

# AP<sup>®</sup> HUMAN GEOGRAPHY

## 2013 SCORING GUIDELINES

### Question 3

Over the past 150 years, railroad and highway systems influenced patterns of urban growth in the United States.

#### Part A (4 points)

Identify and explain one way that railroads affected the size and one way that railroads affected the form of cities in the United States between 1870 and 1920.

Size of cities: identify and explain one of the bulleted points below for a total of 2 points.

Cities grew:

- Stimulate economic growth: railroads connectivity/accessibility accelerated economic activity in cities
- Migration/labor force: population increased due to increased connectivity
- Corridors: cities increased in size along rail corridors due to increased connectivity
- Range: range of services and employment increased in distance from city center
- Commercial zone: industrial land use area increased to accommodate rail yards, stations, warehouses, engine shops

Cities declined:

- Bypassed cities: some cities declined that were not connected to the RR network

Form of cities: identify and explain one of the bulleted points below for a total of 2 points.

- CBD growth: central business district emerged and expanded
- Corridors: industrial corridors/districts along railways, depots, rivers, ports
- Urban pattern: star patterns or hub-and-spoke patterns, streetcar suburbs, wider roads
- Land values: real estate around passenger stations became more valuable and popular; railroads created socio-economic divisions

#### Part B (4 points)

Identify and explain two ways that the Interstate Highway System affected cities in the United States between 1950 and today.

Identify and explain two effects from below (only use each bulleted effect once for a maximum of 2 points).

- Relocation of economic activities: services, offices, retailing centers, transportation hubs, light industry and warehousing to highway interchange areas
- Suburbanization: larger suburban labor force could independently access downtowns by car without living there; contributed to decline or depopulation of city centers.
- Land use change: sprawl, suburban area expands as highways radiated out of city; more land area to automotive uses (e.g., parking lots, more lanes, eminent domain); divides city and creates socioeconomic divisions
- Increased economic connectivity: increased accessibility between cities reducing travel time/costs leads to economic growth; increased trucking with reduced shipping costs leads to economic growth
- Conurbations: highway corridors are spaces where conurbations form (I-95 in the northeast and South Florida; I-10 and 5 in Southern California)
- Edge cities: highways promoted the growth of Edge Cities near interchanges
- Environment: increased air, water, noise, and light pollution in cities, urban heat island
- Bypassed cities: some cities declined that were not connected to the highway network

A.

Railroads have had a strong influence on the city size and formation of the city during the 1870 and to 1920.

Sizes of cities increased because of railroads. Railroads made it easier for transportation of goods which means it reduced the relative distance. Increase urbanization occurred, and people flocked to the city. Industries sprouted. This was because they could use the railroads to ship products much more faster and efficiently. People came to get the industrial jobs which increased the size of many cities.

Cities The form of cities were also affected by railroads. This was because cities began to form around the railroad systems. One example would be the sector model of the 1920's. There is one wedge devoted to the railroad tracks. The railroads were near the cities to cater to industrial areas. Because of railroads, cities formed to suite the needs of tracks and industries.

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B.

Interstate Highways have made a huge difference for cities in the United States. Highways made transportation much easier for the everyday citizen. This increased suburbanization. This meant city populations moved to outer areas for more open areas and natural beauty. Since the 1950's, suburban areas have had a huge increase in population while city population has been at an all time low. This meant cities housed much more lower-class citizens who could not afford suburban areas. In all, the highway made transportation easier so people could live farther from the central business district than before.

Another way the highway has affected cities is in the industrial perspective. Highways can move goods fast and efficiently, and they are surrounded by open areas of land. Industries have relocated

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to places along highways for these purposes. They can spread out in a one story building which is much more efficient. They are also located near the highway for quick delivery of products. This affects the cities because they have much less factories because of less ~~trans~~ efficient transport and because of limited and expensive space. The factories in cities had to be multiple stories which were inefficient. Also, city space is expensive and for industries. Highways have made industry move from Central business districts due to cheaper land, more land, and efficient transportation. By the end, cities have come to resemble the newer urban realm model which shows less industry in urban areas and higher suburban growth.

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## ANSWER PAGE FOR QUESTION 3

Railroads affected the size of US cities because more people moved in to them as the railroads grew. The increase in transportation allowed for easy travel in and out of cities, especially for work purposes, and people flocked towards the cities, therefore increasing urban growth. The form of cities changed due to railroads because people were now able to live on the outskirts of the cities & still commute to work by railway. The form of cities became more busy & thriving due to the influx of people by rail system coming to work, visit or live within the areas that railways offered easy access to and from.

