

# AP<sup>®</sup> HUMAN GEOGRAPHY

## 2010 SCORING GUIDELINES

### Question 3

The population pyramids above represent two countries at different stages of the demographic transition and economic development.

#### Part A (2 points)

Explain the demographic characteristics of each country above with respect to the demographic transition model.

##### Country A

- Must mention Stage 2 (second or early expanding stage) AND elaborate briefly about its characteristics, such as high birth rate, falling death rate, youthful population, developing country.
- It is not acceptable to suggest Stages 1 or 3 for Country A.

##### Country B

- Must mention Stage 4 (fourth, final, or low stationary stage) AND elaborate briefly about its characteristics, such as low birth rate, low death rate, aging population, developed country.
- It is acceptable to mention a possible Stage 5 (fifth stage) for Country B.

#### Part B (2 points)

Discuss ONE positive impact of EACH country's population structure on its economic development.

##### Country A (1 point)

- Expanding or large workforce
- Youthful population, which can spark creativity, receptivity to change, etc.
- Less need for immigrant labor
- Less need for elder social safety net (e.g., Social Security)

##### Country B (1 point)

- Educated (skilled, experienced, etc.) workforce
- Low youth dependency ratio
- More women in the compensated workforce
- Tendency to spend discretionary income on needs other than education
- Might need immigrant labor, which would allow citizens to take higher-order jobs

#### Part C (2 points)

Discuss ONE negative impact of EACH country's population structure on its economic development.

##### Country A (1 point)

- High youth dependency ratio
- Strain on resources, the environment or society owing to rapid population growth
- Low literacy rate for women
- Fewer women in the compensated workforce

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**Question 3 (continued)**

Country B (1 point)

- High elder dependency ratio
- Possible future labor shortage
- Greater need to fund elder social safety net (e.g., Social Security)

Write in the box the number of the question you are answering on this page as it is designated in the exam.

3A. The demographic transition model states that countries go through four stages of demographic transition, corresponding to economic development. In stage one, both birth rate and death rate are high, and population ~~growth~~ remains static. In stage two, ~~birth~~ and three, death rate drops, followed by a drop in birth rate as ~~the~~ people gets more education and women are more empowered. Finally when the country is relatively developed, both birth and death rates are low, and population ~~growth~~ falls to about zero. Country A has significantly larger youth population in comparison to its older generation, showing that the country is most likely to be in the second stage of demographic transition model, in which the death rate ~~is~~ is low and birth rate is high. Country B, on the other hand, is ~~is~~ showing a somewhat even ~~static~~ age distribution, showing a relatively static population with little increase. This is an indication that the country is likely to be in the final stage of the demographic transition model, in which both birth rate and death rate are low.

3B. Country A's population structure may be beneficial to the country's economic development as there is an extremely small percentage of ~~the~~ older generation, and the youth constitute a large percentage of the population. As the country is probably beginning its industrialization process, a large youth population means that large number of people are entering the workforce mainly in manufacturing industries. This provides enormous economic

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opportunities for the country as large numbers of ~~labor~~ labors is a possible source of ~~comparative~~ comparative advantage.

A possible advantage of population structure of country B is that with zero or negative population growth, the country which is already ~~an~~ developed is going to benefit from population stability as most ~~of~~ of the workforce of the country is expected to be in ~~the~~ tertiary sector with high per-capita income. A stable / decreasing population ensures that there are plenty of job opportunities for college graduates ~~and~~ and the society has abundant resources for the citizens, for example health service.

3C. A negative impact of country A's population structure is that the population is ~~fast~~ growing too fast. With rapid population growth, the ~~same~~ country will be unable to allocate its resources such to ~~not~~ satisfy the <sup>need</sup> ~~interests~~ of all citizens. As a result, although the country ~~may~~ may experience high rate of economic growth, GDP per capita may remain low, and a wider income gap is expected. Furthermore, the indication that the country will heavily develop its ~~the~~ secondary sector may create serious environmental problems that hinders future ~~the~~ growth.

A negative impact of country B's population structure is high dependency ratio. High proportion of elderly and ~~for~~ children is a burden of the ~~working~~ workforce, ~~so~~ so that the country

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may impose high income tax which lowers real disposable income and inhibits the inflow of foreign talents which is essential to the country's tertiary sector.

A Country A is in more of a stage 2 because of the high numbers of children. This means they have passed stage 1 and discovered the medical revolution. However the # of kids is disproportionately large compared to the number of adults meaning they have not hit stage 3 where women are more informed about contraceptives and are experiencing female empowerment. Country B is in either late stage 3 or early stage 4 because the population pyramid is relatively even. The women have experience with contraceptives and are focusing on their careers rather than staying at home and taking care of the kids.

B. One positive impact of country A's population structure is that when the kids get older there will be a large number of people for the workforce and military which will strengthen the country's economy and military power. One positive impact for country B is that rate of natural increase is pretty level, but will not start dropping because of demographic momentum. Also the dependency ratio is pretty even.

