
AP[®] Human Geography

Sample Student Responses and Scoring Commentary

Set 2

Inside:

Free Response Question 1

- Scoring Guideline**
- Student Samples**
- Scoring Commentary**

Question 1: No Stimulus**7 points**

(A) Define the concept of total fertility rate.**1 point**

Accept one of the following:

- A1. Average number of children (e.g., babies, people) born to a female.

(B) Describe ONE difference between the total fertility rate and the rate of natural increase.**1 point**

Accept one of the following:

- B1. Total fertility rate is an estimate of the average number of children born to each female in her childbearing years, whereas the rate of natural increase is the annual growth rate of a population.
- B2. Total fertility rate is an estimate of the average number of children born to each female in her childbearing years, whereas the rate of natural increase equals the birth rate minus the death rate.
- B3. RNI measures population growth, whereas TFR measures fertility.
- B4. RNI includes deaths (e.g., mortality), whereas TFR measures fertility.

(Part A definition must be correct to score this point.)

(C) Explain ONE way the total fertility rate changes as a country shifts from an agricultural economy to a manufacturing-based economy.**1 point**

Accept one of the following:

- C1. The TFR drops when women enter the labor force outside the home (and become independent or enter the manufacturing sector).
 - C2. The TFR drops when families no longer need large families for farm labor.
 - C3. The TFR drops when gender equity increases as families move to cities and women gain access to better healthcare.
 - C4. The TFR drops when cost of living (e.g., food, rent, space) goes up for families who move to cities, so it becomes more expensive to raise children.
 - C5. The TFR drops when families move to cities where birth control is more readily available.
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- (D)** Explain how access to education for women in less developed countries is likely to affect the total fertility rate. **1 point**

Accept one of the following:

- D1. The total fertility rate is likely to decrease with increased access to education for women because additional economic and career options mean they may choose not to have children.
- D2. The total fertility rate is likely to decrease with increased access to education for women because of increased age of first pregnancy.
- D3. The total fertility rate is likely to decrease with increased access to education for women because of increased marriage age.
- D4. The total fertility rate is likely to decrease with increased access to education for women because of decreased teen pregnancy.
- D5. The total fertility rate is likely to decrease with increased access to education for women because of increased access to information on reproduction and family planning options.
- D6. The total fertility rate is likely to decrease with increased access to education for women because of increased gender equity.

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- (E)** Explain the degree to which access to specialized women’s health care (i.e., gynecologic or obstetric care) in more developed countries is likely to affect a country’s total fertility rate. **1 point**

Statement or indication of a moderate to high degree

AND

Accept one of the following:

- E1. TFR is likely to decrease because women have increasing access to information on personal reproductive health.
- E2. TFR is likely to decrease because women have increasing access to birth control.
- E3. TFR is likely to decrease because women have increasing access to surgical sterilization.
- E4. TFR is likely to decrease because women have ability to terminate pregnancies for personal or medical reasons.

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- (F)** Explain ONE economic reason why governments enact pronatalist policies. **1 point**

Accept one of the following:

- F1. Economic needs for a long-term labor force.
- F2. A need to replace an aging workforce to maintain or increase economic productivity.
- F3. A desire to increase the tax base over the long term.
- F4. A need for workers to care for an increasingly elderly population.
- F5. Economic need for a young labor force.
- F6. Economic need to fund pensions.
- F7. A need to replace an aging workforce to keep economy competitive with countries that have younger populations.

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- (G)** Explain ONE way in which a government may influence an individual’s family planning decisions by implementing a pronatalist policy. **1 point**

Accept one of the following:

- G1. A government may provide incentives (e.g., financial, tax) for couples to have children.
- G2. A government may provide paid maternity and paternity leave policies as incentives for working parents to have children.
- G3. A government may offer publicly funded or subsidized infant care or childcare to encourage working parents to have children.
- G4. A government may penalize or tax couples with no children or too few children.
- G5. A government may incorporate into law religious dictates that encourage procreation.
- G6. A government may utilize media through use of public service announcements, ads, websites, or movies that promote having children.

Total for question 1 7 points

Question 1 Question 2 Question 3



Begin your response to each question at the top of a new page. Do not skip lines.