Two ways that the Interstate Highway system has affected cities in the United States is the increase in car usage (traffic) and the increase of suburbanization. The Interstate Highway system has affected cities because there is an increase in car useage, an in turn, an increase in city traffic. A downside for cities by or near the Interstate Highway system is that more people are driving seperate cars rather than using public transportation. This increase in car usage has a negative effect on the environment as well as increases the amount of traffic & congestion within cities. The second way the interstate highway system has affected cities is the move from urbanization to suburbanization. Instead of living in cities, people are able to commute from the suburbs to work and therefore people have

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ADDITIONAL ANSWER PAGE FOR QUESTION 3

dispersed farther from cities and into suburban life.  
The Interstate Highway System has increased suburbanization because people no longer feel the dire need to be within or very close to the city.

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A. The size and form of U.S. cities between 1870 and 1920 has changed as a result of the introduction of the railway system. One way that size has been affected is that due to the fact that railroads are able to transport large amounts of people over long distances, more people are moving to the big cities. In order to be able to house so many people, cities have had to increase their size. The large number of people have also forced cities to change their form.

B. The introduction of the Interstate Highway System in the U.S. between 1950 and today has had a reverse effect on cities than the railways did. The highways have encouraged suburbanization. Due to its convenience, people do not feel like they need to be in the city, near their jobs, so they have instead moved outward to suburban areas such as neighborhoods.

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# AP<sup>®</sup> HUMAN GEOGRAPHY 2013 SCORING COMMENTARY

## Question 3

### Overview

This question probed the students' understanding of the changing transportation technology; specifically, how railroads and the Interstate Highway System affected cities in the United States. The impacts of changing technologies of communication and transportation have on the urban and cultural landscapes have fascinated geographers and other scholars for over a century. This question assessed not only students' understand basic concepts of urban geography, but also how well students understand the process of economic development that occurred in the United States. This question enabled students to use some of their knowledge of history to enhance their geographic understanding. Like Question 1, this question was also authentic because the development of cities in the United States has a direct impact on the lives of most students taking the exam. The first part of the question allowed students to demonstrate their knowledge of the Railroad era (third epoch of urbanization) in the United States by discussing how the railroad impacted both the size and form of cities. In the second part of the question, students were expected to show an understanding of how the shift to freeway travel further affected the size and shape of cities. This question assessed students' understanding of several major concepts of human geography, including the various models of internal spatial structure of cities, "time-space compression," threshold and range, suburbanization, and migration.

### Sample: 3A Score: 8

The response demonstrates a comprehensive understanding of how transportation networks affect cities. Full credit was earned in part A (4 points) and in part B (4 points). In part A, 2 points were earned for identifying that railroads affected the size of cities through accelerated economic and population growth. The response earned 2 points for explaining that railroads caused both in-migration by people looking for jobs in the industrial sector and faster and more efficient shipment of goods that resulted in the growth of industries. The response earned 2 points for identifying that cities formed along railroad corridors and for explaining that industrial centers formed along railroads which led to economic growth, citing the sector model. In part B, 2 points were earned for identifying that highway transportation increased suburbanization and explaining that many city residents moved to the suburbs. The response earned 2 points in part B for identifying that industries were placed along highways and that highways facilitate efficient transportation of goods.

### Sample: 3B Score: 6

The response earned partial credit (3 points) in part A and partial credit (3 points) in part B. In part A, 2 points were earned for identifying that railroads allowed more people to migrate to the cities by facilitating the connectivity of labor toward cities. The response earned 1 point for identifying urban patterns were changed in that people could live on the edge of city and commute by rail to work in the city. No additional points were earned in part A because the response provided only more description of commuting and migration. In part B, the response earned 1 point for identifying that highway car traffic and congestion has negatively impacted the environment. No explanation point was earned because the response did not specify air pollution. In part B, the response earned 2 points for identifying a shift from urbanization to suburbanization and explaining that people could live in the suburbs and commute to the cities for work.



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**Question 3 (continued)**

**Sample: 3C**

**Score: 4**

The response earned partial credit (2 points) in both part A and part B (2 points). The response earned 1 point in part A for identifying that cities along railroads have increased in size. The essay earned 1 point in part A (size) for explaining that more people have moved to the cities because of railroads. No other points were earned in part A because the response did not offer an explanation as to how railroads affected the form of cities. The response earned 1 suburbanization point in part B for identifying that highways facilitated suburbanization. The response earned 1 additional suburbanization point for explaining that people did not necessarily need to be near their jobs anymore and moved to the suburbs. No additional points were earned in part B.