AP® Human Geography
2013 Scoring Guidelines

The College Board

The College Board is a mission-driven not-for-profit organization that connects students to college success and opportunity. Founded in 1900, the College Board was created to expand access to higher education. Today, the membership association is made up of over 6,000 of the world's leading educational institutions and is dedicated to promoting excellence and equity in education. Each year, the College Board helps more than seven million students prepare for a successful transition to college through programs and services in college readiness and college success — including the SAT® and the Advanced Placement Program®. The organization also serves the education community through research and advocacy on behalf of students, educators, and schools. The College Board is committed to the principles of excellence and equity, and that commitment is embodied in all of its programs, services, activities, and concerns.

Visit the College Board on the Web: www.collegeboard.org.
AP Central is the official online home for the AP Program: apcentral.collegeboard.org.

AP® HUMAN GEOGRAPHY
2013 SCORING GUIDELINES

Question 1

The high-tech centers of Silicon Valley in California and the Research Triangle in North Carolina have developed in the past 40 years.

Part A (6 points total)

Discuss the following three factors that contributed to the rise of such industrial regions: investment capital, labor, and government.

Investment Capital (2 points)	
Source (1 point)	Target (1 point)
• Investors taking risks • Wealthy technology pioneers or individuals • Companies, firms, businesses • Banks (lenders) • Venture capitalists • Entrepreneurs • University investment	• To develop technologies and/or innovations • New computing hardware. (e.g., iPads, iPods, PCs) • Communications technology (e.g., smart phones, telecommunications) • Robotics • Data storage (e.g., cloud) • Programming (e.g., gaming) • Software (e.g., apps) • Pharmaceuticals • Biotechnology • Materials science (e.g., electronics, medical, energy)

Labor (2 points)	
Pool (1 point)	Outcome (1 point)
• University/professionally educated • Skilled labor (e.g., high or technical) • Highly specialized (e.g., trained labor) • Scientists • Engineers • Creative, innovative, or inventive people	Developing: o knowledge o ideas o technologies o products o companies

Government (2 points)
• Federal/state funding for research and development • Locating federal and state agencies in high-tech centers • Zoning to promote high-tech and research facilities (**Note:** no credit for just the term zoning) • Government funding for transportation, communication or utility infrastructure • State/local economic development (e.g., tax reduction, tax holidays, subsidies) • Government subcontracting to local high-tech firms

AP® HUMAN GEOGRAPHY
2013 SCORING GUIDELINES

Question 1 (continued)

Part B (2 points total)

Define the concept of agglomeration and explain its role in the continuing expansion of such regions.

Agglomeration	
Definition (1 point)	Role in Regional Expansion (1 point)
The clustering of similar or related firms in close proximity to one another **Note:** no credit for merger or consolidation of companies	• Urbanization links to or location on the edge of existing cities providing operating cost advantages • Attracting similar companies to share a specialized or educated local labor pool/infrastructure • Multiplier effects of attracting business services, personal services or labor

AP® HUMAN GEOGRAPHY
2013 SCORING GUIDELINES

Question 2

POPULATION AGE 65 OR OLDER IN 2000 AND 2050 (in percent)

Country	Population Age 65 or Older, 2000 (percent)	Population Age 65 or Older, 2050 (percent)	Change in Proportion 65 Years or Older (percent)
Belgium	17	28	65
Denmark	15	24	59
Japan	17	32	86
Russian Federation	13	25	100
Ukraine	14	27	91
United Kingdom	16	25	56

The average age of the population in selected developed countries listed in the table above has been increasing.

Part A (4 points)

Identify and explain two reasons that the average population age is increasing in developed countries. (1 point for each identification to a maximum of 2 points; 1 point for explanation associated with identification to a maximum of 2 points.)

Reduced Fertility
• Improved education of women, more women working, delays in starting families
• Children are an economic liability in MDCs, too expensive to have several, societal norms (1–2 children)
• Birth control: cost, availability, accessibility, acceptance, quality
• More urban societies: less need for children to work on farms
• Government and private pensions reduce "children as pension"
Increased Life Expectancy
• Improved health care (e.g., medicine, facilities, research/knowledge, personnel, technologies, accessibility)
• Improved lifestyle (e.g., knowledge of health risks, improved diets, technology, nutrition and exercise)
• Improved food security/availability
• Less conflict (e.g., less crime, fewer wars)
• Improved work conditions (e.g., less physically demanding labor, better safety standards)
• Improved public health (e.g., sanitation, water supply, housing, standard of living)
• Improved financial security for elderly (e.g., pensions, care facilities)
• Improved safety standards (e.g., sports, transportation, building codes)
Out-migration of Youth
• Out-migration of youth for better lifestyle (e.g., jobs, security)

AP® HUMAN GEOGRAPHY
2013 SCORING GUIDELINES

Question 2 (continued)

Part B (4 points)

Identify and explain one social consequence and one economic consequence that countries face as their populations age. (1 point for each identification to a maximum of 2 points; 1 point for explanation associated with identification to a maximum of 2 points.)

Social Consequences	**Explanations**
Changing roles of children/elders	• Adult children tending to the personal needs of elders
Increased grey power	• Seniors with more political/personal influence, social and political action on behalf of elderly, more elderly workers, shift in consumerism (e.g., tourism, courses, media, entertainment)
Increased immigration	• Increased immigration results in increased cultural diversity, perhaps social conflicts, growth of ethnic neighborhoods
Changing housing stock	• Homogeneous seniors' neighborhoods (e.g., smaller homes/condos, less maintenance), increased availability of homes for youth
Decline of services for youth	• Closure of schools, reduction in daycares
Need for/growth of services for elderly	• Geriatric medical/social services and facilities
Social conflict due to generational differences of opinions	• Elderly may resist societal changes desired by young, elders resented for requiring excessive human/capital resources
Accessibility	• Changes to building code, signage (e.g., larger font, audio messages
Development of pro-natalist policies	• Created to sustain population
Economic Consequences	**Explanations**
Increased cost to society due to government programs/taxes	• Medical care, housing, accessibility, pensions
Increased economic pressure on the labor force (dependency ratio)	• Challenges sustaining the economy, fewer people working, fewer people paying taxes
Labor supply issues	• Shortage of labor, hiring of elderly, less competition among youth for jobs, need for increased immigration, automation
Changes in employment opportunities	• Growth of senior-based employment • Decline of youth-based employment
Economic pressure on adult children	• Financially assist their aging parents, stay at home rather than work, help pay for others to assist, help pay for nursing homes, help pay medical costs

AP® 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