CollegeBoard
Advanced Placement Program

Student Performance Q&A:
2008 AP® Human Geography Free-Response Questions

The following comments on the 2008 free-response questions for AP® Human Geography were written by the Chief Reader, Tim Strauss of the University of Northern Iowa in Cedar Falls. They give an overview of each free-response question and of how students performed on the question, including typical student errors. General comments regarding the skills and content that students frequently have the most problems with are included. Some suggestions for improving student performance in these areas are also provided. Teachers are encouraged to attend a College Board workshop to learn strategies for improving student performance in specific areas.

Question 1

What was the intent of this question?

This question focused on the comparison of two important land-use models (the von Thünen model and the Burgess model), their assumptions, and the concepts and processes underlying their spatial distributions. Part A asked students to identify the type of land use addressed by each model. Part B required students to identify two common assumptions of both models. Part C asked students to explain, for each of the models, the effect of relative location on the resulting land-use patterns.

The question tested knowledge of two sections of the *AP Human Geography Course Description*. The "Agricultural and Rural Land Use" section, in particular the "Rural land use and settlement patterns" portion of the Topic Outline, emphasizes the importance of the von Thünen model within the AP Human Geography curriculum. In the "Cities and Urban Land Use" section, the Burgess model, as well as the Hoyt and Harris–Ullman models, are named as important models of internal city structure. In addition, the "Goals" section of the Course Description discusses the importance to human geographers of relationships among spatial patterns and processes, and of interconnections between places; these concepts were especially relevant for answering part C.

How well did students perform on this question?

Students found this question to be challenging. The mean score was 1.52 out of a possible 7 points (21.7 percent of the maximum achievable score).

In part A many students could identify the type of land use addressed by the von Thünen model, but few could identify the type of land use addressed by the Burgess model. In part B students did moderately well with identifying common assumptions about the two models. Many could identify at least one assumption, but few could identify two. Assumptions related to isotropic (or flat or homogeneous) landscapes were most commonly cited. The assumed importance of a central location (market, central business district) was also noted by some students. Fewer students mentioned the isolated nature of the analyzed system. In part C few students seemed to have knowledge of the concept of relative location, at least as it related to the context of the two models. Students who did earn points in this section commonly discussed how relative location affects the production of perishable foods. Some students discussed intensive versus extensive land uses, mainly in the agricultural context, and several mentioned the spatial distribution of socioeconomic classes in the urban context.

This question differentiated among three groups of students. Students with only a basic understanding of the von Thünen model typically earned up to 2 points, usually in part B. Students having more familiarity with the von Thünen model usually could identify one or two assumptions (part B) and explain the importance of relative location (part C) to earn 3 to 5 points; some of these students could also demonstrate knowledge of the Burgess model to earn credit in part A. Students with a complete understanding of both models and the principles underlying them earned 6 to 7 points.

What were common student errors or omissions?

- Many students were unfamiliar with the Burgess model. Some students described it as a mixed agricultural/urban model or as a modified form of the von Thünen model (e.g., with a river flowing through the concentric rings). A few students confused the work of Burgess with that of Christaller or Mackinder.

- Several students reversed their discussions of the Burgess and von Thünen models, linking them to incorrect land uses.

- In general, students had a weak understanding of the assumptions underlying the models. Reponses were limited largely to superficial descriptions (e.g., "flat surface"), and many students were not able to identify a second assumption to earn full credit in part B.

- Many students seemed to think that the von Thünen model was based on the perishability of goods; students had little understanding of either model's economic underpinnings or concepts, such as bid rent, land value, and accessibility.

- In part C most students did not understand the concept of relative location. Several students discussed it in terms of the geographic context of the model rather than locations within the model.

- Some students focused on critiquing the models rather than responding directly to the prompts given in the question.

- Several students lacked a clear understanding of the terms "land use" and "model."

2

- Many students knew the models well enough to describe their spatial patterns, but fewer knew their underlying assumptions or understood the processes resulting in these patterns.

Based on your experience of student responses at the AP Reading, what message would you like to send to teachers that might help them to improve the performance of their students on the exam?

See the suggestions at the end of the discussion of question 3.

Question 2

What was the intent of this question?

