The U.S. Economy at the Beginning and End of the 20th Century

Chartbook

December 1999

Prepared by the Joint Economic Committee
Office of the Chairman, U.S. Senator Connie Mack

Overview

The American standard of living has risen dramatically during the twentieth century. Today, the average full-time employee works about 40 hours per week rather than 60, and the average family spends just 15 percent of its income on food today, compared to 44 percent in 1900. We are producing and consuming six times more goods and services, per person, than we were in 1900. In addition, we typically live about 30 years longer today as we have successfully fought many diseases. In fact, the death rate from infectious diseases is just seven percent of what it was a century ago, when the two biggest killers were pneumonia and tuberculosis.

The United States eclipsed Britain as the world's wealthiest major nation in about 1903. America retained this leadership position throughout the century as open markets, technological advances, and waves of immigration created continual renewal and growth in our economy. Today, Americans produce over one-fifth of the world's gross domestic product (GDP), and have average incomes about 20 percent higher than the Europeans or the Japanese.

Vast demographic and industrial changes have reshaped how and where Americans live and work. The American population has more than tripled during this century, and was transformed from being 60 percent rural in 1900, to 75 percent urban today. Millions migrated to the South and West, causing these two

regions to balloon from 37 percent of the U.S. population in 1900 to 58 percent today. In addition, the country experienced a dramatic reduction in income disparities between regions as economic growth greatly boosted personal incomes in many formerly poor states.

Americans also have a much different government today than a century ago. For one thing, it is much larger - taxes account for over 29 percent of the nation's GDP today, compared to just 6 percent a century ago. In addition, the structure of government has changed. In 1900, local governments were responsible for 55 percent of all government spending. Today, the federal government is dominant, with the responsibility for 68 percent of all government spending.

This chartbook documents these and other changes by comparing graphical snapshots of the economy in 1900 to the economy today. The snapshots are arranged into six sections focusing on: America's place in the world, regional changes within the United States, our rising standard of living, the growth in government, changes in the workforce, and the growth in international trade.

Prepared by Chris Edwards, Senior Economist to the Chairman,
with the assistance of David Landau, JEC intern.

This staff report reflects the views of the authors only. These views do not necessarily reflect those of the Joint Economic Committee, its Chairman, Vice Chairman, or any of its Members.

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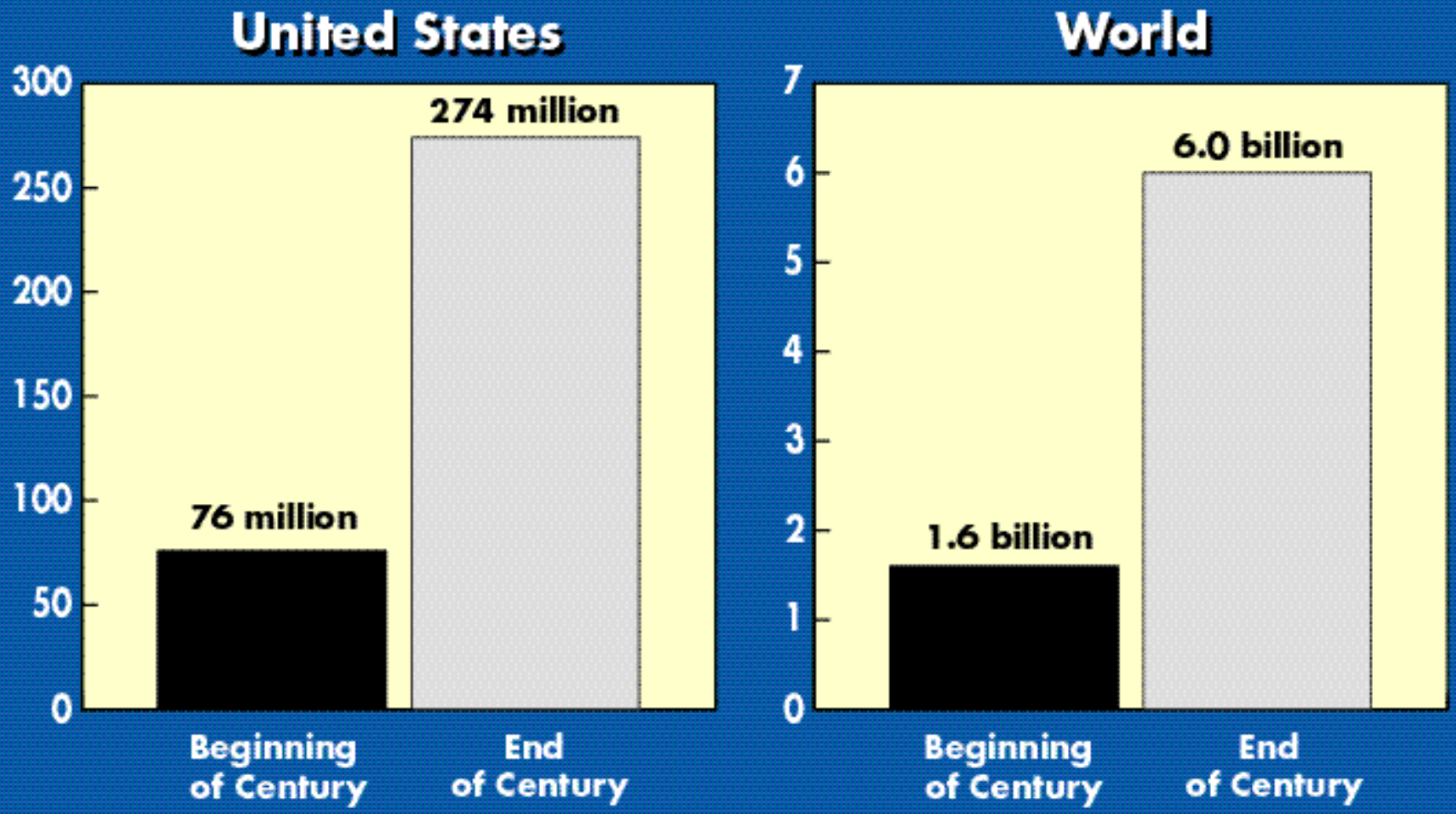
Section 1:

United States and the World

Population of the United States and the World



Sources: U.S. Bureau of the Census (All Census data in this report are souced from either the *Historical Statistics of the United States*, the *Statistical Abstract*, or the Census Web page at <www.census.gov>). Exact years in this chart are 1900 and 2000 (projected).

