



# Global Demographic Modules

Module Length: 6 hours

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## **Overview**

In this module, students will learn about global demographics. The main emphasis is on world population trends. Following an overview of population trends over time and the distribution of the world's population across different locations, the second unit reviews the key terms that demographers use to describe and understand population dynamics. The third unit summarizes the central ideas of two popular models of population change, while the fourth unit offers opportunities to rethink myths associated with the notion of an overpopulation crisis. The final two units focus on movements of people across the globe through a discussion of the explanations and implications of major migration flows, and a student assignment on family migration history.

## **Module Learning Objectives**

Through the completion of this module, participants will be able to:

1. Identify the major regional clusters where the world's population is concentrated
2. Explain the temporal and spatial trends in world population patterns
3. Evaluate the contending arguments about overpopulation threats
4. Apply demographic terms and concepts to the migration history of an individual family



## Key Terms and Concepts

**Crude Birth Rate:** the total number of live births in a year for every 1000 people alive in the society

**Crude Death Rate:** the total number of deaths in a year for every 1000 people alive in the society

**Demographic Transition Model:** Explanation for the transformation of countries from having high birth rates and high death rates to low birth rates and low death rates

**Dependency ratio:** proportion of the population that are dependents (under 15 or over 65). It is calculated by dividing the number of dependents by the total population (15-64).

**Infant mortality rates:** the number of deaths of children under the age of one *per thousand live births*.

**Life Expectancy:** The average number of years that an individual can be expected to live

**Maternal mortality rates:** is the death of a woman while pregnant or within 42 days of termination of pregnancy, irrespective of the duration and site of the pregnancy, from any cause related to or aggravated by the pregnancy or its management but not from accidental or incidental causes.

**Population growth** is the change in a population over time, and can be quantified as the change in the number of individuals of any species in a population using "per unit time" for measurement. Population growth is determined by four factors, births, deaths, immigrants, and emigrants.

**Population Density:** population divided by total land area.

**Population pyramid:** Inverted bar graphs that show a wide population base (younger population) with a narrow top (older population). Population pyramids show: age distributions, dependency ratios of those under 15 and over 65, and sex ratios (males vs. females)

**Natural Increase Rate:** The percentage of growth in a population. It is measured by subtracting the crude death rate from the crude birth rate. Usually developing countries have positive or high natural increase rate, while developed countries have a lower rate. Populations in developed countries may increase though due to migration.



**Total Fertility Rates:** the average number of children a woman will have in her childbearing years.

## Lesson Plans

### *Lesson 1: World Population Trends*

#### **Overview**

This is the first of three lessons on population trends, terms and theories. At the end of the lesson, students will be familiar with the pace of world population increase over the past century, and will be able to identify the four world regions where the world's population is concentrated.

#### **Relevant Learning Objectives**

1. Identify the major regional clusters where the world's population is concentrated
2. Explain the temporal and spatial trends in world population patterns

#### **Procedure**

##### Possible Classroom Activities

- Opening.  
(Time: 5 minutes) (Skills: Holistic Thinking) (Objectives 1 & 2) (Related Resources: Global Population Growth video)

Ask the students to reflect upon the three opening questions as they watch the opening video.

**Where** is the world's population distributed?

**Where** has the world's population increased?

**Why** is population increasing at different rates in different countries?

- PowerPoint Presentation.  
(Time: 20 minutes) (Skills: Holistic Thinking) (Objectives 1 & 2) (Related Resources: Module 5 lesson 1 PowerPoint and Density, Distance, Division in Sub-Saharan Africa reading, and Global Aging Crisis reading).

Discussion questions and answers provided in the notes sections of the PowerPoint.



- Discussion on World Population Projections.  
(Time: 15 minutes) (Skills: Holistic Thinking) (Objective 2) (Related Resources: Gillis reading).

Discuss the New York Times article about the UN forecast for 10.1 billion people by 2100. The instructor should choose either the NY Times article discussion or the sub-Saharan African discussion.

- Do you agree with the statement “Every billion more people makes life more difficult for everybody — it’s as simple as that,” said John Bongaarts, a demographer at the Population Council. Explain why or why not?
  - What is family planning? Do you think governments should be involved in deciding family size? What are the pros and cons?
  - What are some of the challenges facing developing countries vis-a-vie- population growth?
  - What factors (economic, cultural, political, etc.) contribute to a country’s fertility rate?
- Discussion: Demographics and Sub-Saharan Africa.  
(Time: 15 minutes) (Skills: Holistic Thinking) (Objectives 1 and 2) (Related Resources: “Density, Distance, and Division in Sub-Saharan Africa” reading).

Have the students read the “Density, Distance, and Division in Sub-Saharan Africa” article and discuss some of the reasons for Africa’s demographics in small group discussions. The instructor should choose either the NY Times article discussion or the sub-Saharan African discussion.

- Compare and contrast the triple disadvantages facing the continent? What do they have in common? How does history impact each of the disadvantages? How do these disadvantages compound?
  - Compare and contrast the different solutions offered to help Africa overcome its economic development challenges?
  - How does history impact each of the solutions
- Debate.  
(Time: 15 minutes) (Skills: Holistic Thinking and Cross-Cultural Communications)  
(Objective 2) (Related Resources: Population Growth video).

Show the Population Growth video. Divide the students into pairs to debate the final premise of the video: as the population increases the value of life decreases. Students should take a pro/con perspective. Students should sit in pairs and debate this quote. Students should be assigned either a “pro” or “con” perspective. Alternatively, students could be assigned roles for the debate (ie. Catholic priest in Mexico, factory worker in



China, 15 year old in Rwanda, etc).

- Reflection.  
(Time: 5 minutes) (Skills: Holistic Thinking) (Objective 2) (Related Resources: n/a)

The instructor should ask the students what impacts their perspectives on demographics and why? Possible answers: religion/country of birth/family size/year of birth/etc.

