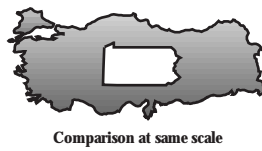


US in the WORLD

CONNECTING PEOPLE AND COMMUNITIES TO ENSURE A HEALTHY PLANET



Comparison at same scale

Pennsylvania
Area: 45,308 sq. miles
Population: 12.0 million

Turkey
Area: 300,948 sq. miles
Population: 63.7 million



Largest urban areas by population (1995): Istanbul (7,911,000), Ankara (2,846,000), Izmir (2,052,000)

Largest metropolitan areas by population (1996): Philadelphia (4,952,929), Pittsburgh (2,379,411), Scranton-Wilkes-Barre-Hazleton (628,073)

Rivers nourish communities and civilizations. Pennsylvania, nicknamed the “birthplace of America,” and Turkey, nicknamed the “cradle of civilization,” have both relied on and abused their famous water resources. Philadelphia’s Delaware River, like the three rivers of Pittsburgh, provides transportation, industrial activity, agriculture, and drinking water. Similarly, the Susquehanna River, one of the largest U.S. watersheds, supplies more than 50 percent of the freshwater to the Chesapeake Bay. The Tigris and Euphrates rivers supported the ancient Mesopotamian civilizations and remain vital to modern Turkey, which is almost surrounded by the Mediterranean Sea, the Black Sea, the Sea of Marmara, and the Aegean Sea. Yet these waters have been made to carry industrial, agricultural, and residential wastes that compromise their appearance and their health.

Pennsylvania and Turkey are, at first sight, quite different. Pennsylvania’s labor force is mostly engaged in services and industry, while 44 percent of Turkey’s labor force is in agriculture, though the country is industrializing and opening to European and world markets. Pennsylvanians have 10 times the average income and use more than 10 times as much energy as Turks. Only one-half of Turkish girls attend secondary school (three-quarters of boys do), and one-fifth of the population lacks access to safe drinking water. Turkey is a secular Islamic society; in Pennsylvania, non-Christians are a small minority.

While culturally and historically different, Pennsylvania and Turkey share common environmental problems. Both have lands rich in minerals and timber. Coal, oil, limestone, and lumber have helped make Pennsylvania a wealthy state, but its iron and steel

industries have declined, and a more diversified manufacturing and service economy is emerging. Turkey also possesses large coal, iron ore, sulfur and other mineral deposits, and its textile, chemical, tourist, and other industries are well established. As its industries expand, Turkey is experiencing some of the same pollution problems as Pennsylvania, particularly acidic runoff from mines and air pollution from coal-burning factories and power plants.

Water and energy are the most critical resource issues. Pennsylvania’s rivers flow into the Mississippi, the Atlantic, and two of the Great Lakes, and support major cities. In the past, industrial and municipal pollution along Pennsylvania’s eastern Delaware River would sometimes blacken the river and kill fish. Philadelphia (like Pittsburgh) has lost population for some years, but its population is still a

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PENNSYLVANIA

Demographic and Health Trends

■ Since 1990, Pennsylvania's population has grown from 11.9 million to 12.0 million. It is one of the slowest growing states in the country.

■ The "Keystone State" had a net loss of 4,200 persons between 1995 and 1996. Pennsylvania's gain from natural increase (births minus deaths) and net immigration could not offset the migration of 40,000 persons to other states.

■ Pennsylvania has one of the highest concentrations of seniors in the nation. About 16 percent of Pennsylvanians are over age 64.

■ Unlike Florida, which has had a large influx of older Americans,

Pennsylvania's high concentration of seniors has been triggered by the migration of younger residents to other states.

■ Pennsylvania's two largest cities, Philadelphia and Pittsburgh, have steadily lost population since 1950. Since 1990 alone, Philadelphia has declined 6 percent.

■ Some Pennsylvania counties have grown in the 1990s due to an expanding high-tech and service economy. Bucks and Chester counties in suburban Philadelphia have grown 6 percent and 8 percent respectively.

Natural Resources and Wildlife Issues

■ The high sulfur content of Pennsylvania coal, which makes it difficult to meet the Clean Air Act standards, has contributed to the decline of Pennsylvania's once dominant coal industry.

■ Polluted drainage as the result of past coal mining activities contributes to the degradation of over 2,400 miles of streams and rivers. Sediment is the single largest pollutant by volume.

■ Current patterns of development (such as wetland drainage and the building of large-lot subdivisions) threaten plants, animals, and people who depend on the Delaware River watershed.

■ Among Pennsylvania's 15 endangered and threatened species are the bald eagle, American peregrine falcon, piping plover, and three species of pearl mussel.

