CHAPTER 18: ANTITRUST POLICY AND REGULATION

Introduction
The information in Chapter 18, while important, is only tested on the AP economics exam in the context of monopolies as discussed in Chapter 10. The important applications to concepts that may be tested are highlighted below.

- Antitrust laws limit the formation of monopolies because such firms raise prices, reduce output, prevent competition, and violate allocative efficiency.
- Because the monopoly's price exceeds marginal cost at the profit-maximizing output, society would benefit from the production of additional products.
- Antitrust laws like the Sherman and Clayton Acts limit monopoly formation and outlaw price discrimination and other techniques designed to prevent competition.
- Horizontal mergers of firms making similar products can create monopoly power. Government regulates mergers that would significantly reduce competition.
- Horizontal mergers can be beneficial if they result in economies of scale or if one of the firms has sustained ongoing losses and is in danger of failing.
- Price-fixing and collusion among oligopolists are illegal under U.S. law, and oligopolists are prosecuted and fined for undertaking such activity.
- Natural monopolies result when economies of scale are so strong that allowing one producer to operate is far more efficient than maintaining several firms in the industry; this is most common among utility companies (electricity, natural gas, public water).
- Government ownership and provision of the utility is one way to limit prices.

Regulated monopoly

- Government regulation of natural monopolies limits price and increases output, setting the price equal to average total cost where it crosses demand, so the firm still earns a normal profit as a "fair return price."
- Socially optimal price and output are where marginal cost equals demand, a lower price and higher output than where government regulators set the price.
- Social regulation of firms involves rules for worker and consumer safety, investor and environmental protection, and discrimination. It is designed to protect people from decisions of firms focused solely on profit maximization at the expense of other important values.
- Government should regulate until the marginal benefit equals the marginal cost of the regulation. However, such costs and benefits can be difficult to determine.
CHAPTER 19: AGRICULTURE: ECONOMICS AND POLICY

Introduction
The information in Chapter 19, while important, is not directly tested on the AP economics exams. The important applications to concepts that may be tested are highlighted below.

- Because the overall demand for food is relatively inelastic in the United States, changes in supply cause significant changes in the price of food products and the incomes of farmers.
- Major improvements in technology and worker productivity have significantly increased the supply of farm products.
- Because demand for food is income-inelastic and population growth has slowed, supply of agricultural products has increased more than demand, which has lowered prices.
- Lower crop prices, along with the inability of small farms to achieve the economies of scale to reduce production costs, have led to the exit of many family farms from the industry and a large number of consolidations into corporate farms.
- The federal government has granted farmers subsidies to reduce production costs.
- Government sets price floors for some farm products in order to keep prices high enough to support family farms. The price floor causes a surplus of the product, because the quantity supplied at the higher price is greater than the quantity demanded.
- The tax burden of the surplus represents tax dollars transferred to farmers, and allocative inefficiency results because resources are over-allocated to agriculture; $abc$ represents the area of deadweight loss.

Price supports, agricultural surpluses, and transfers to farmers

- While the higher price helps farmers, it especially hurts those consumers with low incomes; a larger percentage of their income is spent for food, and they cannot easily reduce the quantity of food purchased, so they must give up buying other goods.
- While price supports increase agricultural output, it also increases negative externalities associated with agriculture, including pollution from pesticides and fertilizers, the loss of wildlife habitats, and higher use of water for irrigation.
CHAPTER 20: INCOME INEQUALITY, POVERTY, AND DISCRIMINATION

Introduction
The information in Chapter 20, while important, is only tested on the AP economics exam with regard to the Lorenz curve and causes of income inequality. The important applications to concepts that may be tested are highlighted below.

<table>
<thead>
<tr>
<th>Quintile (2006)</th>
<th>(1) Percentage of Total Income</th>
<th>(2) Upper Income Limit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lowest 20 percent</td>
<td>3.4</td>
<td>$20,035</td>
</tr>
<tr>
<td>Second 20 percent</td>
<td>8.6</td>
<td>37,774</td>
</tr>
<tr>
<td>Third 20 percent</td>
<td>14.5</td>
<td>60,000</td>
</tr>
<tr>
<td>Fourth 20 percent</td>
<td>22.9</td>
<td>97,032</td>
</tr>
<tr>
<td>Highest 20 percent</td>
<td>50.5</td>
<td>No limit</td>
</tr>
<tr>
<td>Total</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

Source: Bureau of the Census. www.census.gov. Numbers do not add to 100 percent due to rounding.