### Resources

- 2010 World Population Sheet. (2010). Population Reference Bureau. Retrieved from: <http://www.prb.org/Publications/Datasheets/2010/2010wpds.aspx>
- Demographics Lesson 1 PowerPoint. Retrieved from: <http://www.global-workforce.globalization101.org/wp-content/uploads/2012/03/Demographics-Lesson-1-Powerpoint.ppt>
- Density, Distance, and Division in Sub-Saharan Africa (n.d.) Retrieved from: [http://siteresources.worldbank.org/INTWDR2009/Resources/4231006-1225840759068/WDR09\\_18\\_GIM04web.pdf](http://siteresources.worldbank.org/INTWDR2009/Resources/4231006-1225840759068/WDR09_18_GIM04web.pdf)
- Gillis, Justin and Dugger, Celia. "U.N. Forecasts 10.1 Billion People by Century's End." The New York Times (2011, May 3). Retrieved from: [http://www.nytimes.com/2011/05/04/world/04population.html?\\_r=1&emc=eta1](http://www.nytimes.com/2011/05/04/world/04population.html?_r=1&emc=eta1)  
[Provides an excellent overview of demographics]
- Gavin, Michelle. Africa's Restless Youth. In Robert Jackson (Ed.), Annual Editions: Global Issues 2009/10 (25<sup>th</sup> ed). McGraw Hill. Accessible at [Article on the temporal and regional trends and implications, especially the shift to the developing world with a focus on Africa]
- Global Aging Crisis (16 February 2011). Retrieved from: <http://www.globalization101.org/news1/Global-Aging-Crisis>.
- Population Growth. (2010, April 19). Retrieved from: <http://www.youtube.com/watch?v=b98JmQ0Cc3k>.

### Optional Resources

- OneWorld Guides (n.d.) Retrieved from: <http://uk.oneworld.net/guides> [the guides on population and food security are helpful for lessons 1-4]
- Population Growth Over Human History. (2007, January 4). Retrieved from: [http://www.globalchange.umich.edu/globalchange2/current/lectures/human\\_pop/human\\_pop.html](http://www.globalchange.umich.edu/globalchange2/current/lectures/human_pop/human_pop.html)
- Susan Lewis, (2004, April 4). "Global Trends Quiz." NOVA. Retrieved from: <http://www.pbs.org/wgbh/nova/worldbalance/tren-flash.html>



## Lesson 2: Demographic Terms and Population Control Policies

### Overview

In this lesson, students examine key demographic terms and their definitions. They discuss population control policies, focusing on how factors such as poverty, culture, politics and gender influence population dynamics.

### Relevant Learning Objectives

2. Explain the temporal and spatial trends in world population patterns

### Procedure:

#### Possible Classroom Activities

- Hook.  
(Time: 5 minutes) (Skills: Holistic Thinking) (Objective 2) (Related Resources: n/a).

Ask the students: What factors determine a country's population size? Are any of these factors easily changed, why or why not?

- Present PowerPoint Presentation  
(Time: 25 minutes) (Skills: Holistic Thinking) (Objective 2) (Related Resources: Demographics Lesson-2 PowerPoint).

Discussion questions and answers provided in the notes section.

- Population Pyramid Activity.  
(Time: 10-60 minutes) (Skills: Holistic Thinking, Cross-Cultural Communications and Technology Skills) (Objective 2) (Related Resources: <http://www.prb.org/> and <http://prezi.com>).

Students construct/compare Population Pyramids.

Option A: Instructor brings copies of pyramids to class, and distributes to students

Option B: Students use computers in class to access the Population Reference Bureau website and obtain population pyramids for comparison.

For options A and B, at least two comparisons should be discussed—a) a classic pyramid—less developed country and b) a more-evenly distributed graph—more



developed country. If a third comparison is possible, a suggested case study is China as an intermediate.

Option C: Students work in groups to develop an online presentation. The groups choose one country (not the U.S.) and one organization/government ministry in that country. The presentation will be done from the perspective of that organization/government ministry.

The group analyzes how the population pyramid connects to globalization issues (social, cultural, political, historical, gender, environmental, etc. issues) in their chosen country. The key is to pick the countries with easy connections. For example: youth bulge in Egypt and Tunisia, aging population in Japan, One Child Policy in China, population control/rapid growth/poverty in India, population control/AIDS in Kenya (its the focus of the NOVA film), etc..

Option C requires outside research. Students can create their own pyramids in excel. Instructions to create a population pyramid in excel:

[http://www.uvm.edu/~agri99/spring2004/Population\\_Pyramids\\_in\\_Excel.html](http://www.uvm.edu/~agri99/spring2004/Population_Pyramids_in_Excel.html).

- Gender Discussion.  
(Time: 20 minutes) (Skills: Holistic Thinking) (Objective 2) (Related Resources: Brittan and Elliot article, The Challenge of Illiteracy Globally article, Maasai women's quest for an education video).

Engage students in a discussion of the role of the following four factors in influencing population dynamics across countries: gender, poverty, politics, and culture.

- How can educating women change a country's demographics and make a country richer?
  - What is the role of politics in influencing education?
  - Lack of women's education has been a problem for many years in countries around the world. Why do you think it persists, in spite of organizations such as the World Bank, which are willing to fund women's' education initiatives?
- Role Play and Discussion.  
(Time: 20 minutes) (Skills: Holistic Thinking and Cross-cultural Communications) (Objective 2) (Related Resources: BBC video and Greenhalgh reading)

Start the activity by showing the BBC video on China's One Child policy. Then divide the class into multiple roles to debate the policy: 1) government official, 2) businessmen, 3) women's activist, and 4) farmer.

Students should sit in groups of four and, as their character, discuss the continuation of



the One-China Policy.

- Discussion/Essay.  
(Time: 20 minutes) (Skills: Holistic Thinking and Cross-Cultural Communications)  
(Objective 2) (Related Resources: Mjelde-Mossey or Unnithan-Kumar or Carlo et al. readings)

How do culture systems play a role in constructing demographic processes such as family size, age of marriage and childbearing, the care of the elderly, etc. Students examine one of the following case-studies and write an essay or have a group discussion with others in the class who chose (or were assigned) the same reading.

- Demography Project.  
(Time: n/a) (Skills: Technology, Holistic Thinking and Cross-Cultural Communications)  
(Objective 2) (Related Resource: Appendix A)

This project is a group project. Groups can put their answers in a Wikispace site developed for the class. Alternatively, this assignment could be handed in in regular print format. This would serve as an excellent assessment piece.