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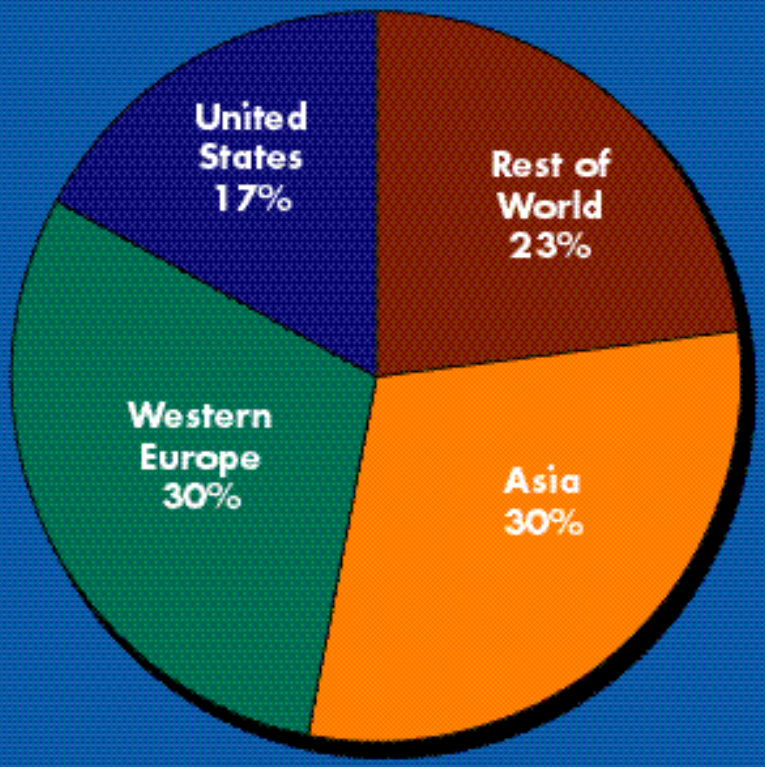
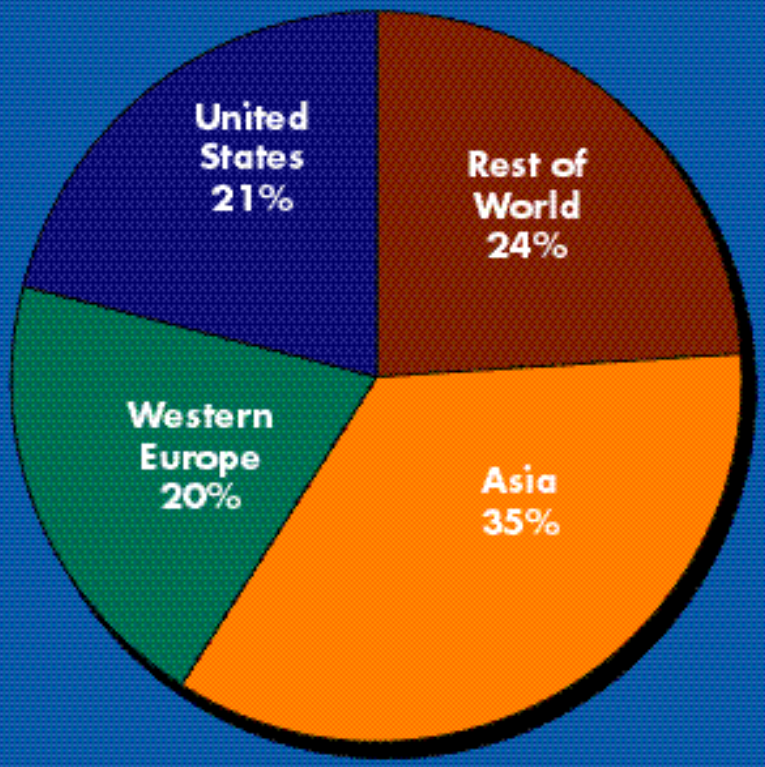
U.S. GDP as a Share of World GDP



Beginning of Century



End of Century

Sources: JEC calculations based on *Monitoring the World Economy* 1820-1992, Angus Maddison for the OECD, 1995. Western Europe includes 12 countries; Asia includes 11 countries. Exact years in chart are 1900 and 1992.

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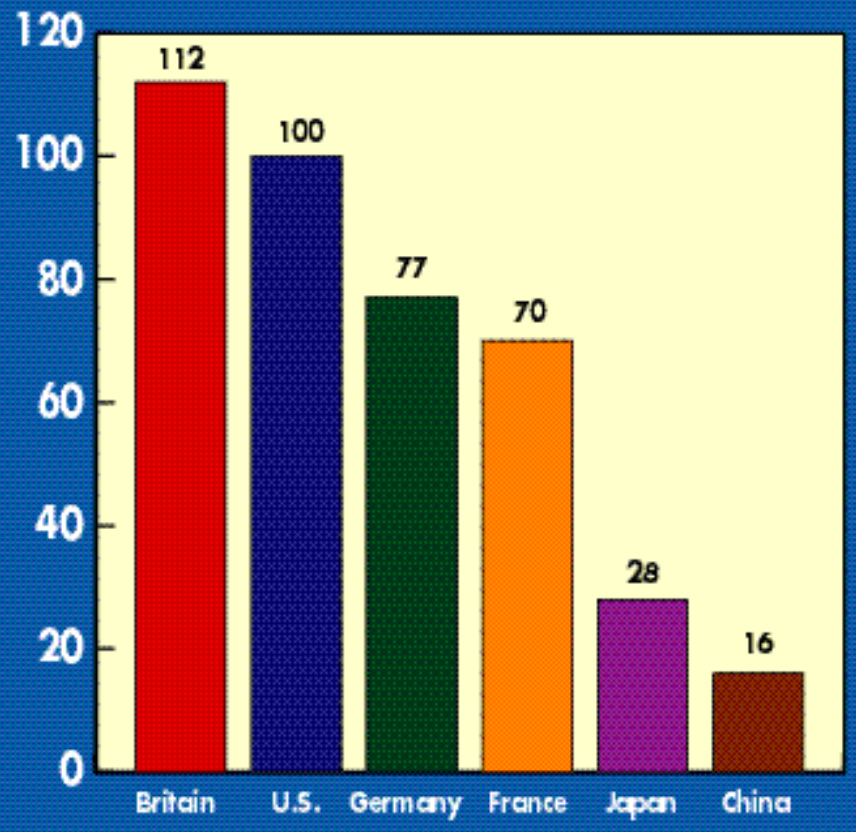
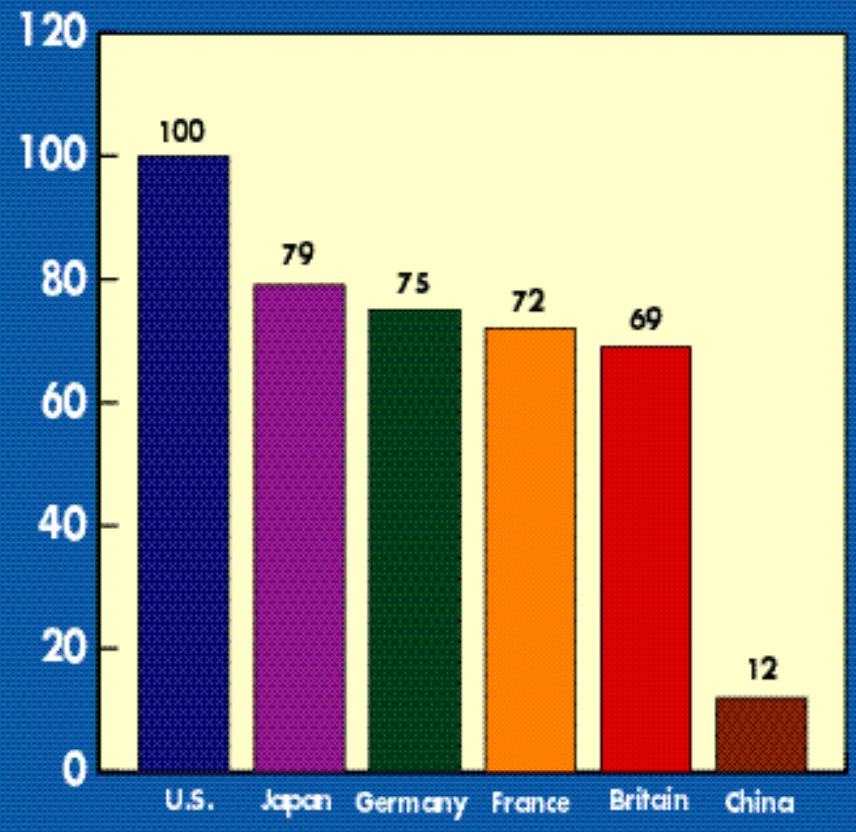
Relative Income Levels of Major Countries

Per-Capita GDP Relative to the United States



Beginning of Century



End of Century

Sources: JEC calculations based on *Monitoring the World Economy 1820-1992*, Angus Maddison, 1995 (beginning of century), and OECD (end of century) except China which is sourced from the *CIA World Factbook 1999*. All figures at purchasing power parities scaled to the U.S. value. Exact years are 1900 and 1998.