C. One negative impact of country A's population structure is that there are many kids, and if

3 (cont)

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Write in the box the number of the question you are answering on this page as it is designated in the exam.

more kids decide to have many kids, the population will increase tremendously, and the country may surpass its carrying capacity. One negative effect of country B's population structure is the fact that if women continue not having babies, the population will keep decreasing. The death rate will pass the birth rate and in the future that will affect the workforce and military because there will be less candidates to choose from and less people to do the job. This will hurt the country in the long run, especially if the girls keep deciding to not have babies.

If the country were the United States, with the less number of candidates to choose from, and the wrong ones being selected, the country would experience the stereotypical things such as the "dumb American." There will be less people to be firemen, police officers, teachers, etc which are all vital to the country's safety, education, and well being.

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[A] In Country A, there is a very large population of young people ages 0-14. As seen in the model, not many members of the population live into late adulthood. The life expectancy in Country A is relatively low. Families have high numbers of children, suggesting a high fertility rate. This country is likely shifting from an agricultural economy to a manufacturing economy. In Country B, the population is rather evenly dispersed. The life expectancy is much higher as evidenced by a larger percent of the population being ~~part~~ ~~of~~ alive in late adulthood. The fertility rate is fairly low and stable which is suggested by the ~~larger~~ <sup>smaller</sup> population in the 0-14 range. This country is likely well developed and in a service-based economy.

[B] In Country A, the large amount of younger adults and children will allow for quick and easy agricultural or industrial expansion. The labor force is large and most likely unskilled. This is perfectly acceptable for the time since an intelligent labor force isn't necessary for basic farming or factory work. In Country B, the population is ideal for a service economy, for there is a large number of adult workers available. This makes



for an intelligent and experienced work force. People are living till retirement and young children can receive educations before being thrust into the work force. This will continue to make <sup>the</sup> skilled labor necessary for economic growth.

[C] Country A, although it has a large and easily accessible work force, will not easily expand with its current conditions. The uneducated labor will have little knowledge or motive to revolutionize the industries and economic development will be slow moving at best. Since people aren't living long enough as an aggregate, the idea of an experienced labor force is dissipated. This, too, damages development. In Country B, there will come a point when too many "blue-collar" jobs are being filled by highly OVER qualified workers. If anyone receives a college education, no one will work in the grocery stores or factories. The population of younger people must work twice as hard to get the same job their parents had, leading to discouraged workers, which leads to unemployment or removal from the labor pool. This will slowly harm long-term economic development. Also, many people are living longer, but they aren't necessarily

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working towards improving the state's economy. In the US, for example, Social Security payments are a massive burden for the economy. The government must tax the people and businesses more which leads to slower economic growth.

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## 2010 SCORING COMMENTARY

### Question 3

#### Overview

The question was designed to enable students to show how well they understood the demographic transition and the implications of a population's demographic characteristics for economic and social conditions and economic change.

#### Sample: 3A

**Score: 6**

The essay demonstrates a fundamental understanding of the demographic transition and population structures as well as the ties of each to economic development and was awarded full credit. In part A the essay received 1 point for correctly identifying Country A as being in the second stage of the demographic transition by stating that “the death rate is low and birth rate is high.” An additional point was earned for indicating that Country B is in the final stage of the demographic transition and noting that “both birth rate and death rate are low.” The response merited 2 points in part B for discussing the positive impact of an expanding labor pool by indicating that a large, youthful population translates into a sizable workforce for Country A and for discussing the positive impact of sufficient “job opportunities for college graduates” and “resources” (to use on needs other than education) in Country B. The essay was granted 2 points in part C for correctly discussing the negative impact on the environment created by extensive secondary-sector development in Country A and by alluding to a possible future labor shortage because of a decreased “inflow of foreign talents” necessary to expand the new tertiary sector in Country B.

#### Sample: 3B

**Score: 4**

The essay received partial credit in part A (1 point), partial credit in part B (1 point) and full credit in part C (2 points). The response earned 1 point in part A for correctly identifying Country A as being in Stage 2 of the demographic transition “because of the high numbers of children.” No point was awarded for Country B, as the population pyramid is clearly in Stage 4 (not “late stage 3 or early stage 4”). The essay was granted 1 point in part B for discussing the positive impact of an expanding workforce on the economy of Country A. No additional point was awarded for Country B, as the discussion is not about economic impacts. The essay merited 2 points in part C for correctly discussing the negative impact of having too many children in Country A, which could “surpass its carrying capacity,” and for considering the likelihood of a future labor shortage in Country B as a result of having fewer people available for employment.

#### Sample: 3C

**Score: 3**

The essay received no credit in part A, full credit in part B (2 points) and partial credit in part C (1 point). The response was given no credit in part A because no connections are made between the population pyramids and the demographic transition for either Country A or B. The essay earned 2 points in part B for discussing the positive impact of an expanding workforce owing to the presence of a large labor pool in Country A and for explaining the positive impact on employment of an educated (“intelligent and experienced”) workforce in Country B. In part C no credit was granted for Country A because the essay does not discuss negative impacts such as high youth dependency ratios, gender issues or a strain on resources. The response was awarded 1 point for the discussion of the negative impact on Country B's economy of people's “living longer,” which creates a high elder dependency ratio.