- Conclusion/Reflection.  
(Time: 10 minutes) (Skills: Holistic Thinking) (Objective 2) (Related Resources: n/a)

Did anyone change their minds about the One Child Policy or about country choices pertaining to demographics? Why or why not? Was it difficult playing a role if you did not personally agree with it? What biases do you bring to the table, how is your opinion on this subject-matter formed?

## Resources

- Appendix A Demographics Country Project
- Brittan, Victoria and Elliott, Larry. (2000, February 28). Educating Girls is Life-Saving for the World. *The Guardian*. [Shows clear evidence that the ways to raise productivity, reduce child mortality, and reduce fertility rates is to educate girls.]
- Carlo, Gustavo and Koller, Silvia and Raffaelli, Marcela and De Guzman, Maria R. (2007). Culture-Related Strengths among Latin American Families: A Case Study of Brazil. In *Marriage & Family Review*, Vol. 41 Issue 3/4, 335- 360.
- Demographics Lesson 2 PowerPoint. Retrieved from: <http://www.global-workforce.globalization101.org/wp-content/uploads/2012/03/Demographics-Lesson-2-Powerpoint.ppt>



- Greenhalgh, Susan. (2002, September 23). Women's Rights and Birth Planning in China: New Spaces of Political Action, New Opportunities for American Engagement." Testimony. Retrieved from:  
<http://www.cecc.gov/pages/roundtables/092302/greenhalgh.php>
- Mjelde-Mossey, Lee Ann. (2007). Cultural and Demographic Changes and Their Effects Upon the Traditional Grandparent Role for Chinese Elders. In *Journal of Human Behavior in the Social Environment*, Vol. 16(3).  
[Excellent case study on the role of culture in influencing demographics]
- Maasai women's quest for an education. (2011, March 8). Retrieved from:  
<http://www.youtube.com/watch?v=c-sxE5V9aPk>
- Propaganda BBC News Report—Should we have a one child policy?. (2008, January 25). Retrieved from: <http://www.youtube.com/watch?v=TDkOjXOjNDo> (2 min)
- McFalls, Joseph A. (2007). *Population: A Lively Introduction* (5th Ed). Population Reference Bureau.
- Rubenstein, J.M. (2009). Chapter 2 Population. In *Human Geography*. Pearson Prentice Hall. [Background reading for professor]
- Unnithan-Kumar, Maya. (2010 February). Female selective abortion – beyond 'culture': family making and gender inequality in a globalising India. In *Culture, Health & Sexuality*, Vol. 12, No. 2, Vol. 12, No. 2, 153-166.

### Optional Resources

- Contraception & Pregnancy Indicators. (n.d.) Retrieved from:  
<http://www.guttmacher.org/idc/map.jsp#> [has good data sets]
- Contraception indicators. (n.d.). [data set]. Retrieved from:  
[http://www.gapminder.org/world/#\\$majorMode=chart\\$;shi=t;ly=2003;lb=f;il=t;fs=11;al=30;stl=t;st=t;ns=t;se=t\\$wst;tts=C\\$;sp=5.59290322580644;ti=2006\\$zpv;v=0\\$inc\\_x;mmid=XCOORDS;iid=phAwcNAVuyj1jiMAkmq1iMg;by=ind\\$inc\\_y;mmid=YCOORDS;iid=pyj6tScZqmEewsQOoKrtYJQ;by=ind\\$inc\\_s;uniValue=8.21;iid=phAwcNAVuyj0XOoBL%5Fn5tAQ;by=ind\\$inc\\_c;uniValue=255;gid=CATID0;by=grp\\$map\\_x;scale=log;dataMin=194;dataMax=96846\\$map\\_y;scale=lin;dataMin=0.8;dataMax=96\\$map\\_s;sma=50;smi=2\\$cd;bd=0\\$inds=i239\\_t001972,,,,;i249\\_t001981,,,,;i44\\_t001982,,,,](http://www.gapminder.org/world/#$majorMode=chart$;shi=t;ly=2003;lb=f;il=t;fs=11;al=30;stl=t;st=t;ns=t;se=t$wst;tts=C$;sp=5.59290322580644;ti=2006$zpv;v=0$inc_x;mmid=XCOORDS;iid=phAwcNAVuyj1jiMAkmq1iMg;by=ind$inc_y;mmid=YCOORDS;iid=pyj6tScZqmEewsQOoKrtYJQ;by=ind$inc_s;uniValue=8.21;iid=phAwcNAVuyj0XOoBL%5Fn5tAQ;by=ind$inc_c;uniValue=255;gid=CATID0;by=grp$map_x;scale=log;dataMin=194;dataMax=96846$map_y;scale=lin;dataMin=0.8;dataMax=96$map_s;sma=50;smi=2$cd;bd=0$inds=i239_t001972,,,,;i249_t001981,,,,;i44_t001982,,,,) [this is a great visual and the students can play around with it]
- Illiterate Women. (n.d.). World Mapper. Retrieved from:  
<http://www.worldmapper.org/display.php?selected=198> [interesting visuals]
- The Challenge of Illiteracy Globally. (n.d.). Global Literacy Project Inc. Retrieved from:  
[http://glpinc.org/Web\\_pages/Illiteracy\\_Globally.html](http://glpinc.org/Web_pages/Illiteracy_Globally.html) [the fourth and fifth charts are particularly good re: female educations vs. childbirth rates and female literacy vs. population growth]
- Politics of Birth Control. (2008, December 8). *Globalization101.org*. Retrieved from:  
<http://www.globalization101.org/politics-of-birth-control-2/>



### ***Lesson 3: Theories of Population Change***

#### **Overview**

In this lesson, students examine the debate on overpopulation. Students also compare and contrast the Demographic Transition Model (DT) and the Malthusian Models of population change.

#### **Relevant Learning Objectives**

3. Discuss the contending arguments about overpopulation threats

#### **Procedure:**

##### Possible Classroom Activities

- Introduction.  
(Time: 10 minutes) (Skills: n/a) (Objective 3) (Related Resources: National Geographic video)

Introduce the topic “Why might the world face an overpopulation problem?” Show YouTube video.