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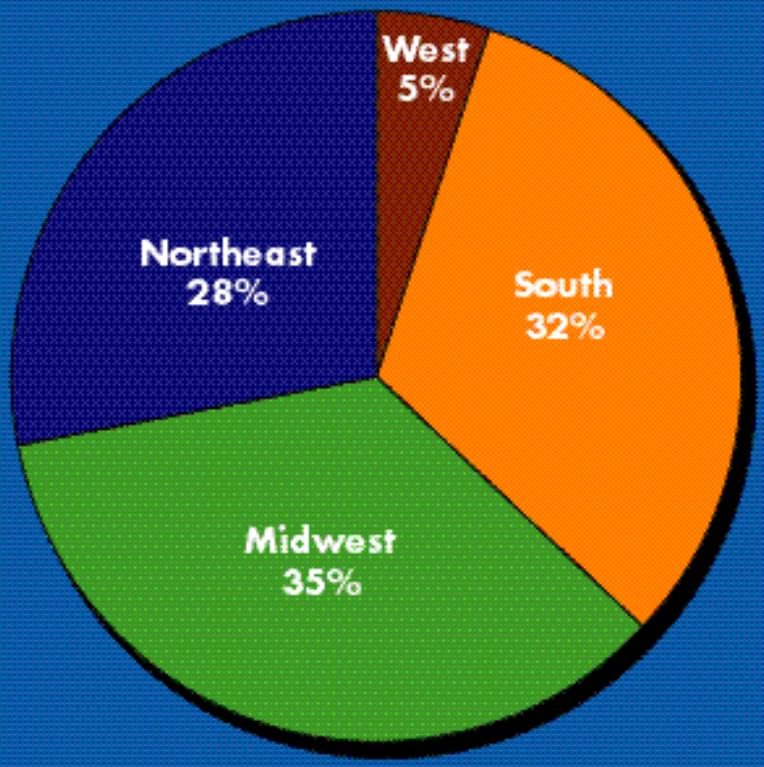
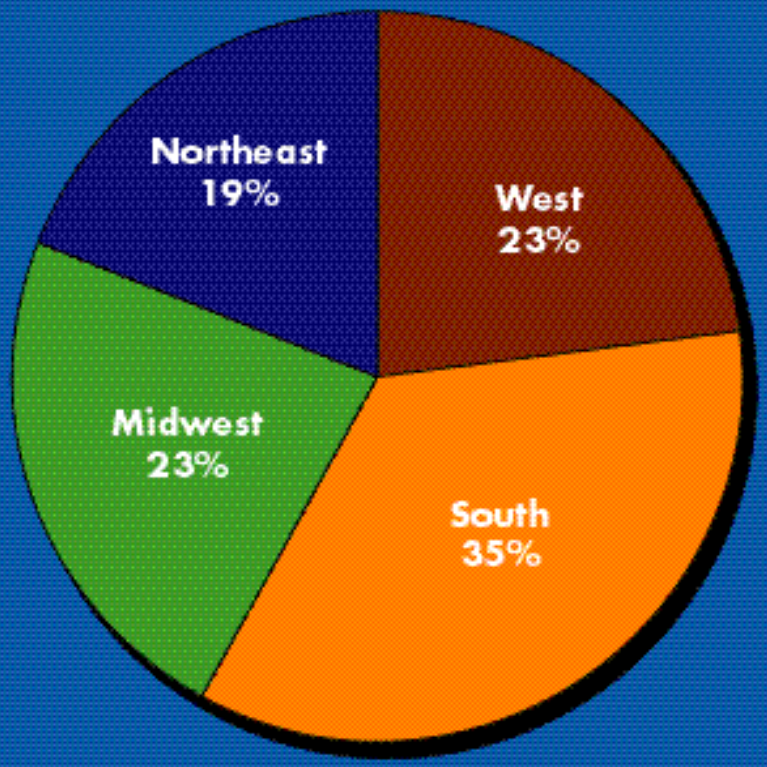
Section 2:

The Reshaping of America

U.S. Population By Region



Beginning of Century



End of Century

Sources: Beginning and end of century from Bureau of the Census.
Exact years are 1900 and 1998.

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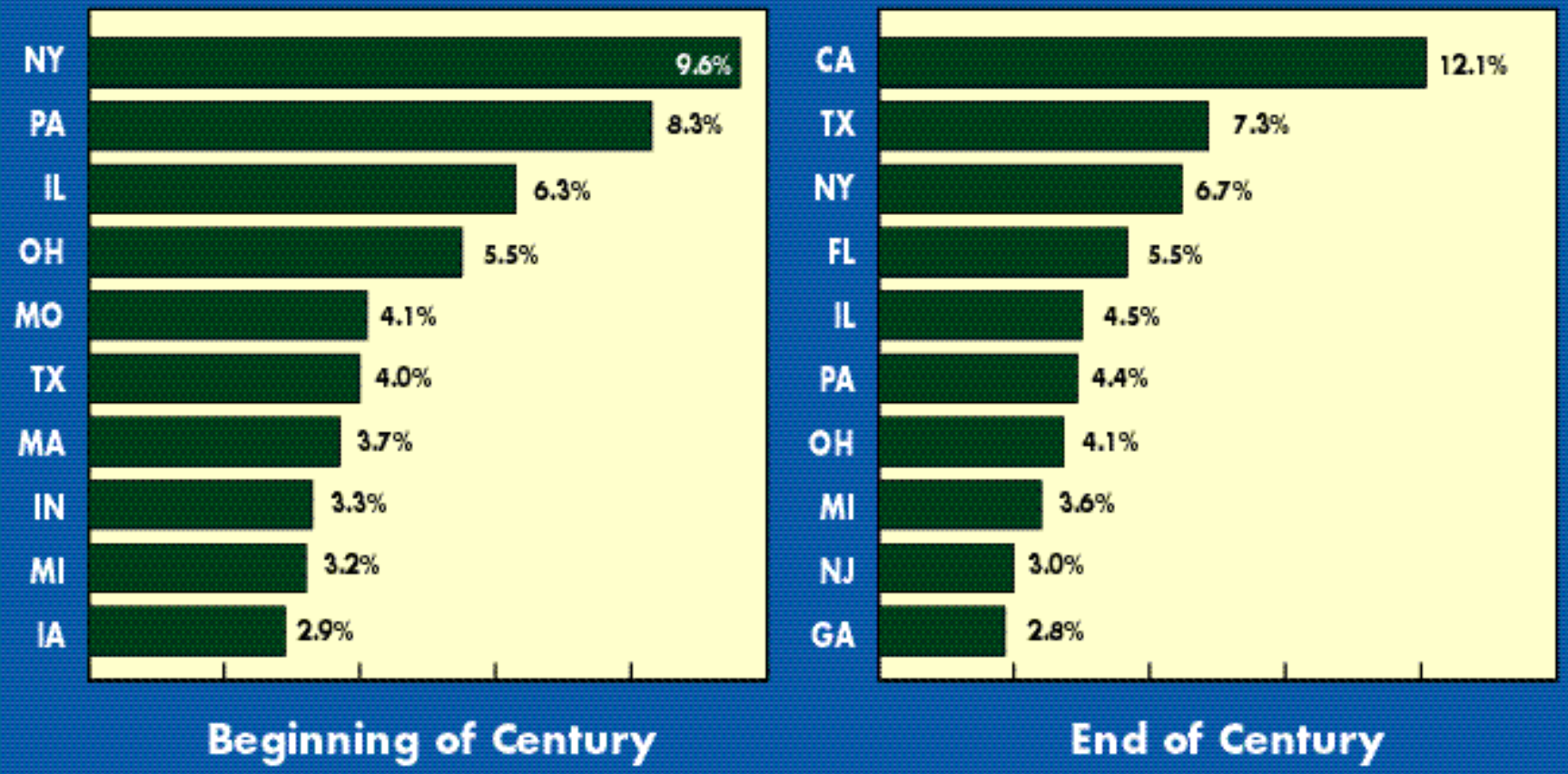
The Ten Most Populous States

