

**China's Demographics: Population Trends and Challenges**  
**Timothy Evans**  
**Fulbright-Hays Seminar to China, 2013**

Rationale:

We all know that China is the most populous country in the world and that much of its recent economic growth can be attributed to its vast labor pool. China's population, however, will experience significant changes over the next forty years that will have profound impacts on the economic and social fabric of China. The changes are largely attributable to the effects of the One-Child Policy as well as the effects of economic development. It is important for students to understand the ways in which these demographic trends will potentially challenge the long-term economic and social health of the most populous country in the world. In studying these trends students will gain a deeper understanding of the relationships between a country's population and its economic and social health.

Intended Audience:

This case study is intended to be taught in high school Advanced Placement Human Geography classes. While the lessons can be adapted to satisfy curricular requirements of most high school social studies courses, they are most closely aligned to the units on Population, Migration, and Economic Development.

Common Core Standards:

CCSS.ELA-Literacy.RH.11-12.1: Cite specific textual evidence to support analysis of primary and secondary sources, connecting insights gained from specific details to an understanding of the text as a whole.

CCSS.ELA-Literacy.RH.11-12.7: Integrate and evaluate multiple sources of information presented in diverse formats and media (e.g., visually, quantitatively, as well as in words) in order to address a question or solve a problem.

CCSS.ELA-Literacy.RH.11-12.9: Integrate information from diverse sources, both primary and secondary, into a coherent understanding of an idea or event, noting discrepancies among sources.

New York State Standards:

Standard 2 – World History

Students will use a variety of intellectual skills to demonstrate their understanding of major ideas, eras, themes, developments, and turning points in world history and examine the broad sweep of history from a variety of perspectives

### Standard 3 – Geography

Students will use a variety of intellectual skills to demonstrate their understanding of the geography of the interdependent world in which we live – local, national, and global – including the distribution of people, places, and environments over the Earth’s surface.

#### Objectives:

Upon completion of these lessons students will be able to:

- 1) Graph China’s demographic transition since 1950
- 2) Determine the relationship between the One-Child Policy and China’s demographic transition
- 3) Compare and contrast China’s current and future population pyramids
- 4) Evaluate the potential strengths and weaknesses of China’s future population as it relates to economic and social health
- 5) Map and explain details surrounding the geographic qualities of China’s internal economic inequality

#### Process:

These lessons are designed to comprise a mini-unit case study about China’s demographic trends. They can, however, be presented individually as supplemental material for work related to the One-Child Policy, population pyramids, and economic inequality. Each of the three lessons has four components that can be utilized according to teacher discretion: 1) PowerPoint presentation, 2) application activity, 3) relevant reading, and 4) enrichment video.

#### Lesson 1: The Effects of the One-Child Policy

- A) PowerPoint: The One-Child Policy
- B) Application: China’s Demographic Transition
- C) Reading: *Why China’s Gender Gap Persists*
- D) Video: *China’s Lost Girls*

#### Lesson 2: Demographic Challenges: Sex and Dependency Ratios

- A) PowerPoint: China’s Population Pyramids
- B) Application: Contrast China’s Current and Future Population Pyramids
- C) Reading: *China’s Population Destiny*
- D) Video: *China From the Inside*

#### Lesson 3: Two China’s: Rural and Urban Divide

- A) PowerPoint: Rural and Urban China

- B) Application: Mapping the Economic Landscape
- C) Reading: *A Country On the Move: China Urbanizes*
- D) Video: *Young & Restless in China*

## Works Cited

- Wang, Feng (2010, September 01). "China's Population Destiny: The Looming Crisis." *Current History*, (728), 244, Retrieved from <http://elibrary.bigchalk.com>
- Hvistendahl, Mara (2010, September 01). "Why China's Gender Gap Persists." *Current History*, (728), 248, Retrieved from <http://elibrary.bigchalk.com>
- Lewis, J. (Producer) (2006). *China from the Inside* [DVD].
- Ling, L. (Performer) (2005). *National Geographic: China's Lost Girls* [Web]. Retrieved from [http://movies.netflix.com/WiMovie/70020565?strkid=1511071313\\_0\\_0&trkid=222336&movieid=70020565](http://movies.netflix.com/WiMovie/70020565?strkid=1511071313_0_0&trkid=222336&movieid=70020565)
- Merkel-Hess, K., Wasserstrom, J. (2009, April 01). "A Country on the Move: China Urbanizes." *Current History*, (717), 167, Retrieved from <http://elibrary.bigchalk.com>
- Williams, S. (Producer) (2008). *Young & Restless in China* [Web]. Retrieved from <http://www.pbs.org/wgbh/pages/frontline/youngchina/view/>