- Presentation of Demographic Transition Model.  
(Time: 15 minutes) (Skills: n/a) (Objective 3) (Related Resources: Lesson 3 PowerPoint and Kunzig reading).

Present the classic demographic transition (DT) model. Make sure to address the assumptions and limitations of the DT model. The Demographic Transition Model—DTM consists of 4 stages. Students should be taught the stages and the associated birth rates, death rates, and the population growth statistics. Provide a couple of examples of countries in stages 2, 3, and 4.

- Presentation of Malthusian Model.  
(Time: 10 minutes) (Skills: n/a) (Objective 3) (Related Resources: Demographics Lesson 3 PowerPoint and Kunzig reading).

Present the Malthusian Model. Unlike the DTM, which is optimistic by indicating a transition to stable population (zero population growth in the the final stage (4), resulting from improved socioeconomic characteristics), the Malthusian Model (MM) is more pessimistic and predicts a state of crisis---overpopulation crisis—as the result of uncontrolled population growth.



Simply there are two ‘variables’ i.e., factors that are changing: population and food. While both are growing, agricultural production grows slower—arithmetically. When population grows rapidly---geometrically, the result is that number of people exceeds carrying capacity. This results in a collapse/crisis, which is manifested in widespread hunger, famine, death (doom). These concepts are covered in the movie Dodging Doomsday. The debates on population growth are aptly captured in the movie, which could be recommended as extended (out of class work) student work.

- Synthesis Discussion.  
(Time: 15 minutes) (Skills: Holistic Thinking) (Objective 3) (Related Resources: Lesson 3 PowerPoint and Kunzig reading)

Engage the students in the class in a group discussion centered around the following topic/discussion question: Compare and contrast the DTM with the MM?

How would your opinion change if you lived in India, Greenland (or another country with a low population), or Japan?

- Discussion: Demographics and Sustainability. (Alternative to PowerPoint presentation)  
(Time: 25 minutes) (Skills: Holistic Thinking) (Objective 2) (Related Resource: Kunzig reading).
  - Articles on demographics and overpopulation often point to environmental problems with too many people on the planet. What are these environmental challenges? Does an increased population exacerbate them? Why or why not?
  - Industrialization leads to a stronger economy, but is often accompanied by environmental problems. Is it right to ask developing countries to implement costly measures to reduce the environmental impact when the developed world did not have to? What would you recommend?
  - What is the demographic transition model? Why is the population so high today, despite the lowering of the death rates, due to advances in science and health?
  - What does Malthus propose? Do you think this article agrees with Malthus’s basic premises? Why or why not? Do you agree? Why or why not?
  - Do you think governments should offer incentives for sterilization? What factors/biases impact your stance? What other low-cost solutions might be available in developed countries and/or developing countries?
- Discussion on Population Growth and Global Aging.  
(Time: 15 minutes) (Skills: Holistic Thinking) (Objective 3) (Related Resource: Wilson reading).



- In your own words, explain how the demographic transition model applies to the categorization of 20<sup>th</sup> century as the century of population growth and the 21<sup>st</sup> century as the century of aging?
  - What has been the impact of lack of understanding of mortality statistics and life expectancy?
  - Why does fertility decline exaggerate aging trends?
  - How can governments combat the adage “demography is destiny”?
- Reflection.  
(Time: 5 minutes) (Skills: Holistic Thinking) (Objective 3) (Related Resource: n/a).

How are the debt problems facing the U.S. and Europe connected to demographics?

### Resources

- 7 Billion, National Geographic Magazine. (2010, December 27) Retrieved from: [http://www.youtube.com/watch?v=sc4HxPxNrZ0&feature=player\\_embedded](http://www.youtube.com/watch?v=sc4HxPxNrZ0&feature=player_embedded)
- Demographics Lesson 3 PowerPoint. Retrieved from: <http://www.global-workforce.globalization101.org/wp-content/uploads/2012/03/Demographics-Lesson-3-PowerPoint.ppt>
- Kunzig, Robert. (2011 January). Population 7 Billion. In *National Geographic*. Retrieved from: <http://ngm.nationalgeographic.com/2011/01/seven-billion/kunzig-text/1>
- Wilson, Chris. (2010) The Century Ahead. In Robert Jackson (Ed.), *Annual Editions: Global Issues 2009/10* (25<sup>th</sup> ed). McGraw Hill

### Optional Resources

- Hein de Haas, “Migration and Development: A Theoretical Perspective,” University of Oxford International Migration Institute Working Papers: Paper 9 (2008)  
<http://www.imi.ox.ac.uk/pdfs/imi-working-papers/WP9%20Migration%20and%20development%20theory%20HdH.pdf>
- Martha Sharma. (n.d.). A contemporary look at a classic model. Retrieved from: [http://apcentral.collegeboard.com/apc/members/courses/teachers\\_corner/50105.html](http://apcentral.collegeboard.com/apc/members/courses/teachers_corner/50105.html)  
[Note important external link to articles on the Demographic Transition model]
- U.S. Bureau of the Census. (n.d.) Retrieved from: [www.census.gov](http://www.census.gov)
- Yearbook of Immigration Statistics. (n.d.) Department of Homeland Security. Retrieved from: <http://www.dhs.gov/files/statistics/publications/yearbook.shtm>



## ***Lesson 4: Rethinking “Overpopulation”***

### **Overview**

This lesson plan examines a variety of viewpoints on the issue of overpopulation. Students apply theoretical knowledge of population growth theories to establish the extent to which the theoretical propositions in the theory match the reality of particular population groups. In addition, students examine competing claims concerning the related issue of world hunger.

### **Relevant Learning Objectives**

3. Discuss the contending arguments about overpopulation threats

### **Procedure**

#### Possible Classroom Activities

- Introduction.  
(Time: 5 minutes) (Skills: Holistic Thinking) (Objective 3) (Related Resources: Food: there’s lots of it video)

Some believe that overpopulation does not cause hunger. Watch film and debate the premise that politics, violence, and other factors that impede access. How does this video compare to the National Geographic videos that support the premise that overpopulation causes many of the world’s sustainability problems.