Each State as a Percentage of Total U.S. Population



Sources: Beginning and end of century from JEC calculations based on Bureau of the Census data.
Exact years in chart are 1900 and 1998.

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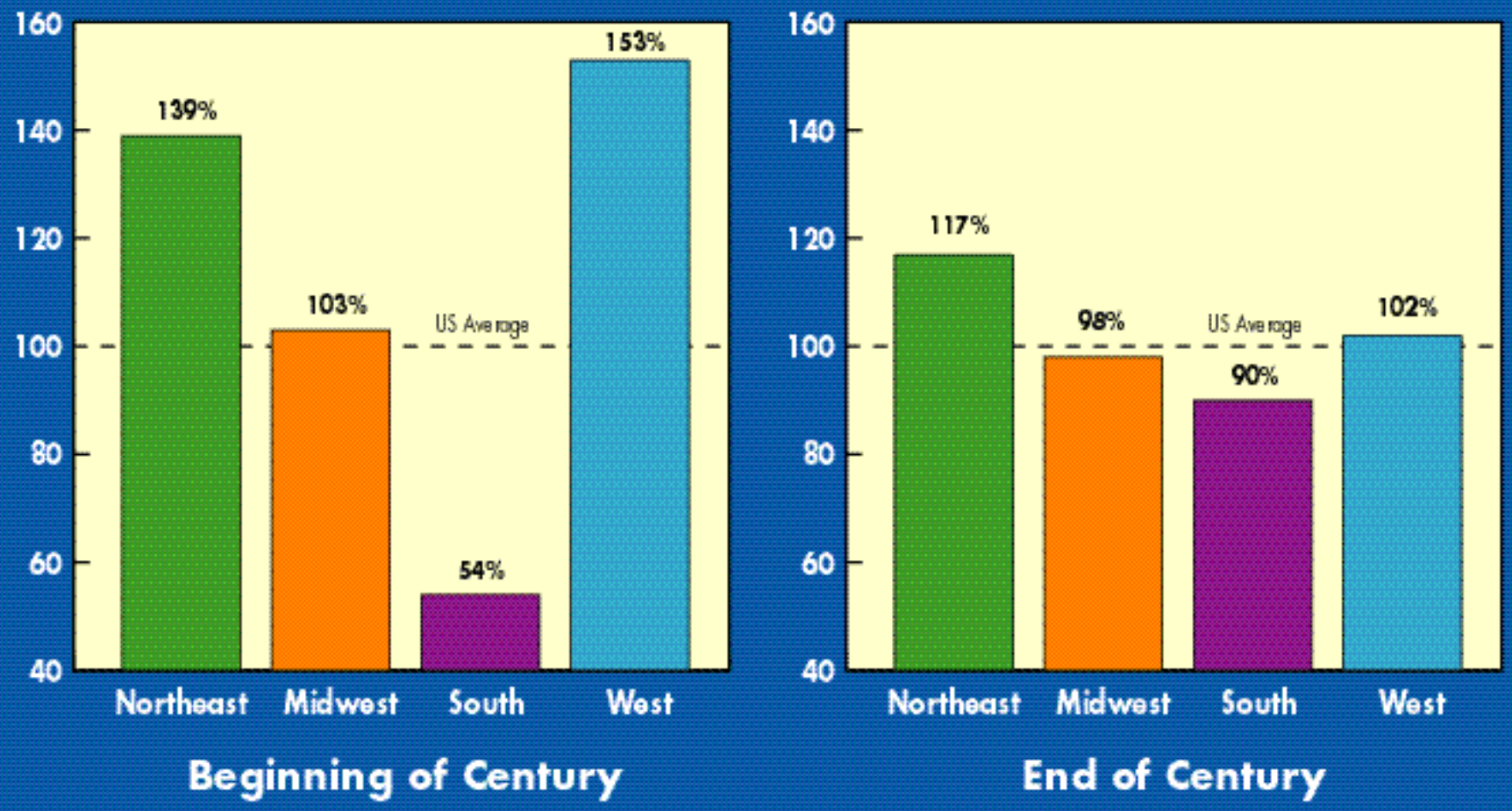
Decline in Regional Income Disparity

Per-Capita Income as a Percentage of U.S. Average



Sources: Beginning of century from "U.S. Regional Growth and Convergence, 1880-1980," *The Journal of Economic History*, K. Mitchener and I. McLean, 1999. End of century from JEC calculations based on Bureau of Economic Analysis data. Exact years in chart are 1900 and 1998.