The Lorenz curve and Gini ratio

- The Lorenz curve illustrates the distribution of household incomes in a country.
- The diagonal line illustrates perfect equality of incomes in the country; the further the Lorenz curve is from the equality line, the more unequal are incomes.
- The Gini ratio (or Gini coefficient) numerically measures the area of inequality; the larger the Gini ratio, the more unequal are incomes in the country.
- Income mobility in the United States allows households to move among income groups; households are not permanently members of a single income class over time.
- Government redistributes income through progressive income taxes and transfer payments (safety net or public assistance programs) such as Social Security, unemployment benefits, welfare assistance, food stamps, housing subsidies, and Medicaid.
- The redistribution of income shifts the Lorenz curve inward toward more equality.
- Transfer payments to those with low incomes account for about 80 percent of the reduction in income inequality; progressive taxes account for the other 20 percent.
- Causes of income inequality include differences in ability, education and training, discrimination, preferences for work over leisure, willingness to assume risk, wealth with the opportunity to earn even more income, market power, connections, and luck (or misfortune).
- Since 1970, income inequality has increased due to greater demand for highly skilled workers, increased pay for CEOs and professional athletes and entertainers, demographic changes of divorce and single heads of households, downward pressure on wages of less-skilled workers due to imports, and the decline of union membership leading to lower wages for workers in industry.
- Poverty is a condition in which a household does not have sufficient income to meet its needs for food, shelter, and basic necessities.
- The poverty rate is the percentage of a country's residents living in poverty. The U.S. poverty rate in 2006 was 12.3 percent.
CHAPTER 21: HEALTH CARE

Introduction
The information in Chapter 21, while important, is not directly tested on the AP economics exams. The important applications to concepts that may be tested are highlighted below.

- Workers' increases in total compensation generally match increases in productivity, but because insurance costs have risen much more steeply than productivity, workers have paid for insurance in more slowly rising wages.
- Because of the high cost of insurance, firms have reduced workers to part-time status, turned to temporary workers, or outsourced work to other countries to avoid these costs and reduce production costs.
- Significant increases in Medicare and Medicaid costs expose opportunity costs for governments, which have to choose between limiting medical benefits, reducing spending for other government programs, or raising taxes to pay for the programs.
- Health care, like other products, should be provided until the marginal benefit equals the marginal cost. Such costs and benefits can be difficult to determine.
- The cost of health care has increased rapidly because the demand for health care has increased more strongly than the supply. Increases in both supply and demand raise the price.
- Health care is income elastic; as incomes increase, the quantity of health care demanded increases.
- Health care is price inelastic; even when the price of health care increases, the quantity demanded decreases only slightly.
- Because 80 percent of health care spending comes from insurance companies and government and consumers do not pay all of the costs of their health care, consumers have increased their demand for health care, resulting in an over-allocation of resources toward health care.
- Good health results in positive externalities, as vaccinations and treatment prevent the spread of disease and because a healthy, productive workforce results in greater output at a lower cost for firms. Therefore, the federal government subsidizes this externality by not taxing health care benefits as income.
CHAPTER 22: IMMIGRATION

Introduction
The information in Chapter 22, while important, is not directly tested on the AP economics exams. The important applications to concepts that may be tested are highlighted below.

- Immigrants move to the United States primarily to find jobs with wages that better compensate their investment in human capital than jobs in their native country.
- Larger wage differences, educational opportunities, health care, and government benefits provide an incentive for workers to move between countries to maximize the return on their investment in human capital.

A simple immigration model

- The increase in the supply of workers lowers the equilibrium wage and results in a greater quantity of workers hired and higher output in the United States. At the same time, the lower supply of workers in Mexico raises the wage and reduces the quantity of workers hired and output. As a result, the differential in world incomes decreases.
- Labor migration increases the output of products with available resources, increasing production possibilities and raising the world’s standard of living.
- Opponents of immigration argue that lower wages for domestic workers reduce standards of living and the “brain drain” of better-educated, highly productive workers hurts long-run economic growth for the countries losing such workers.
- Immigrants’ remittances, sending part of their pay back home to relatives in their native countries, reduce the income gain in the country to which the immigrant has moved and mitigate the loss of workers from their home country.
- While immigration does displace some domestic workers, overall, the number of workers increases as a result of both legal and illegal immigration.
- In cases where illegal immigrants and domestic workers are easily substituted, immigration can lower wages; overall, illegal immigration has had little effect on average wage rates because they are so dependent of labor productivity.
- Because illegal immigrants work for lower wages than domestic workers, prices of products that heavily rely on illegal immigrant labor are lower than they would be if produced by domestic labor; lower prices increase the standard of living.
- State and local governments with large numbers of low-wage immigrants face fiscal strain, because these immigrants pay lower income, sales, and property taxes due to their lower incomes but use public goods such as education and police services and may qualify for income assistance programs.
- Immigration should be increased until the marginal benefit of immigration equals the marginal cost. These numbers, however, can be very difficult to determine.