<b>Unit:</b> China: A Case Study
<b>Title:</b> The One Child Policy
<b>Objective:</b> Students will learn how the One-Child Policy will have both short-term and long-term effects on China's demographics
<b>Common Core Standard:</b> <a href="#">CCSS.ELA-Literacy.RH.9-10.7</a> Integrate quantitative or technical analysis (e.g., charts, research data) with qualitative analysis in print or digital text.
<b>Materials:</b> PPT: One-Child Policy; Research Guide to One-Child Policy; computers on which to conduct research
<b>Procedure: Requires two class periods</b> Warm Up: Why would governments develop policies to either encourage or discourage procreation (5-10 min)  Mini-Lesson: Causes and effects of the One-Child Policy (15 min)  Independent Work: Research on gapminder.org, creating a demographic model of China, and analysis questions (60 min)  Share Out of findings (15 min)
<b>Questioning:</b> 1) Why do governments, in some cases, discourage procreation?  2) How will the One-Child Policy help solve the problem of overpopulation but create problems associated with dependency ratios?  3) Has the one-child policy worked? Use evidence to support your answer.  4) In what ways has the One-Child Policy propelled China through the stages of the demographic transition model?  5) Why should Chinese officials be concerned about the heavily male-skewed sex ratio that is taking hold in China?
<b>Assessment:</b> warm up (formative), work period (formative), share out questions (formative)
<b>Unit Goals:</b> Students will learn how demographics are used to understand the conditions within countries as well as ways in which demographics can change over time. This case study is intended to supplement the general curriculum with specific analysis of China's demographic challenges.

Mr. Evans  
A.P. Human Geography

### The One-Child-Policy and China's Demographic Transition

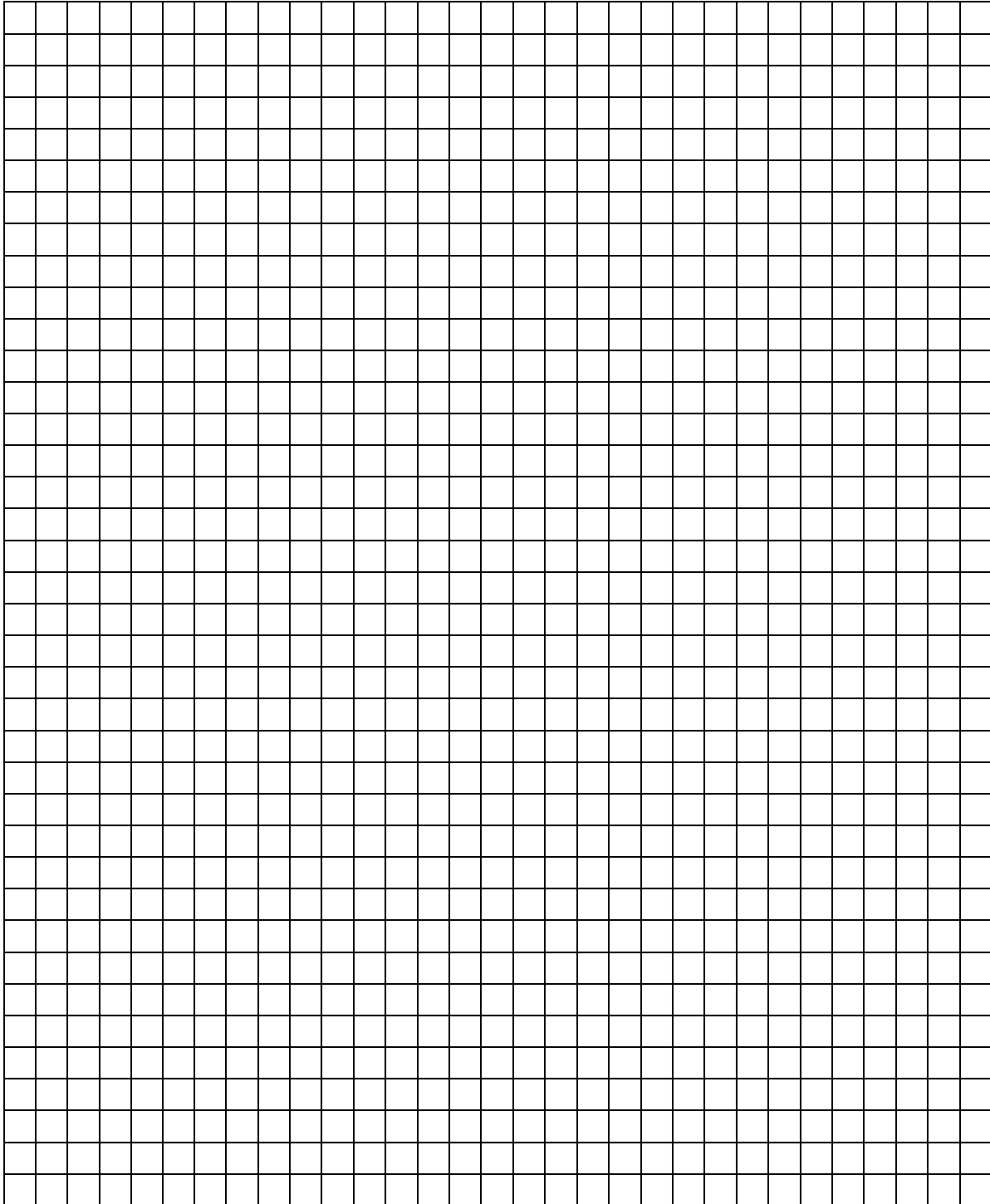
**Background:** Your challenge is to determine the ways in which the One-Child-Policy has impacted the demographics of China. This assignment has three steps. First, use [www.gapminder.org](http://www.gapminder.org) to gather historical data related to China's birth and death rates. The specific data can be found under the "population" tab. Please record the data in the chart below. Your second task is to take the data and create a graph that visually illustrates the evolution of China's birth rates and death rates over time. Finally, use your work and knowledge of the demographic transition model to answer the questions below.