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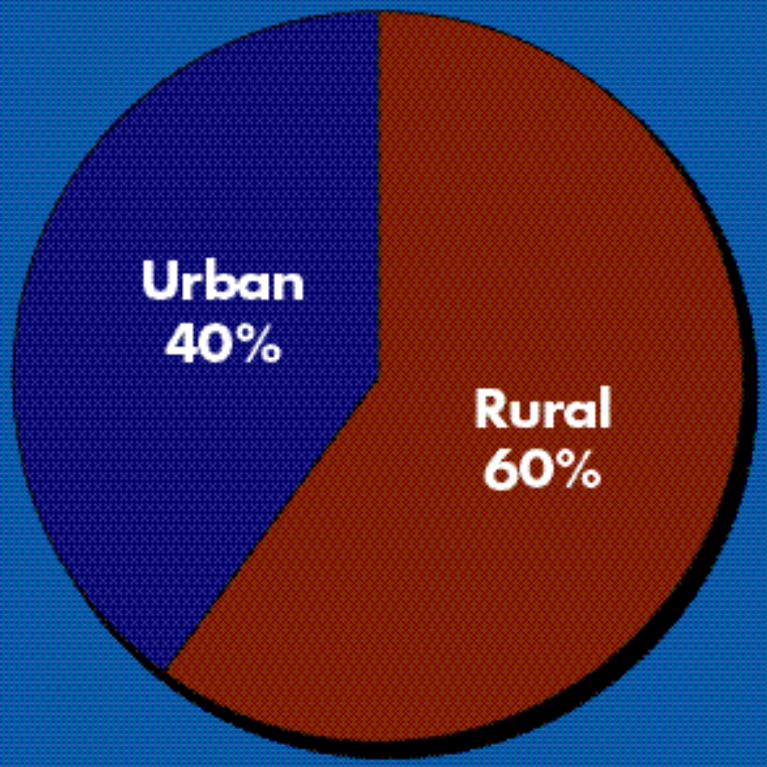
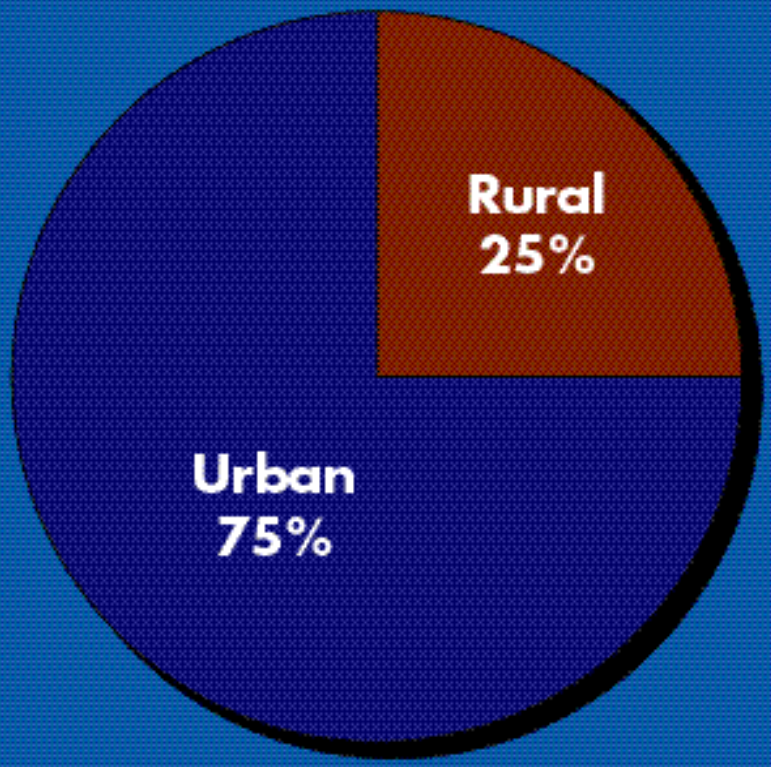
U.S. Population Living in Urban and Rural Areas



Beginning of Century



End of Century

Sources: Beginning and end of century from Bureau of the Census.
An urban place is defined as one with more than 2,500 residents.
Exact years are 1900 and 1990.

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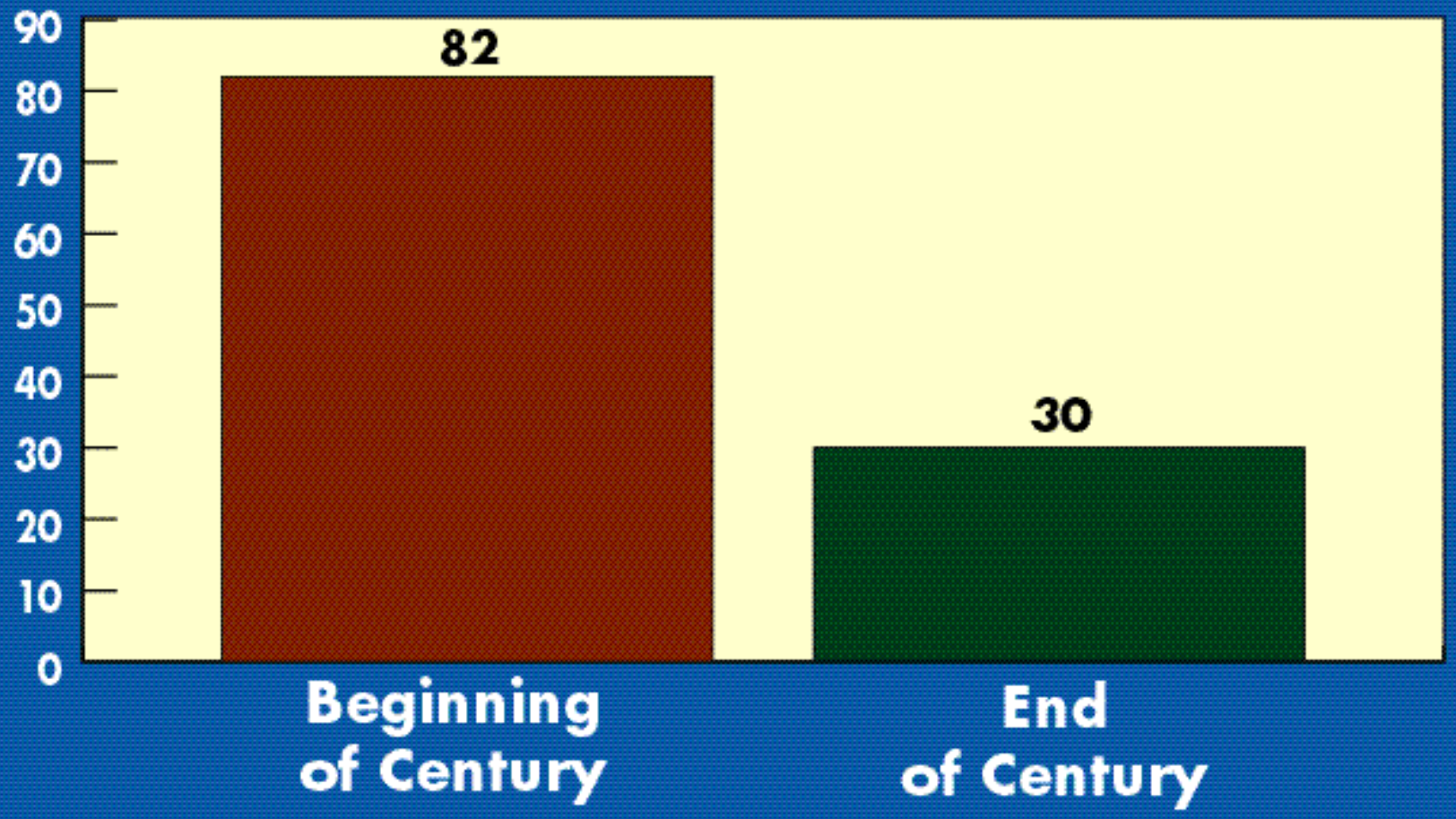
Immigration into the United States

Annual Immigration Per 10,000 U.S. Population



Sources: Beginning of century from Bureau of the Census.
End of century from Immigration and Naturalization (INS) Web page.
JEC calculations based on five-year averages 1900-4 and 1994-8.