- A.) Total Fertility rate is the average number of children born ~~to a group of women~~ per woman in her child-bearing years.
- B.) TFR is based on the average number of children born per woman however rate of Natural increase is a measure of the rate at which the population increases. NIR takes ~~into account~~ TFR and death rates into account when calculated. TFR ~~has~~ is not affected by death rates.
- C.) TFR often decreases as a country shifts from an agri to manufacturing based ~~to~~ economy. It will decrease because as a country industrializes, women become more active in the work force and society and have less time for reproduction.
- D.) As access to education for women increases, ~~the~~ TFR decreases. Women with access to sex education and all education are less likely to become pregnant. Educated women may be more likely to choose birth control, abstinence, or focus on a career facilitated by their education rather than become pregnant.
- E.) Specialized women's health care greatly affects a country's TFR. Women's health care can greatly reduce the TFR through birth control, sterilization, and abortion services. On the other hand, women's health care can increase TFR by providing safer pregnancy and delivery services.
- F.) Governments may enact pro-natalist policies because as the dependency ratio increases, the workforce and ~~spread~~ economy might not be able to support the older generation. Young people with ~~perceived~~ and their tax dollars will be needed to provide care and

Question 1

Question 2

Question 3



Begin your response to each question at the top of a new page. Do not skip lines.

Stimulate the economy in place of the older population.
Often times governments enact pro-natalist policies to ~~ensure~~
~~having~~ people with children avoid this crisis.

G.) Governments often offer ~~pro-natalist~~ money support to encourage ~~pro~~ families to reproduce. Families in need of government subsidies ~~and~~ might consider having more children if they are being paid to do so.

Question 1

Question 2

Question 3



Begin your response to each question at the top of a new page. Do not skip lines.

~~Total fertility rate is the amount of children born per woman in a country.~~

- A: Total fertility rate is the average amount of children born to a woman in the country.
- B: One difference between the total fertility rate and the rate of natural increase is that total fertility rate just takes into account the children born, and rate of natural increase includes the death rate too. The rate of natural increase is the ~~crude birth rate~~ crude birth rate compared to the crude death rate. The total fertility rate only focuses on how many children are born, not when or how many of them die.
- C: One way the total fertility rate changes ~~increases~~ as a country shifts from an agricultural economy to a manufacturing-based economy is that less children are born. This is because the country is becoming more developed, so the infant mortality rate is lower. The reason fertility rates are so high when the country is an agricultural economy is that the country is less developed, meaning the infant mortality rate is high. This causes women to have more children because they want some of them to survive. When the infant mortality rate is lower, the women will have less children making the total fertility rate lower too.
- D: Access to education for women in less developed countries will affect the total fertility rate by making it lower. This is because women having access to education will make them more eligible for the work force. When the women are working, all of ~~their~~ their focus isn't on having children anymore. This leads

Question 1 Question 2 Question 3



Begin your response to each question at the top of a new page. Do not skip lines.

to them having less and the total fertility rate becoming lower.

E: Access to specialized healthcare for women in more developed countries is likely to affect the total fertility rate by a lot. This is because it will help ensure that less can go wrong during pregnancy and birth, so women won't be so concerned with having a lot of children hoping a few will survive. This will cause the total fertility rate to go down. For example, in the United States, where we have these advancements, the average amount of children per family is two or three. On the other hand, in less developed countries without these advancements the average amount of children per family might be around six instead.

F: One economic reason why governments enact pronatalist policies is so that more children are born that will be able to enter the working class. If there aren't enough children born to create a big enough working class, it's hard to support the larger elderly population. This causes a lot of economic problems for the country.

G: One way in which a government may influence an individual's family planning decisions by implementing a pronatalist policy is encouraging them to have more children because it's easier. A pronatalist policy would make it easier for a family to have more kids, take care of them, and work because the government is helping them out.

Question 1 Question 2 Question 3



Begin your response to each question at the top of a new page. Do not skip lines.

A) Total fertility rate is how many children ~~are~~ being born each year a mother will have in ~~her~~ her life.

B) The total fertility rate can vary much more than the rate of natural increase.

C) Total fertility rate will decrease because families won't need to have as many children working on farms now that factory work is available.

D) Total fertility rate will decrease because women will learn about sanitation and contraceptives. They will understand the benefits to having less children and have the ability to stop having them as well.

E) Total fertility rate could either increase or decrease. It would increase because women will have advanced healthcare and will be able to care for many children. However it could also decrease because women could learn about and health issues or birth defects that may keep a family from having a child.

F) In order to keep their population growing steadily, ~~the~~ having a decent amount of children being born keeps ~~the~~ jobs filled as they grow up and the economy in good shape.

Question 1

Question 2

Question 3



Begin your response to each question at the top of a new page. Do not skip lines.

G) Families may be more motivated to have children if they knew they would get something in return.

Question 1

Note: Student samples are quoted verbatim and may contain spelling and grammatical errors.

Overview

Students were expected to know the definition of the total fertility rate, and how it relates to the rate of natural increase and economic, social, and political factors. The stem of the question noted that students are to explain how the total fertility rate changes given shifts in a country's economic structure, increased access to education, the impact of advanced healthcare, and the effect of pronatalist policies. This allowed students to demonstrate their geospatial knowledge of how these factors affect changes in the total fertility rate in less developed countries or more developed countries.