This question focused on the identification of spatial patterns and the explanation of processes underlying these patterns, using the example of domestic migration within the United States. A map showing county-level migration data for the contiguous United States was used as stimulus. Each county was shaded according to whether it had experienced net in-migration or net out-migration during the period 2000–2006. Students were asked to identify two specific regions of net in-migration (part A) and two specific regions of net out-migration (part B). In part C students were required to explain the processes of migration within the United States in terms of economic structure, friction of distance, and the age structure of the population.

Question 2 is linked to the "Population" section of the Topic Outline. The narrative for this section discusses the importance of migration in affecting place-specific population growth and decline. It also notes that the analysis of migration flows, including internal migration, "helps students appreciate the interconnections between population phenomena and other topics." The question required students to examine interconnections between domestic migration, on the one hand, and economic factors, geographic factors, and demographic factors on the other. Thus, material from the "Industrialization and Economic Development" section was also useful for addressing this question, as was material from the "Goals" section of the Course Description, especially material on changing interconnections between places.

How well did students perform on this question?

Students did moderately well on this question. The mean score was 2.93 out of a possible 8 points (36.6 percent of the maximum achievable score).

Many students correctly identified regions of in-migration and out-migration in parts A and B. In general, regions of out-migration were more accurately identified. Of the three items in part C, students were most likely to earn points for the third item, "Age structure of the population." Students most commonly discussed the migration of older people (e.g., retirees to Florida); others explained the migration patterns of younger people (e.g., college graduates). Students were less likely to earn points for explaining the role of economic structure and friction of distance in the migration process.

This question differentiated among three groups of students. Students who could, at most, identify regions of in-migration or out-migration, or perhaps identify but not explain a process contributing to this pattern, earned 0 to 2 points. Students with more ability to identify regions and discuss

relevant processes typically earned 3 to 5 points. Finally, students who more thoroughly explained these underlying processes earned 6 to 8 points.

What were common student errors or omissions?

- Several students had difficulty reading the map or identifying appropriate specific regions of in-migration or out-migration.

- The regions identified were often either incorrect or too general. A few students provided only one region rather than two in part A or part B.

- Many students were unfamiliar with the concept of economic structure. Several students confused it with push-and-pull factors of migration or with Ravenstein's laws of migration.

- Many students were unfamiliar with the concept of friction of distance or were unable to link the concept to recent migration patterns.

- Several students focused on international migration to the United States, although the question focused on domestic migration within the United States. Others discussed historical migration patterns, although the focus of the question was on more recent patterns.

- Student responses for part C often identified relevant processes but lacked complete explanations and thus did not earn full credit.

- Several students discussed factors influencing migration that were not directly related to any of the items in part C.

Based on your experience of student responses at the AP Reading, what message would you like to send to teachers that might help them to improve the performance of their students on the exam?

See the suggestions at the end of the discussion of question 3.

Question 3

What was the intent of this question?

This question asked students to discuss the impact of girls' education on population dynamics, economic development, and gender roles in the developing world. Students were provided with a graph of female enrollment (girls per 100 boys) in secondary schools for several countries in the developing world. In part A they were asked to identify the trend displayed. Students were then asked to identify and explain an effect of this trend on population growth (part B), economic development (part C), and gender roles (part D) in the developing world.

The question required students to synthesize information from several sections of the Topic Outline. The narrative for the "Population" section explicitly poses the question, "how might increasing the education levels of females lead to lower fertility?" This section highlights the

4

importance of place context when examining "why fertility rates have dropped in some parts of the developing world but not in others." Complete and correct responses to this question also required knowledge of the "Industrialization and Economic Development" section, especially material related to concepts of economic development and the role of place-specific culture, politics, and history in influencing economic activity. Moreover, the narrative for the "Cultural Patterns and Processes" section stresses the importance of gender in understanding cultural identity and cultural differences.

How well did students perform on this question?

Students did well on this question. The mean score was 4.08 out of a possible 7 points (58.3 percent of the maximum achievable score).

In part A almost all students correctly identified the trend shown in the graph. In part B most students correctly identified an effect of the trend on population growth in the developing world, and many of those students provided an appropriate explanation of the effect to earn full credit. In parts C and D several students identified effects of the trend on economic development and gender roles, respectively, but fewer students supported their arguments with explanations that were sufficient to earn full credit, especially in part D.

This question differentiated among three groups of students. The first group could identify the trend and perhaps an effect of this trend to earn up to 2 points. Students earning 3 to 5 points could identify the trend and more than one effect of this trend, sometimes with an explanation. Finally, students who identified the trend and fully explained its effects earned 6 to 7 points.