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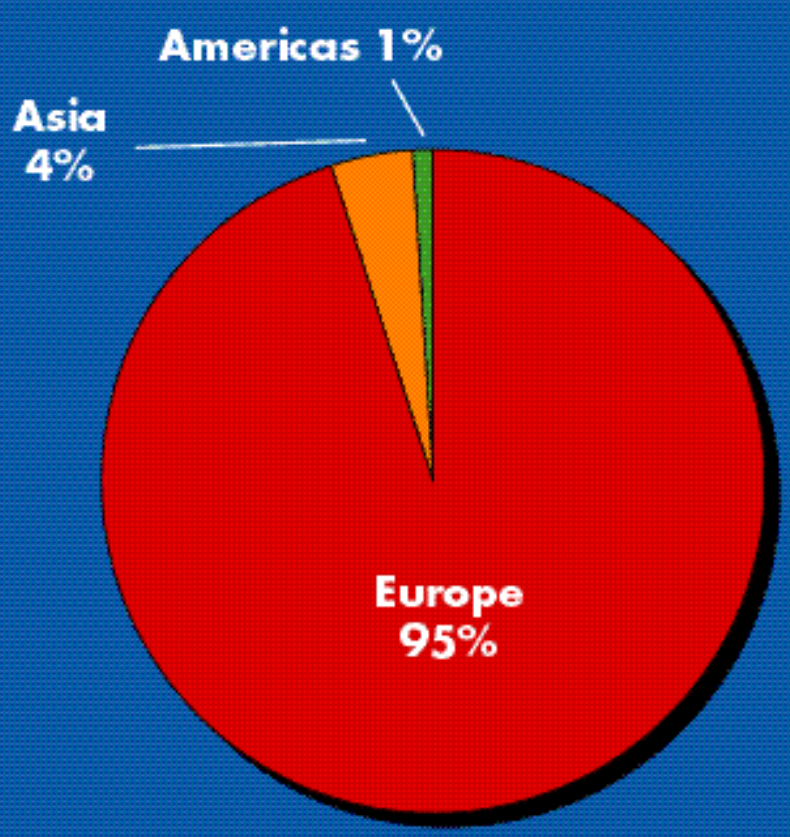
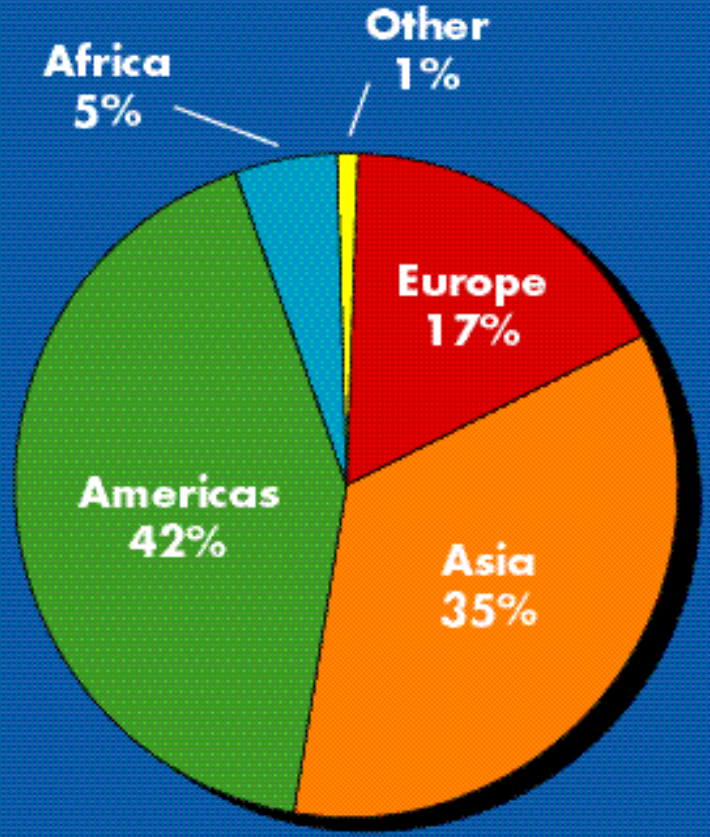
U.S. Immigration by Region of Origin



Beginning of Century



End of Century

Sources: Beginning of century from Bureau of the Census. End of century from INS Web Page. JEC calculations based on five-year averages of 1900-4 and 1994-8.

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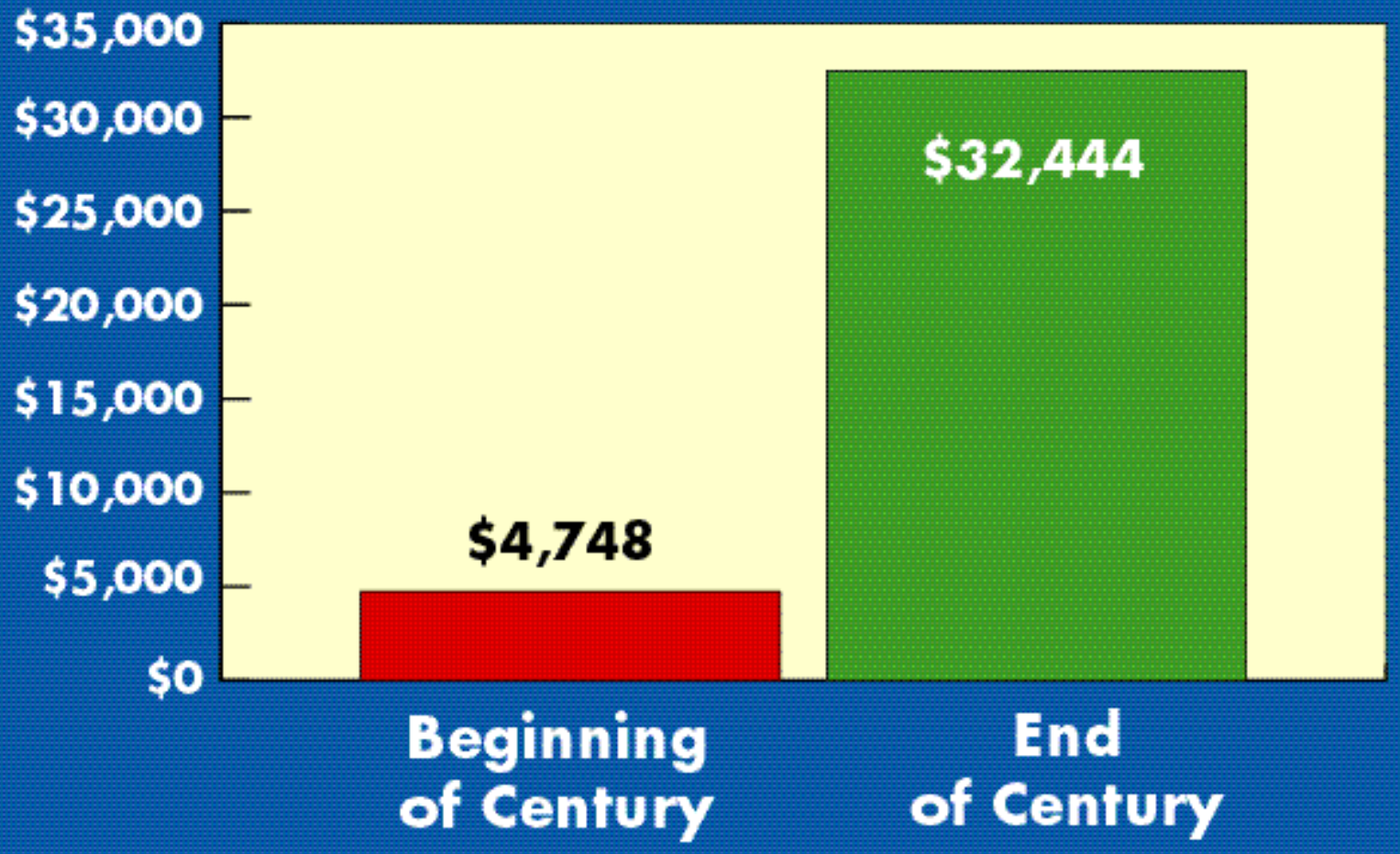
Section 3:

Our Rising Standard of Living

Average Income Levels

U.S. Per-Capita GDP in 1998 Dollars



Sources: Beginning of the century estimated by JEC based on Bureau of Census data.
End of century based on Bureau of Economic Analysis (BEA) data for 1998.
Exact years in chart are 1900 and 1998.