- Debunking Overpopulation Myths.  
(Time: 15 minutes) (Skills: Holistic Thinking) (Objective 3) (Related Resources: *With These Hands: How Women Feed Africa*, *Business of Hunger* and *New Internationalist*, Longman and *Prospect* reading)

Ask the students to respond to the statements in the cartoons provided in the *New Internationalist* reading. This assigned discussion allows students to debunk common myths about overpopulation. The *Prospect* reading or the Longman could be used in addition to, or instead of, *The Internationalist* reading.

- Dodging Doomsday.  
(Time: 5-60 minutes ) (Skills: n/a) (Objective 3) (Related Resources: *Dodging Doomsday*)

Select segments from *Dodging Doomsday* to show in class. The full-length video can be assigned as homework for students.



In Dodging Doomsday, the segment on Mauritius as a “success story” that has escaped the ‘over population’ trap is a refreshing example that can be used to counter the overgeneralization that all African countries are rapidly growing.

- Solyent Green.  
(Time: 15- 97 minutes) (Skills: Holistic Thinking) (Objective 3) (Related Resource: Solyent Green)

Watch and discuss the science fiction movie Solyent Green. Clips are also available on YouTube. (Intro: <http://www.youtube.com/watch?v=StoSRQOvMyI&feature=related>)

- Intro: what is the history of the world from the 1950s or so onward depicting in the opening montage? Is this realistic?
  - This movie was released in 1973 and projects an image of NYC in 2022. How far off is the projection? What happened to bring the world to this overpopulated state?
  - What is the take-home message of the film?
  - In the context of the movie, does Solyent Green provide a logical answer to the world’s problems? What other possible solutions could have been used to deal with overpopulation and population growth?
- Reflection.  
(Time: 5 minutes ) (Skills: n/a) (Objective 3) (Related Resources: n/a)

Is the world over- or under-populated and why? Note students can answer both, they just need to provide their reason.

### Resources

- Dodging Doomsday. (1992). BBC Productions. (51 minutes)
- Fleischer, Richard (Producer). (1973). *Solyent Green*. Available on Netflix.
- Food: there’s lots of it (2010, May 3). Retrieved from: <http://www.youtube.com/watch?v=OXrN9HhnCcM>
- Longman, Phillip ( 2011 September/October). The World Will Be More Crowded –With Old People. In *Foreign Policy*. Retrieved from: [http://www.foreignpolicy.com/articles/2011/08/15/the\\_world\\_will\\_be\\_more\\_crowded\\_with\\_old\\_people?page=0,0](http://www.foreignpolicy.com/articles/2011/08/15/the_world_will_be_more_crowded_with_old_people?page=0,0)
- Overpopulation: The Making of a Myth (2009, July 23). Retrieved from: <http://www.youtube.com/watch?v=vZVOU5bfHrM>
- Pearce, Fred. (2010, March 8). The Myth of Overpopulation. In *Prospect*. Retrieved from: <http://www.prospectmagazine.co.uk/2010/03/the-overpopulation-myth/>
- Three Myths About World Hunger. (September 1985). *New Internationalist*, 151. Retrieved from: <http://www.newint.org/issue151/myths.htm>



- With these Hands. (1989). (33 minutes) and Business of Hunger. (1986). (60 min) [These films are 'half-hour' abbreviated versions of 1-hour films originally titled "Hunger for Profit" and "Man-Made Famine" respectively.]



## ***Lesson 5: International Migration Patterns: Why do People Move?***

### **Overview**

This is the first of two lessons devoted to movement patterns of the world population. The lesson emphasis is on global/international scale. The issues/ study questions provided center on where, when, who, why, and so what, thereby highlighting the places, eras, population profile, reasons, and implications for major world migration flows.

### **Relevant Learning Objectives**

2. Explain temporal and spatial trends in world population patterns

### **Procedure**

#### Possible Classroom Activities

- Introduction.  
(Time: 10 minutes) (Skills: n/a) (Objective 2) (Related Resources: Castels and Miller book)

The quote below from Castels and Miller, 1996, can be used as an opener/hook for the day's lesson. Ask students to read it and "discuss"/"reflect" on it

"International migration is a constant, not an aberration, in human history. Population movements have always accompanied demographic growth, technological change, political conflict, and warfare. Over the last five centuries mass migrations have played a major role in colonialism, industrialization, the emergence of nation-states and the development of the capitalist world market. However, international migration has never been as pervasive, or as socioeconomically and politically significant, as it is today. Never before have statesmen accorded such priority to migration concerns. Never before has international migration seemed so pertinent to national security and so connected to conflict and disorder on a global scale."

- Lecture and Discussion on Migration and Global Population Movements.  
(Time: 45 minutes) (Skills: Holistic Thinking) (Objective 2) (Related Resources: Demographics-Lesson5-Migration PowerPoint, Rubenstein textbook, Migration reading)

Examine four key issues:  
Why do people migrate?  
Where do migrants locate?  
What are obstacles facing migrants?



Why do people migrate within a country?

Tentative possible discussion questions with a US-based student focus are:

- Why do countries have rules governing the number/type/demographics/etc. of immigrants?
  - Why is migration controversial?
  - Why is the US immigration debate not only about foreign policy but also about race, ethnicity, class as well as local politics (e.g., case of Arizona)?
  - Because California receives more immigrants than any other state, it spearheads the country in the formulation of immigration policy. How would you advise the state of California on maintaining demographic diversity without making immigrants a public charge?
  - What role does culture and technology (and other globalization factors) play in migration – in the U.S./Europe/developed countries?
  - How does your view of migration change if you lived in a developed vs. a developing country?
  - Should there be an international organization to control migration? What would be the strengths of this approach vs. the current approach (mainly left to individual states, with some key issues covered by international organizations, such as trafficking)
- Reflection.  
(Time: 5 minutes) (Skills: n/a) (Objective 2) (Related Resource: n/a)

What is the relationship between demographics and migration? Which is easier to control/manipulate and why?