What were common student errors or omissions?

- Some students incorrectly interpreted the graph. Several of these students focused on the static description (more boys than girls being enrolled in school) rather than the trend (relative increase in the proportion of girls being enrolled over time). Others interpreted the graph as representing population growth rather than a ratio of school enrollment. A few students reversed the interpretation of female versus male enrollment on the graph.

- Many students did not provide detailed explanations to earn full credit, especially in parts C (economic development) and D (gender roles). Several students simply restated the identification of the effect but could not further articulate the point. In particular, many students did not fully explain the effect on gender roles. In parts C and D many students had difficulty organizing their arguments clearly in terms of cause and effect.

- Several students used examples from the developed world, although the context of the question was the developing world.

- Several of the responses were unorganized, poorly constructed, or relied on stereotypes of developing countries or gender roles.

- Many students discussed the importance of education in general but did not link it to the context of the question.

Based on your experience of student responses at the AP Reading, what message would you like to send to teachers that might help them to improve the performance of their students on the exam?

The following is a summary of ideas that were generated in discussion and collaboration with the 228 Readers and the Question and Table Leaders of the 2008 AP Human Geography Exam. The summary reflects the wisdom of the members of this group, who have firsthand experience with both teaching the course and scoring the exam with the scoring guidelines developed specifically for these questions.

- Focus on the AP Human Geography Topic Outline during course preparation. Consult a wide variety of textbooks, supplements, and related instructional materials to ensure comprehensive coverage.

- Train students how to take the exam. Teach them to spend five minutes per question to read the question carefully and take the time to interpret correctly any stimulus material, identify key words in the question, and outline their responses in a manner that is consistent with the structure of the question. Teach students to proofread their responses to ensure that each element of each question has been addressed. Encourage them to attempt every free-response question.

- Teach students to organize their responses into sections, using the structure of the question as a guide, and to begin each question on a new page. Encourage them to write legibly. Consider teaching them to underline key points, ideas, and phrases in their answers. Stress the importance of writing responses in a clear and organized manner.

- Provide practice exams that give students opportunity to respond to structured free-response questions. Replicate the experience of the AP Exam in your classroom as much as possible. Consider creating practice exams with two to three questions to give students experience with time management. Involve students in the scoring of these exams to familiarize them with the AP Scoring Guidelines and with the kinds of responses that earn credit. More generally, incorporate writing exercises into lessons whenever possible.

- Train students to be explicit and precise in their responses and not to assume that unstated information and arguments will be taken for granted by the Reader. In questions 2 and 3, in particular, students lost points by not fully explaining processes and effects they had already identified.

- Make sure students understand what is expected when prompts like "explain," "define," "identify," and "discuss" are used in a question. Have students practice writing responses to such prompts. Also, train them to identify other key words in each question. For instance, several students lost points by misinterpreting the prompt to identify the *trend* shown in question 3.

- Show students how to interpret stimulus material, such as maps, graphs, and charts.

- Ensure that students have at least a basic level of geographic literacy—this is important, even though AP Human Geography is not a map-reading or world geography course.

- Stress interconnections across the seven sections of the Topic Outline. Encourage students to integrate concepts from different areas of the course when appropriate.

- Reinforce the importance of being familiar with relevant vocabulary. Encourage students to define terms in their own words to help them understand key geographic concepts and to apply these concepts to a variety of contexts.

- Ensure that students understand the models used in human geography (e.g., von Thünen's agricultural land-use model, central place theory, urban land-use models), their underlying assumptions, the contexts in which they are used, and the differences between them. Teach students to understand not only the hypothesized patterns predicted by these abstract models but also the principles, processes, and assumptions generating these patterns. Train students to apply these models in actual spatial and temporal contexts, teaching them to appreciate both the insights to be gained and the real-world complications to be addressed.

- Help students learn how to be analytical, to focus on the geographical and spatial aspects of questions, and to develop process-oriented responses when appropriate. Ensure that students understand relationships between spatial processes and spatial patterns.

- Consider attending a workshop to gain up-to-date knowledge on content and teaching strategies. Teachers who are new to the field of human geography may especially benefit from such workshops taught by experienced instructors.

- Use the resources on AP Central® to access contemporary teaching materials, case studies, teaching tips, and questions from past exams. The AP Human Geography Electronic Discussion Group is used by college and high school faculty as an active forum for the exchange of ideas about teaching the course.

- Consider applying to be a Reader.