Socioeconomic Factors

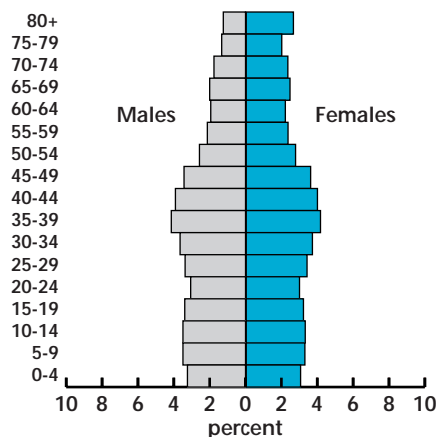
■ Nearly 10 percent of Pennsylvania's water use is for industrial purposes, compared with 6 percent for the nation.

■ With the decline of the coal, steel, and railroad industries, Pennsylvania's economy has diversified. It now ranks among the top ten states in re-

search and development expenditures.

■ Between 1992 and 1996 the number of businesses in Pennsylvania increased, with the service sector adding the most jobs. Manufacturing, wholesale trade, and mining—three of the 10 major industry sectors—all lost jobs.

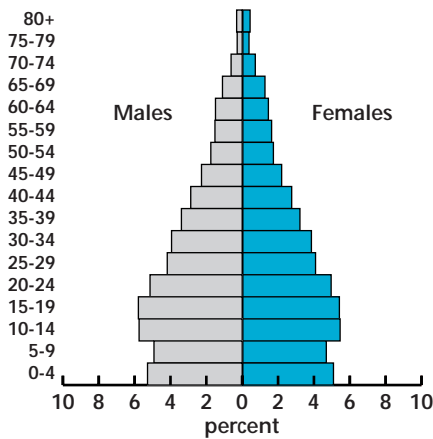
POPULATION BY AGE AND SEX



PENNSYLVANIA FACTS

Population, 1997: 12.0 million
Projected population, 2025: 12.7 million
Annual growth rate: -0.2%
Doubling time (at current rate): n.a.
Average number of children per woman: 1.9
Infant deaths per 1,000 live births: 7.8
Life expectancy: 72 (male), 79 (female)
Persons per square mile: 268
Percent urban: 69
Endangered/threatened animals: 12 species
Endangered/threatened plants: 3 species
Percent of land protected: 6
Wetlands loss, 1780-1980: 56%
Daily water use per capita: 708 gallons
Water use for domestic purposes: 20%
Water use for agriculture: 1%
Water use for industry: 10%
Water use for energy production: 69%
Cropland per capita: 0.6 acres
Energy use per capita: 55.5 barrels of oil equiv.
Persons per motor vehicle: 1.4
Adults who are high school graduates: 82%
Elected officials who are women: 11%
Labor force in agriculture: 2%
Labor force in industry: 21%
Labor force in services: 77%
Gross State Product, 1994: \$24,417 per capita

POPULATION BY AGE AND SEX



TURKEY FACTS

Population, 1997: 63.7 million
Projected population, 2025: 89.9 million
Annual growth rate: 1.6%
Doubling time (at current rate): 43 years
Average number of children per woman: 2.7
Infant deaths per 1,000 live births: 47
Life expectancy: 65 (male), 70 (female)
Persons per square mile: 214
Percent urban: 63
Threatened animals: 70 species
Threatened plants: 1,827 species
Percent of land protected: 1.4
Wetlands loss, through 1980s: n.a.
Percent with access to safe water: 80
Percent with adequate sanitation: n.a.
Daily water use per capita: 422 gallons
Water use for domestic purposes: 24%
Water use for agriculture: 57%
Water use for industry: 19%
Cropland per capita: 1.2 acres
Energy use per capita: 5.4 barrels of oil equiv.
Persons per motor vehicle: 16
Percent of girls in secondary school: 48
Percent of boys in secondary school: 74
Women as % of national legislature: 2
Labor force in agriculture: 44%
Labor force in industry: 22%
Labor force in services: 34%
GDP per capita, 1995: US\$2,684

Demographic and Health Trends

- Turkey has by far the largest population in Western Asia.
- The average number of children per woman in Turkey is 2.7, much lower than the average for Western Asia—4.1 children per woman.
- Turkey is growing at an annual rate of 1.6 percent, compared with 2.6 percent in the early 1980s. At this rate, Turkey's population in-

creased by about 1 million people in 1997.

- A projected 87 percent of Turks will live in cities by 2020, up from 63 percent in 1997.
- The Turkish government considers population growth to be too high and provides family planning services as a means to improve family health and welfare and to reduce fertility.

Natural Resources and Wildlife Issues

- In the sea near Istanbul, a Filipino freighter carrying thousands of sheep sank after crashing into a Lebanese ship. The decomposition of the animals will generate methane gas and consume the water's oxygen.
- Rivers are polluted at dangerous levels from the release of chemicals, detergents, mercury, and untreated sewage. The Sea of Marmara is contaminated with mercury.
- Rapid industrial development, population growth, and increasing urbanization have led to a huge demand for energy. A 200 percent to 300 percent increase in the demand for energy is expected in the next 10 to 15 years.