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Work Time Needed for the Average Worker to Buy Selected Products

Product	Beginning of Century	End of Century
Half gallon of milk	56 minutes	7 minutes
One-pound loaf of bread	16 minutes	3.5 minutes
Hershey chocolate bar	20 minutes	2.1 minutes
Three-pound chicken	2 hours 40 minutes	14 minutes
Pair of Levis jeans	9 hours 42 minutes	3 hours 24 minutes
100 kilowatt hours of electricity	107 hours 17 minutes	38 minutes
3 minute coast-to-coast phone call	90 hours 40 minutes	2 minutes

Source: *Myths of Rich and Poor*, Michael Cox and Richard Alm, 1999.
Items are for various years near the beginning and end of the century.

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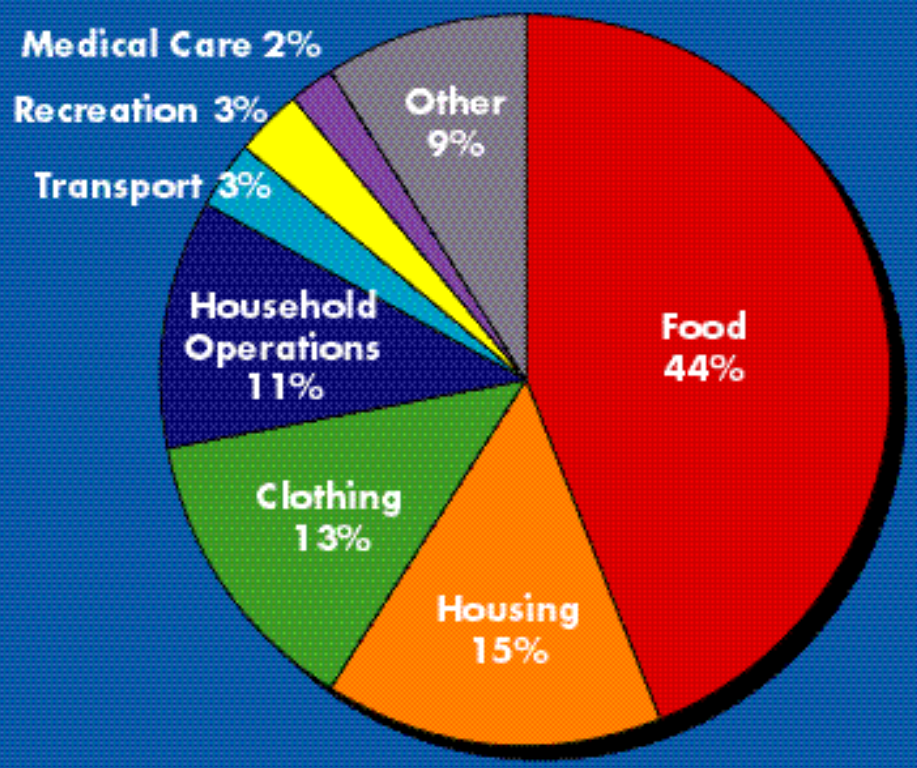
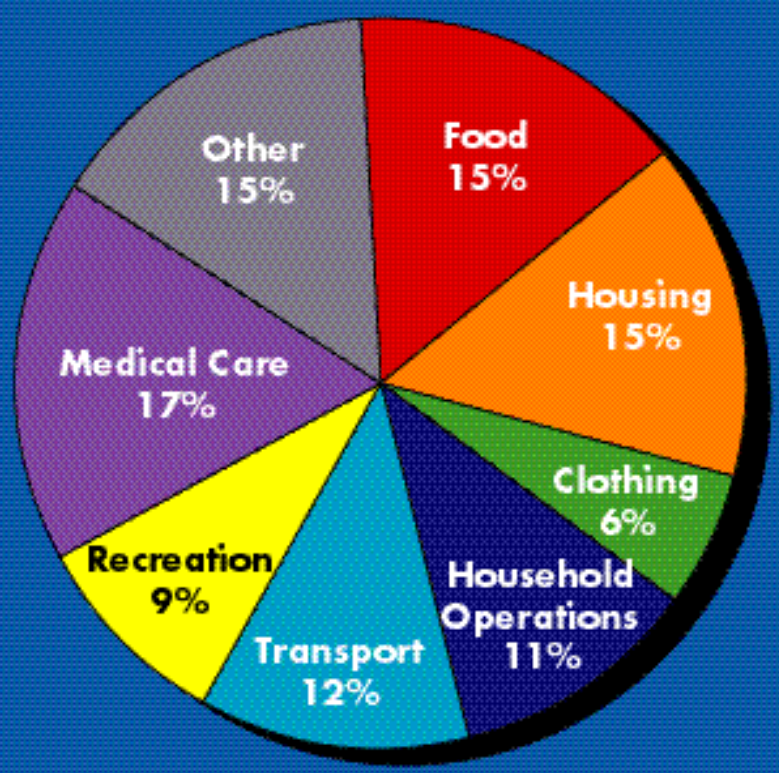
The Average American's Personal Consumption Expenditures by Item



Beginning of Century



End of Century

Sources: Beginning of century from *Consumer Expenditures*, Stanley Lebergott, 1996.
End of century form Bureau of Economic Analysis.
Exact years in chart are 1900 and 1997.

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American Housing and Appliances

Percent of Families...	Beginning of Century	End of Century
Owning their own home	47%	66%
One or fewer persons per room	48%	97%
With running water	24%	99%
With a flush toilet	15%	99%
With electricity	3%	99%
With a telephone	5%	94%
With an automobile	1%	83%

Sources: Beginning of century from *The American Economy*, Stanley Lebergott, 1976.
End of century from *American Housing Survey*, Bureau of the Census.
Years shown are 1900 and mid-1900s.