### Resources

- Castles, S., and Miller, M. (1993). *The Age of Migration: International Population Movements in the Modern World* (pp. 283). New York: Guilford Press.
- Demographics Lesson 5 PowerPoint. Retrieved from: <http://www.global-workforce.globalization101.org/wp-content/uploads/2012/03/Demographics-Lesson-5-Powerpoint.ppt>
- Migration (n.d.). Retrieved from: <http://www.globalization101.org/category/issues-in-depth/migration/>
- Rubenstein, J.M. (1995-2010). Chapter 3 Migration. In *Human Geography*. Pearson Prentice Hall. Retrieved from: [http://wps.prenhall.com/esm\\_rubenstein\\_humangeo\\_8/20/5323/1362867.cw/index.html](http://wps.prenhall.com/esm_rubenstein_humangeo_8/20/5323/1362867.cw/index.html)

### Optional Resources



- Biggest Misconception About Migration. (2010, October 4). YouTube. Retrieved from: <http://www.youtube.com/watch?v=WrdIHS3pqck> (2 min 34 sec)
- Changing Faces Changing Shapes. (n.d). Retrieved from: <http://www.geographyteachingtoday.org.uk/ks3-resources/resource/changing-faces-shaping-places/> [For a non US perspective (UK perspective) for teaching migration]
- Education Destinations. (2010, February 18). Globalization101.org. Retrieved from: <http://www.globalization101.org/education-destinations-the-globalization-of-higher-education-2/>
- Financial Crisis and Xenophobia. (2009, October 13). Globalization101.org. Retrieved from: <http://www.globalization101.org/the-financial-crisis-and-xenophobia-2/>
- Human Geography PowerPoint Lectures. (n.d). Retrieved from: [http://www.glendale.edu/geo/reed/cultural/cultural\\_lectures.htm](http://www.glendale.edu/geo/reed/cultural/cultural_lectures.htm)
- Isbister, John. (1996). *The Immigration Debate: Remaking America*. Kumarian Press.
- Migrant Policy Recommendations. (2010, August 18). Youtube. Retrieved from: <http://www.youtube.com/watch?v=t5UB9wjDmXI>
- World Migration Report 2010. (2010). Retrieved from: [http://publications.iom.int/bookstore/free/WMR\\_2010\\_ENGLISH.pdf](http://publications.iom.int/bookstore/free/WMR_2010_ENGLISH.pdf) [look at pages 115 and 149-153 for charts; 115-126 for reasons why people are migrating]



## ***Lesson 6: Family Migration Histories***

### **Overview**

This 50-minute class period is designed as a chance for students to apply terms and information relevant in the study of global migration to individual families.

### **Relevant Learning Objectives**

4. Apply demographic terms and concepts to the migration history of an individual family

### **Procedure**

#### **Pre-Classroom Assignment**

- Family History Assignment.  
(Skills: Holistic Thinking) (Objectives 4) (Related Resources: n/a)

Students complete the Family History Assignment before class (ample time must be given, especially for those pursuing personal family history interviews).

For this assignment, students will develop a family history to discuss in class. Through this project, they will analyze global events and demographic phenomena shaping the family members' lives.

References to "your family history" imply two different meanings of "your," related to the options from which students may choose:

- Option 1: For a personal family history, the student investigates her/his family past by interviewing family members and collecting available genealogical information from written and oral sources. Students may not be able to find all the information below for all the people they trace but should fill in as much possible.
- Option 2: For a fictionalized family history, the student creates characters whose lives represent experiences actually lived by people in the past. Characters may be wholly or partly fictional, and students develop believable details of their lives. Students might use some actual family members as springboards, though their research would involve other people's experiences (for example, reading oral and social histories).

1) Create a family tree going back at least to 1900, and further if possible. For at least three individuals from different generations (spanning the 20<sup>th</sup> century), provide key information which you will compare and analyze later: Birth/Death, Number of children, Race/Ethnicity, Educational level reached, occupation; Migration patterns (where they were born, where they moved to and lived)



- 2) Explain how your family experiences are part of world events
  - Effects of war and other conflicts on the family members, including military service, loss of life, migration, civil/human rights concerns, etc. Examples: World War I, World War II, Vietnam, First Gulf War, War in Iraq, Afghanistan, internal civil conflicts, government repression
  - Effects of economic downturns on your family in terms of jobs, location, educational opportunities. Examples: Great Depression, 1970s or more recent economic slump's effects, debt crises
  - Effects of larger technological/economic shifts on your family's jobs—like changes in farming, industrialization, spread of higher education, mass consumer society, outsourcing, and other effects. What occupational changes were experienced by both individuals, and for the family as a whole?
  - Have any of these experiences shaped the migrations of family members—from outside the USA or internal migration within? Explain.
  
- 3) Discuss your family's migration history; elements may pre-date the 20<sup>th</sup> century.
  - When did members of your family come to the United States and why? Discuss the conditions these individuals faced in the sending countries and in the USA
  - Explain the different reasons—local, national, personal—that brought different branches of the family to the USA.
  - What about internal migration? How and why have family members moved around the country?
  - How did personal, economic, educational, political, and other factors shape these migrations? How were these factors part of larger trends in history—and diverse experiences in both the sending countries and the USA?

#### Possible Classroom Activities

- Hook/Introduction.  
(Time: 5-10 min.) (Objective 4) (Skills: Holistic Thinking)(Resources: n/a)

Choose an individual from your family history who migrated at some point in her/his life. Revisiting the lecture from last class, explain how well this individual fits broader patterns for at least two of these issues:

- Why people migrate
- Where migrants locate
- Obstacles facing migrants
- Why people migrate within a country

Share with 1-2 neighbors.



- Individual Research and Preparation for Discussion.  
(Time: 20-25 min. for research, variable time for discussion) (Skills: Holistic Thinking and Technology Skills) (Objective 4) (Related Resources: Immigration Data Hub)

Utilize relevant resources from the MPI “Immigration data hub” to answer this question: Explain how historic and recent migration trends are represented (or not) by your family history.

\*Note: This step could also be assigned as part of Family History Assignment done in preparation for class.

- Discussion.  
(Time: 15-25 minutes) (Skills: Holistic Thinking) (Objective 4) (Related Resources: Migration Policy Institute “Immigration Data Hub.”)