#### Step One: Historical Birth and Death Rates

Year	Birth Rate (per 1000)	Death Rate (per 1000)
1953		
1958		
1963		
1968		
1973		
1978		
1983		
1988		
1993		
1998		
2003		
2008		
2012		

Step 2: Graph China's demographic transition.

Use the data you collected above to create a line graph that illustrates both China's birth and death rates over time. Please use different color to graph each statistic and create a key that clearly identifies each.



### Step 3: Data Analysis and Conclusions

Please use the data, graph, and your knowledge of demographics to answer the following questions in complete sentences.

1) Describe the general trends you see in both China's birth rate and death rate over time. In what way(s) do these trends follow or refute the principles of the demographic transition model?

2) In what year did China experience the highest rate of natural increase? Support your answer with specific data from the graph.

3) What trend do you notice in China's birth rate in the years prior to the implementation of the One-Child-Policy? What are at least two possible explanations that would explain this trend?

4) How has the birth rate changed in China under the One-Child-Policy?

5) In what stage of the demographic transition model is China? What do you predict will happen to China's birth and death rates as the country continues to develop?

6) Do you think the One-Child-Policy has been successful in achieving its goal? In constructing your answer please try to draw from multiple sources of information (i.e. the readings, movie clips, your notes, your data and graph).