■ Air pollution is a major urban problem. The air surrounding Istanbul contains high levels of sulfur dioxide and lead.

■ Each year forest land is converted to farming and a larger amount is converted to grazing. In addition, forest fires destroy several thousand acres annually. As a result, the ability of the land to retain water is diminished.

■ Threatened species in Turkey include the wild goat, Dalmatian pelican, greater spotted eagle, and the white-headed duck. Of the country's 8,472 known plant species, 22 percent are threatened.

Socioeconomic Factors

- The largest share of Turkey's population currently works in agriculture, making the country food self-sufficient. The role of agriculture in the economy, however, is decreasing rapidly.
- Employment is growing in manufacturing and industrial sectors.

■ Turkey's annual average rate of inflation between 1985 and 1995 was 65 percent.

■ More than 1 million Turks work outside of the country, especially in Western Europe. By far the largest proportion work in Germany. Worker's remittances are an important source of foreign exchange.

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heavy load for the Delaware. After a \$1 billion investment by Philadelphia in the 1980s and 1990s, and efforts by industries and towns in the watershed, the Delaware is now one of the most improved American rivers.

Turkey's major cities have similar problems. Istanbul, with 7.9 million people, straddles the narrow Bosphorus Straits. Efforts to control urban growth and to protect the Bosphorus from heavy shipping traffic have been unsuccessful. In the rapidly growing Mediterranean coastal city of Antalya, the challenge of keeping pace with sanitation and water needs is important for public health and for the tourist industry.

Water use in Turkey has an international dimension. Turkey draws heavily on the Euphrates, for example, for hydroelectric energy and for irrigation. Turkey plans to divert more water in the near future, reducing the flow that now reaches neighboring Arab countries downstream. International cooperation among the countries that share these river waters is difficult at best. Similarly, five countries now share the Black Sea, and, like Pennsylvania and other Great Lakes states and provinces, these countries must cooperate to regulate and preserve the resource.

Water power produces most of

Turkey's electricity, but the country is counting on a natural gas pipeline as gas and oil fields are tapped in the Caspian Sea to its east. But Turkey's government is uneasy about a planned increase in seagoing petroleum shipments passing through the Bosphorus.

Energy solutions in Pennsylvania have been controversial as well: Coal is the "dirtiest" fuel for generating electricity, but Pennsylvania's nine nuclear power plants are not universally accepted as a safe substitute.

Responding to Challenges

Pennsylvania has instituted multipartner fencing programs aimed at improving water quality along stream banks. One program focuses on accelerating the state's efforts in the Susquehanna or Potomac River basins by working with landowners in existing livestock operations to reduce soil erosion and nutrient deposition caused by livestock. The Department of Environmental Protection oversees the project in collaboration with the Alliance for

Chesapeake Bay, the Chesapeake Bay Foundation, Trout Unlimited, and country conservation districts.

In Turkey, The World Bank is helping finance sewage treatment and facilities for the Mediterranean tourist city of Antalya. Its Global Environ-

People in Pennsylvania and Turkey, along with all other living creatures, need clean and healthy air, water, and land, and a stable climate. But as people strive to meet these fundamental needs and improve their lives, they make demands on Earth's resources—and leave footprints. No species demands as much and leaves as many footprints as humans do. The number of people on the planet has a direct impact on the environment and how resources are used. But the level of consumption and the ways in which natural resources are used also directly affect the health of the planet—locally, regionally, globally.

No matter where one lives, the activities of *all* humans will ultimately determine the well-being of *all* humans.

ment Facility has lent Turkey \$6.2 million for a program to phase out ozone-depleting substances in appliances and cooling systems, especially around Istanbul, and to carry out education on the topic around the country. The U.S. Agency for International Development does not currently support any environmental projects in Turkey. ■

DEFINITIONS: **Doubling Time:** The number of years it will take for a population to double, assuming a *constant* rate of natural increase. **Average Number of Children Per Woman:** Known as the Total Fertility Rate (TFR) or the average number of children a woman would have in her lifetime, assuming that birth rates remained constant throughout her childbearing years. **Endangered Species:** Any species in danger of extinction throughout all, or a significant portion of its habitat. **Threatened Species:** Any species likely to become endangered within the foreseeable future throughout all, or a significant portion of its habitat. **Gross Domestic Product (GDP):** The value of all goods and services produced within a nation in a given year. **Gross State Product (GSP):** The value of all goods and services produced within a state. It is the state counterpart of the nation's GDP.

SOURCES: Major sources are International Labour Organization; National Center for Health Statistics; UNICEF; U.S. Bureau of Economic Analysis; U.S. Department of Agriculture; U.S. Fish and Wildlife Service; U.S. Geological Survey; The World Conservation Union (IUCN); and World Resources Institute. For a complete list of sources, contact PRB.

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