In small groups and/or as a class, compare your findings from the MPI research and analysis above.

- Discussion.  
(Time: 15-25 minutes) (Skills: Holistic Thinking) (Objective 4) (Related Resources: Martha Sharma. (n.d.). A contemporary look at a classic model. Retrieved from [http://apcentral.collegeboard.com/apc/members/courses/teachers\\_corner/50105.html](http://apcentral.collegeboard.com/apc/members/courses/teachers_corner/50105.html))

In small groups and/or as a class, compare and analyze your family histories with respect to the following:

- What were the migrations (international and internal) made by family members, and what factors shaped these?
- What are the trends in your family history’s figures for family size, death and birth statistics and professional/education status (Part 1 of the assignment)
- How does your family history compare to traditional demographic transition theory and/or critiques of the theory? For example, does it fit the DT model’s Stage 4?

- Conclusion  
(Time: 5-10 min.) (Objective 4) (Skills: Holistic Thinking, Cross-cultural Communication) (Related Resources: n/a)

Write a brief response to the following questions. If time, share with 1-2 neighbors.

1) How well do the family histories analyzed in our class correspond with the following quote?

Among the main reasons explaining why it is so difficult to generalize about the causes and consequences of migration are the diversity and complexity of the phenomenon as well as the difficulty of separating migration from other socio-



economic and political processes. Moreover, it is often difficult to combine macro- and micro-level theories of migration. This has led scholars to conclude that there will probably never be a general theory on migration. -- Hein de Haas, 2008

2) What difference would it make if our class sampling was more globally representative, rather than primarily US-focused?

### Resources

- “Immigration Data Hub.” (n.d.). Migration Policy Institute. Retrieved from: <http://www.migrationinformation.org/datahub/> [the link provides choices on several data sets (the US data is good for Lesson 6)]
- Martha Sharma. (n.d.). A contemporary look at a classic model. Retrieved from: [http://apcentral.collegeboard.com/apc/members/courses/teachers\\_corner/50105.html](http://apcentral.collegeboard.com/apc/members/courses/teachers_corner/50105.html) [Note important external link to articles on the Demographic Transition model]

### Optional Resources

- Census Bureau. (n.d.). Retrieved from: <http://www.census.gov/population/www/cen2000/migration/index.html>
- Maps of the Foreign Born in the US. (n.d.). Retrieved from: <http://www.migrationinformation.org/datahub/maps.cfm> [e.g. states with fastest growing immigrant populations]
- People on the Move. (n.d.). Population Reference Bureau. Retrieved from: <http://www.prb.org/Educators/LessonPlans/2005/PeopleontheMove.aspx>



## Appendices

### *Appendix A Demographics Country Project*

You are members of a government committee assigned to write a report to the UN Commission on Population. Your job is to represent your country in its best light, while not ignoring challenges that you could get help from the UN to fix (i.e. you may need money to address certain issues).

You need to know first of all what type of government your country is run by: One is a dictatorship (China), while the others are full democracies or partial democracies. Only China will want to fully hide the negative aspects of their demographic situation, so that group will want to hand in a censored and an uncensored version. Most governments, however, do not like to air all their dirty laundry to the UN, so you need to try to think like them, rather than like yourselves for this project: what would they emphasize? What would they want to downplay? Each country will have its own focus though there are similarities. Some have more pressing environmental issues, others more pressing food shortages (and some both). Some have political tensions (or just played them out – Egypt), while others are more concerned with their economic futures.

Using statistical information, analysis and projections you find in the online sources supplied to you by the UN answer the following questions in as much detail/depth as you think necessary to make your case. The general resources have lots of information and may be enough to find all the necessary data and analysis. The extra sources for each individual country provide more analysis from newspapers, government websites (to give you the country's take), academic papers and reports. You may use graphs, pictures and videos to supplement your report.

At the end of the report, list all the sources you used (reports, websites, etc). You may use quotes in your report (and footnotes or parenthetical citations) but be careful of not plagiarizing (using the words of the author without putting them in quotes and footnoting/citing them).

If you work separately, make sure you all come back together at the end to make sure your document is coherent: Are you positing a negative view of the demography in your country and its future, positive, moderate, one in need of intervention, etc?

#### 1) TOTAL POPULATION

What is your current population; its rank in the world and its density (how many people per sq. km). Please insert here your population pyramid and explain what it shows about your current population's age distribution (the implications of the pyramid will be further analyzed in questions 4-8).

#### 2) POPULATION HISTORY

What events and large forces in history have effected your population? Trace as best you can the fluctuations in your population and the steps in the FOUR STAGES of the



DEMOGRAPHIC TRANSITION MODEL. Please tell us if you feel this Model does not work for your country and why.

3) STAGE

What stage of the DEMOGRAPHIC TRANSITION MODEL are you currently in and why? When do you think you will enter the next stage and why?

4) BIRTH RATE

Expand on your analysis of the population pyramid from question 1, to further discuss the role of birth rate considering the following factors where applicable: Family size, use of contraceptives, family planning, government intervention, education of women, tradition/religious factors (such as value of women, religious bans on contraception, preference for boys over girls), age of marriage and marriage rate (how many people marry), maternal death rates (how many mothers die in childbirth), infanticide, child mortality rate, etc. Do not just give the statistics on each factor, but analyze its role in the demographic situation. What challenges does your country face when it comes to Birth Rates?

5) DEATH RATE

Expand your analysis of the population pyramid from question 1, to further discuss the role of death rate considering the following factors where applicable: war, disease (epidemic and endemic as well as to who is most targeted), average life-span (is it different for men and women?), tradition/religious factors (such as reluctance to adopt certain medical practices, attitudes towards disease), medical advances and access to. Do not just give the statistics on each factor, but analyze its role in the demographic situation. What challenges does your country face when it comes to Death Rates?

6) POLITICAL/ECONOMIC CHALLENGES

What political challenges does your country face due to your population? (ie Youth Bulge or Aging population are challenges to the political system – either through revolts or through stagnation/conservative voting population) Does your government intervene in the population and its growth in any way and for what means? (Population policies, laws, bans on contraception, limits to use of technology like ultrasounds, one child policy, campaigns to educate women/promote contraception) What economic challenges? (ie Youth Bulge or Aging population also cause economic concerns – too many young people with no jobs – unemployment, or too many old people retiring, puts strains on those who work and on safety net/social security system).