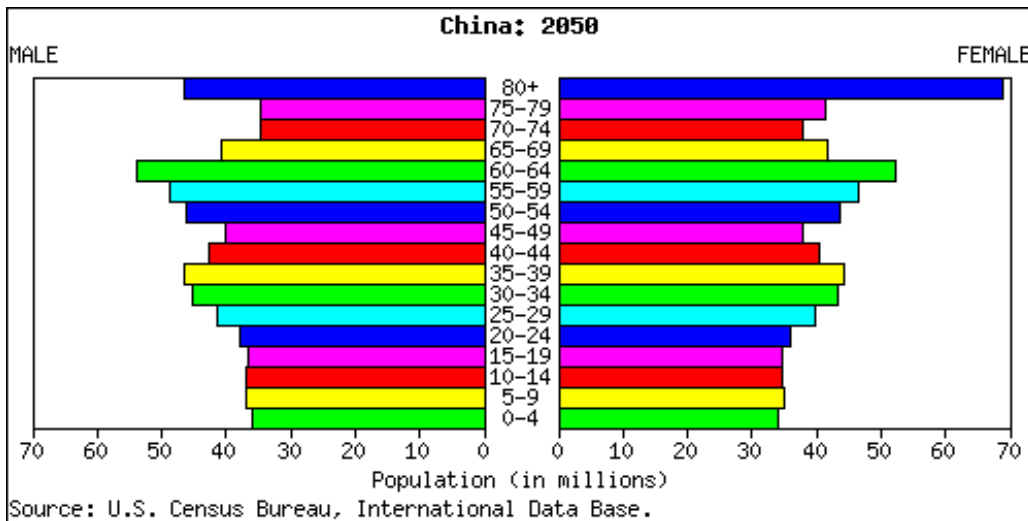
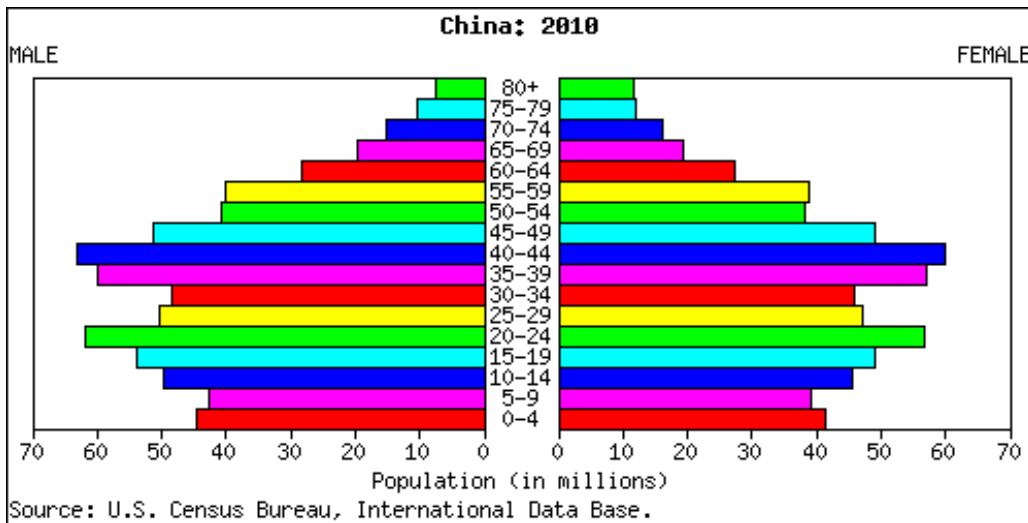


<b>Unit:</b> China: A Case Study
<b>Title:</b> Demographic Challenges
<b>Objective:</b> Students will learn how the One-Child Policy has skewed the countries sex and dependency ratios in problematic fashion.
<b>Common Core Standard:</b> <a href="#">CCSS.ELA-Literacy.RH.9-10.7</a> Integrate quantitative or technical analysis (e.g., charts, research data) with qualitative analysis in print or digital text.
<b>Materials:</b> PPT: China's Demographic Challenges; Activity: China's population pyramids
<b>Procedure: Requires one class period</b> Warm Up: What groups in society need the most government assistance? How do governments go about providing this help? (5-10 min)  Mini-Lesson: China's demographic challenges (15 min)  Independent Work: Analysis of China's current and future population pyramids (25 min)  Share Out of findings (15 min)
<b>Questioning:</b> 1) In what ways do the changes that occur between the 2010 and 2050 population pyramids support the general principles of the demographic transition model?  2) In what ways does China's 2010 population pyramid illustrate problems associated with an unbalanced sex ratio?  3) In what ways does China's 2050 population pyramid illustrate problems associated with a high dependency ratio?  4) Imagine if the Chinese government does away with the One-Child-Policy tomorrow. How might that change the eventual shape of China's 2050 population pyramid?  5) Why should Chinese officials be concerned about the heavily male-skewed sex ratio that is taking hold in China?
<b>Assessment:</b> warm up (formative), work period (formative), share out questions (formative)
<b>Unit Goals:</b> Students will learn how demographics are used to understand the conditions within countries as well as ways in which demographics can change over time. This case study is intended to supplement the general curriculum with specific analysis of China's demographic challenges.

Mr. Evans  
A.P. Human Geography

### Projecting China's Population

**Background:** In this phase of our case study on China you will be tasked with analyzing China's population pyramid. Below are population pyramids from China representing its current population as well as the prediction for its population forty years from now. Use your knowledge of China and demographics to answer the questions in complete sentences.



## Analysis and Findings

1) For each pyramid, what does the shape most closely resemble (e.g., a classic “pyramid” or “Christmas tree”, a barrel, a rectangle, an inverted “Christmas tree”)? What does the shape of a pyramid indicate about patterns of fertility and mortality? Use specific evidence from the graphs to support your answer.

2) In what ways does China’s 2010 population pyramid illustrate problems associated with an unbalanced sex ratio? Does this trend get better or worse over the next forty years? Please provide specific evidence from the graph to support your answer.