In Part A, students were asked to define the total fertility rate. In Part B, they were asked to describe one difference between the total fertility rate and the rate of natural increase. Parts A and B would seem to be simple, but students often confused the total fertility rate with other demographic measures (e.g., the infant mortality rate) or used the definition for birth rates. Because the correct response in Part B was dependent on a correct response in Part A, this often negated the Part B response even where it was partially correct.

In Part C, students were to describe one way in which the total fertility rate changes as a country shifts from an agricultural to a manufacturing economy. Part D asked the students to explain how access to education for women in less developed countries would affect the total fertility rate. Parts C and D focused on uneven development. Students here were generally successful in linking shifts in the economic structure from high labor, traditional agricultural to higher paying and more gender-equitable manufacturing and services careers, coupled with the empowering effects of education for women as highly likely causes of decreasing fertility rates.

In Part E, the students needed to explain the degree to which advanced healthcare for women in more developed countries affected the total fertility rate. To earn this point, students needed to state a degree to which this was true or not using terms such as “highly likely,” “to a great degree,” etc. A large majority of students did not seem to recognize the need to “explain the degree to which” in this question. Students could readily identify the advantages of advanced healthcare for women in more developed countries and that it would lead to lower fertility rates, but they rarely expressed “the degree to which” healthcare affected fertility rates—whether access to healthcare had a small but perceivable impact, a moderate but measurable impact, or a strong or significant impact on decreasing fertility rates.

In Part F, the students were to explain one economic reason why governments enact pronatalist policies. And in Part G, they were to explain how a government's implementation of a pronatalist policy could influence an individual's family planning decisions. In Parts F and G, students did well if they understood what pronatalist policies were. In many cases, the responses confused pronatalist with antinatalist policies such as China's one child policy. Those who understood pronatalist policies were able to clearly explain both the economic reasons for them, and the actions a government might take to influence family planning.

Combined, the seven parts of this question took the basic knowledge of the total fertility rate and applied it to the students' understanding of how uneven global development affects total fertility and what factors lead to declining fertility, and knowing why some countries would try to reverse fertility trends.

Question 1 (continued)

Sample: 1A

Score: 7

The response to part A earned 1 point because it correctly defines the total fertility rate.

The response to part B earned 1 point because it describes one difference between the total fertility rate and the rate of natural increase.

The response to part C earned 1 point because it explains how the total fertility rate decreased as a country shifted from an agricultural economy to a manufacturing-based economy as women become more active in the workforce.

The response to part D earned 1 point because it correctly explains how access to education for women in less developed countries decreased the total fertility rate through access to birth control.

The response in part E earned 1 point because it explains that access to specialized health care in developed countries is likely to greatly affect the reduction in total fertility rates through birth control and other women's health services.

The response in part F earned 1 point because it correctly explains that a lower number of young workers may not be able to support an aging population (dependency ratio) as one reason why governments would enact pronatalist policies.

The response in part G earned 1 point because it correctly explains one way in which a government may influence an individual's family planning decisions by offering money, subsidies, and other support to families to incentivize having additional children.

Sample: 1B

Score: 5

The response to part A earned 1 point because it correctly defines the total fertility rate.

The response to part B earned 1 point because it describes one difference between the total fertility rate and the rate of natural increase.

The response to part C did not earn a point because it does not explain how the total fertility rate changes as a country shifts from an agricultural economy to a manufacturing-based economy.

The response to part D earned 1 point because it correctly explains how access to education for women in less developed countries decreases the total fertility rate as education may make them eligible to join the workforce.

The response in part E earned 1 point because it explains that access to specialized health care in developed countries can decrease the total fertility rate significantly due to information on personal reproductive health.

The response in part F earned 1 point because it explains that governments enact pronatalist policies in order to increase the workforce to support the elderly population.

Question 1 (continued)

The response in part G did not earn a point because it does not correctly explain one way in which a government may influence an individual's family planning decisions by implementing a pronatalist policy.

Sample: 1C

Score: 3

The response to part A did not earn a point because it does not correctly define the total fertility rate.

The response to part B did not earn a point because it does not describe one difference between the total fertility rate and the rate of natural increase.

The response to part C earned 1 point because it explains how the total fertility rate decreases as a country shifts from an agricultural economy to a manufacturing-based one as children are not needed for farm labor.

The response to part D earned 1 point because it explains how access to education for women in less developed countries decreased the total fertility rate as women had increased access to family planning through contraceptives.

The response in part E did not earn a point because it does not explain the degree to which access to specialized health care in developed countries is likely to affect the total fertility rate.

The response in part F earned 1 point because it explains why governments would enact pronatalist policies in order to keep the economy strong.

The response in part G did not earn a point because it does not correctly explain one way in which a government may influence an individual's family planning decisions by implementing a pronatalist policy.