Debt Crisis?

- A) corrupt government
- B) bad economic policies/programs
- C) population aging
- D) rapid population growth
- E) influx of immigrants

U.S.
The Past Is a Foreign Country

<table>
<thead>
<tr>
<th></th>
<th>1900</th>
<th>2000</th>
</tr>
</thead>
<tbody>
<tr>
<td>World population (billions)</td>
<td>1.6</td>
<td>6.1</td>
</tr>
<tr>
<td>U.S. population (millions)</td>
<td>76</td>
<td>281</td>
</tr>
<tr>
<td>U.S. percent of world total</td>
<td>4.8%</td>
<td>4.6%</td>
</tr>
<tr>
<td>Life expectancy</td>
<td>47</td>
<td>77</td>
</tr>
<tr>
<td>Children per woman</td>
<td>3.5</td>
<td>2.1</td>
</tr>
</tbody>
</table>
The Past Is a Foreign Country

<table>
<thead>
<tr>
<th></th>
<th>1900</th>
<th>2000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Immigrants from Italy (1900–1910); (1990–2000)</td>
<td>2 million</td>
<td>63,000</td>
</tr>
<tr>
<td>Immigrants from Mexico (1900–1910); (1990–2000)</td>
<td>50,000</td>
<td>2.2 million</td>
</tr>
<tr>
<td>% Foreign-born</td>
<td>13.6%</td>
<td>11.1%</td>
</tr>
<tr>
<td>% Urban</td>
<td>40%</td>
<td>80%</td>
</tr>
</tbody>
</table>

If the past was a foreign country, what does that say about the future, given expected population changes?

Team Activity

- In 2050, most of you will be around 55-60 years old. What kind of world would you be living in 2050?
  - List top 3 main characteristics
  - Write on the board

Global Population in 2050

- 9.7 Billion
- Getting older: 1.5 Billion 65+

More developed regions have relatively high proportions of older persons.
Percentage change in population

<table>
<thead>
<tr>
<th>Age Group</th>
<th>United States</th>
<th>World</th>
</tr>
</thead>
<tbody>
<tr>
<td>Younger than 35</td>
<td>17%</td>
<td>100%</td>
</tr>
<tr>
<td>35 to 64</td>
<td>45%</td>
<td>100%</td>
</tr>
<tr>
<td>65 and older</td>
<td>33%</td>
<td>100%</td>
</tr>
</tbody>
</table>

Source: United Nations, Department of Economic and Social Affairs, World Population Prospects 2012 Revision, June 2013

Median age, 2010 and 2050

<table>
<thead>
<tr>
<th>Country</th>
<th>2010</th>
<th>2050</th>
</tr>
</thead>
<tbody>
<tr>
<td>Japan</td>
<td>48</td>
<td>60</td>
</tr>
<tr>
<td>South Korea</td>
<td>41</td>
<td>55</td>
</tr>
<tr>
<td>Germany</td>
<td>44</td>
<td>50</td>
</tr>
<tr>
<td>China</td>
<td>40</td>
<td>43</td>
</tr>
<tr>
<td>Brazil</td>
<td>29</td>
<td>33</td>
</tr>
<tr>
<td>Mexico</td>
<td>25</td>
<td>33</td>
</tr>
<tr>
<td>United States</td>
<td>37</td>
<td>34</td>
</tr>
</tbody>
</table>

Source: United Nations, Department of Economic and Social Affairs, World Population Prospects 2012 Revision, June 2013

Pressure on workers

<table>
<thead>
<tr>
<th>Region</th>
<th>2010</th>
<th>2050</th>
</tr>
</thead>
<tbody>
<tr>
<td>North America</td>
<td>69</td>
<td>66</td>
</tr>
<tr>
<td>Europe</td>
<td>40</td>
<td>46</td>
</tr>
<tr>
<td>South Africa</td>
<td>68</td>
<td>54</td>
</tr>
<tr>
<td>China</td>
<td>62</td>
<td>52</td>
</tr>
<tr>
<td>Japan</td>
<td>83</td>
<td>82</td>
</tr>
</tbody>
</table>

Source: United Nations, Department of Economic and Social Affairs, World Population Prospects 2012 Revision, June 2013

Global Population in 2050

- 9.7 Billion
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- Population shift to Africa

Global Population in 2050

- 9.7 Billion
- Getting older: 1.5 Billion 65+
- Population shift to Africa
- India becomes the largest population

Estimated population of U.S., China and India, 2010 and 2050

Global Population in 2050

- 9.7 Billion
- Getting older: 1.5 Billion 65+
- Population shift to Africa
- India becomes the largest population
- Population losers: Japan, Russia, Germany (>10%)

Estimated change in population for selected countries, 2010 to 2050

Reading for the 1st unit

- PG: introduction, 1, 2
- Through out the semester, read news on population, discuss in class
- RAT #1: Jan. 31st