3) In what ways do the changes that occur between the 2010 and 2050 population pyramids support the general principles of the demographic transition model? Use specific evidence to support your answer.

4) In what ways does China’s 2050 population pyramid illustrate problems associated with a high dependency ratio? Please provide specific evidence from the graph to support your answer.

5) Imagine if the Chinese government does away with the One-Child-Policy tomorrow. How might that change the eventual shape of China’s 2050 population pyramid? Please provide as many details as possible to support your answer.

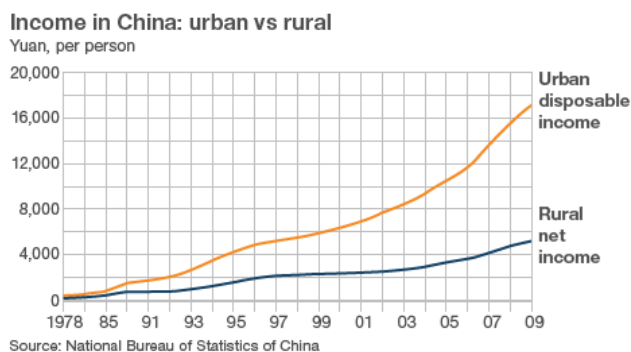
<b>Unit:</b> China: A Case Study
<b>Title:</b> Two Chinas: Urban and Rural Divide
<b>Objective:</b> Students will learn how recent economic development in China has occurred in ways that have created divides between the urban and rural populations.
<b>Common Core Standard:</b> <a href="#">CCSS.ELA-Literacy.RH.9-10.7</a> Integrate quantitative or technical analysis (e.g., charts, research data) with qualitative analysis in print or digital text.
<b>Materials:</b> PPT: Two Chinas; Activity: urban and rural China
<b>Procedure: Requires one class period</b> Warm Up: In what ways do geographic factors influence the pace and scale at which a country is able to develop? How do you suspect these factors play out in China? (5-10 min)  Mini-Lesson: Two Chinas: Rural and Urban (15 min)  Independent Work: Analysis of socio-economic features of rural and urban life in China (25 min)  Share Out of findings (15 min)
<b>Questioning:</b> 1) What actions can governments take to improve people's standards of living?  2) What geographical factors have helped accelerate and/or thwart China's development?  3) Why do you think the Chinese government enacted the <i>hukou</i> system to manage its population?  4) Imagine if the Chinese government does away with the <i>hukou</i> system. What do you think would be the changes to China's rural and urban populations?  5) In what ways will increased mechanization of the countryside affect life in rural China? How should the government and its people respond to such changes?
<b>Assessment:</b> warm up (formative), work period (formative), share out questions (formative)
<b>Unit Goals:</b> Students will learn how demographics are used to understand the conditions within countries as well as ways in which demographics can change over time. This case study is intended to supplement the general curriculum with specific analysis of China's demographic challenges.

### Urbanization and the Two Chinas

**Background:** Below are two charts that illustrate the present inequality between life in China's cities as compared to life in the countryside. Please use the information in the graphs to answer the questions below.

Urban v rural China						
	Urban households			Rural households		
	1990	2000	2009	1990	2000	2009
Colour TV	59	116.6	135.6	4.7	48.7	108.9
Cars	-	0.5	10.9	-	0.1	0.7
Motorcycles	1.9	18.8	22.4	0.9	21.9	56.6
Computers	-	9.7	65.7	-	0.5	7.5
Washing machines	78.4	90.5	96.0	9.1	28.6	53.1
Refrigerators	42.3	80.1	95.3	1.2	12.3	37.1
Air conditioners	0.34	30.8	106.8	-	1.3	12.2

(OWNERSHIP PER 100 HOUSEHOLDS) SOURCE: NATIONAL BUREAU OF STATISTICS OF CHINA



1) Use the graph to identify two specific ways that the standard of living in urban households is higher than that in rural households.

2) In what ways does the mode of transportation likely differ depending on where a family lives in China? Why is this important?

3) Rank these seven machines and appliances in order of importance with one being the most important for a quality standard of living and seven being the least important. Support your opinions as best you can.

4) There are about six yuan per one U.S. dollar. Do the conversion to understand how many dollars a rural dweller makes in a year. How do you think this compares to the average income in the U.S.?

5) “Disposable income” is the money left over after you have paid for necessities like food and housing. Net income is all the money one makes in a year. In what ways do these definitions alter your understanding of the graph?

6) Why do you think the Chinese government uses the *hukou* system to control the movement of Chinese citizens?