7) MIGRATION - In and out (Immigration/Emigration)

How is your population effected by migration patterns? What are the levels of immigration (people coming in)? Where are the immigrants coming from? How does this immigrant population affect your population pyramid, your state, your economy



and/or your culture? What are the levels of emigration (people going out)? Where are the emigrants going to? What push/pull factors are present in this flow outwards.<sup>1</sup> How does this emigration affect your population pyramid, your economy (by sending money home? By taking valuable skills with them?) and/or your political system.

8) **AGRICULTURE/ENVIRONMENT**

Does your country grow most of its food or import most? Does food or lack of it effect the population directly? (i.e. famine, malnutrition, etc.) What challenges does your country have when it comes to Environmental constraints? (Do you have enough fertile land, issues of sustainable practices, pollution, global warming, drought or flooding, etc.). Do you have any plans for addressing Environmental challenges?

9) **FUTURE CHALLENGES**

What future challenges does your country face? What issues would you like help from the UN in improving? (health care, family planning, education, etc.)

10) **COMPARISONS**

Please compare your country's demographic situation to the other countries in the UN Commission Survey (i.e. WIKI spaces groups). Which country resembles yours the most? Which the least? What can you learn from these other countries? (The two you have chosen as most and least similar to you)

## **Assessments**

### **Essays**

#### **Sample Question(s):**

#### **Population Control Policies**

Based on what you've read about the trends in world population growth, the distribution of food, and the ability of parents around the world to plan the number of children they will have, what course of action do you believe the United States should take to influence world population growth trends. Be sure to support your position with readings and data. You may use outside readings and personal values to support your position but you must also refer to the course readings. In particular, if you disagree with them, be sure to acknowledge their evidence and discuss why you believe it is not relevant.

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<sup>1</sup> PUSH factors: people are pushed to leave the country for reasons of war, lack of economic opportunities, political/religious persecution, environmental disasters, etc. PULL factors: better standard of living, job opportunities, and religious/political freedoms.



### **Multiple Population Theories**

Explain the demographic processes that led to rapid population growth and those that are leading to aging populations. What challenges does each population process raise? Which of the challenges are the most pressing population concerns for the future and why? How is one's perspective on population growth and aging influenced by the relative wealth of their country? Support your answer with concrete examples.

### **Population Growth: Theory**

Discuss the central ideas and conclusions of the Malthusian Model and the Demographic Transition Model of Population Change. What content in course materials inform your opinion about the validity of either or both of the theories.

### **Realities and Myths: Examining the Evidence**

The food crisis in the 'third world' is "man-made", it is not because of overpopulation, and workable solutions exist.

In an attempt to refute the stated conclusions of the Malthusian model and with specific reference to a range of information from class readings and visuals respond to the three statements in the cartoons (see New Internationalist Cartoons in:

<http://www.newint.org/issue151/myths.htm>

(The 3 myths/statements are: 1) there just is not enough food to support the world's population; 2) It's the weather that causes famine and no one can do anything about that; 3) science and better technology is the answer.)

### **Quiz**

Explain the demographic processes that led to rapid population growth and those that are leading to aging populations. What challenges does each population process raise? What are the most pressing population concerns for the future and why? Does one's perspective vary if one lives in a wealthy or poor country? Explain your answer and give concrete examples.

### **Review Questions for the Module**

- 1) Where is the majority of the human population located in regional terms? What are the three largest countries today?
- 2) During what period of human history to the population begin to grow exponentially? Why?
- 3) Where do demographers expect human population to level off?
- 4) How are the crude birth rate and crude death rate calculated? How is the rate of natural increase calculated?
- 5) How long will it take for a population to double in size if the rate of natural increase stays steady at 2.0?
- 6) What does the total fertility rate measure? What is a high number and what is a low number? What rate is considered replacement rate?



- 7) What was the basic population problem identified by Malthus?
- 8) What did Ehrlich recommend people do to avoid the future described in the population bomb?
- 9) What are some lessons from the Chinese experience of population control?



## Notes to the Piloter

### Background Readings for the Instructor

Rubenstein, J.M. (2009). Chapter 2 Population. In *Human Geography*. Pearson Prentice Hall

Rubenstein, J.M. (2009). Chapter 3 Migration. In *Human Geography*. Pearson Prentice Hall

McFalls, Joseph A. (2007). *Population: A Lively Introduction* (5<sup>th</sup> Ed). Population Reference Bureau.

Migration. (n.d). Globalization101. Retrieved from:  
<http://www.globalization101.org/category/issues-in-depth/migration/>

### Additional Resources

Supplementary Readings on Migration and Population Redistribution:

(Global Migration and Migration Decision-Making)

DeParle, Jason. (2007, December 27). Border Crossings: A Global Trek to Poor Nations from Poorer Ones. *New York Times*.

DeParle, Jason. (2007, June 24). Border Crossings: In a World on the Move, a Tiny Land Strains to Cope. *New York Times*.

DeParle, Jason, (2007, August 20). Border Crossings: Rising Breed of Migrant: Skilled and Welcome. *New York Times*

Boyd, Monica. (2003). Women and Migration: Incorporating Gender into International Migration Theory. Migration Policy Institute.

---Books:

Bailey, Adrian. (2000) *Making Population Geography*. London: Hodder Arnold. 2005  
Willis, Katie and Brenda Yeoh, eds. *Gender and Migration*. Northampton, MA: Edward Elgar,

---For Lesson Plans/Teacher Training Manuals on Population-Related Topics see National Geographic Expeditions website as well as PRB sites such as:  
<http://www.prb.org/Educators/LessonPlans/2005/MakingPopulationRealNewLessonPlansandClassroomActivities.aspx>  
[http://www.tltguide.ccsd.k12.co.us/instructional\\_tools/lessons/poppyramids/pyramidunit.htm](http://www.tltguide.ccsd.k12.co.us/instructional_tools/lessons/poppyramids/pyramidunit.htm)