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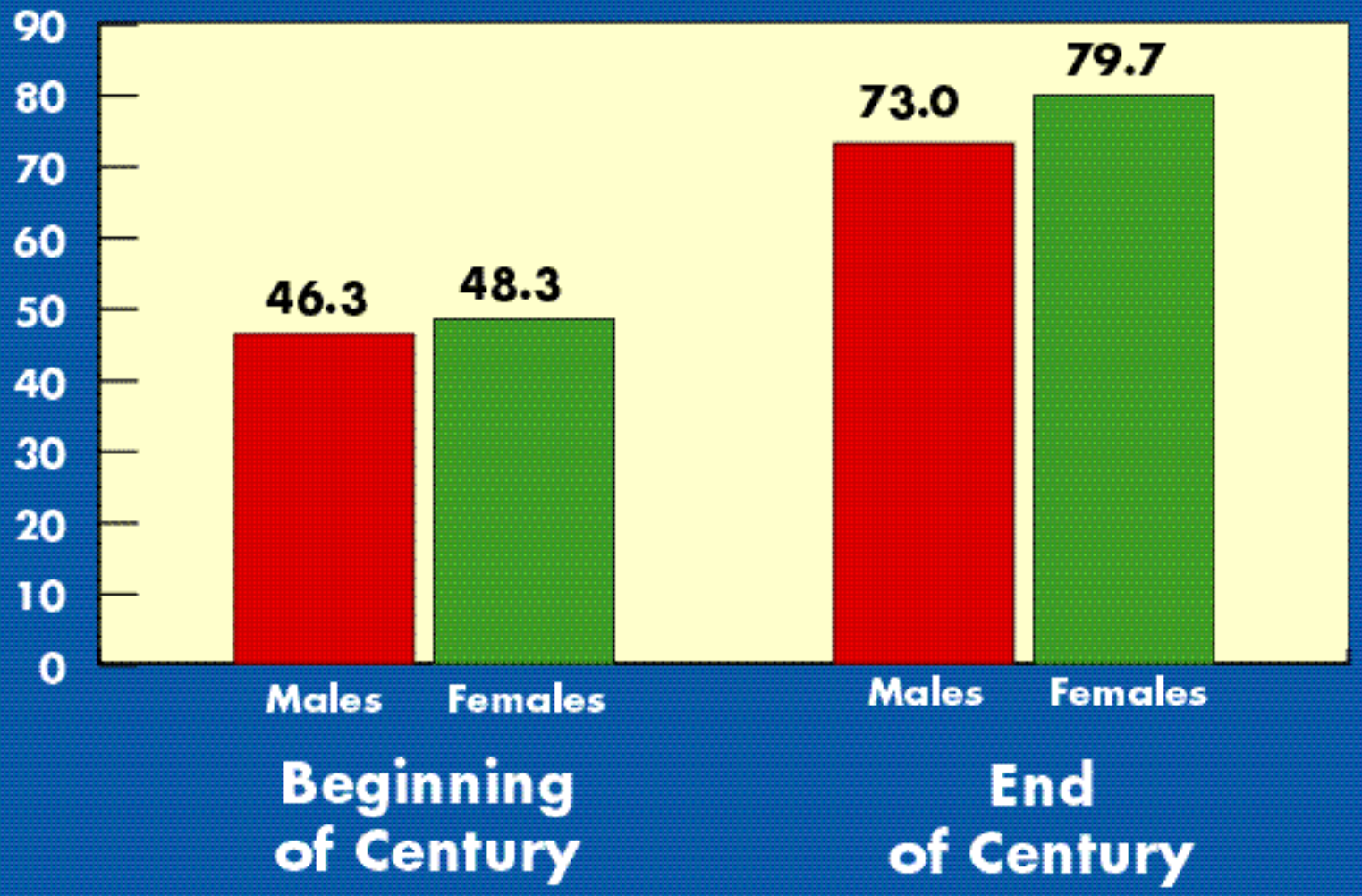
Average Life Expectancy at Birth



Sources: Beginning and end of the century from Bureau of Census.
Exact years in chart are 1900 and 2000 (projected).

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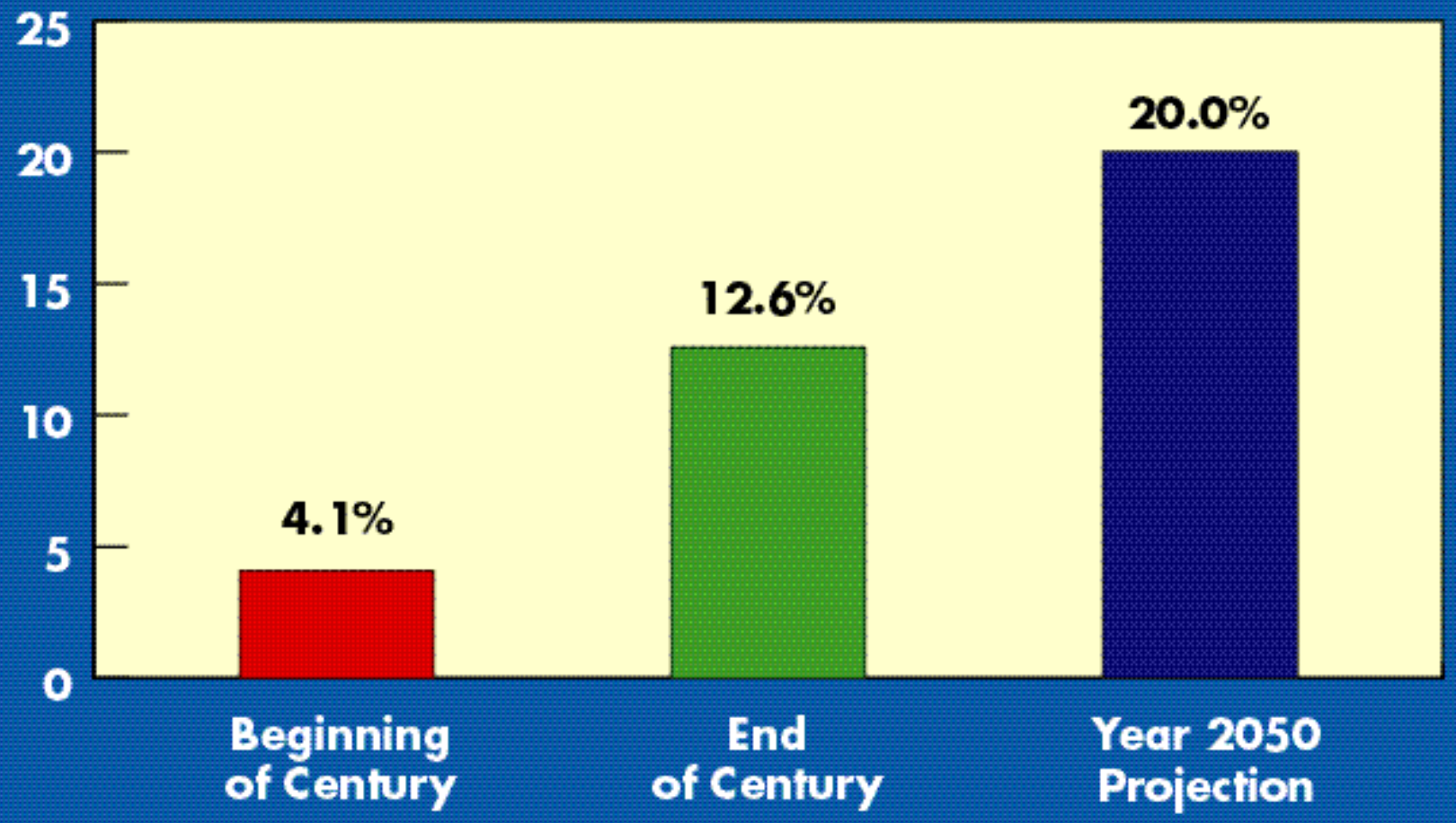
Share of the Population Age 65 and Older



Sources: Bureau of Census. Exact years are 1900, 2000, and 2050 (projected).

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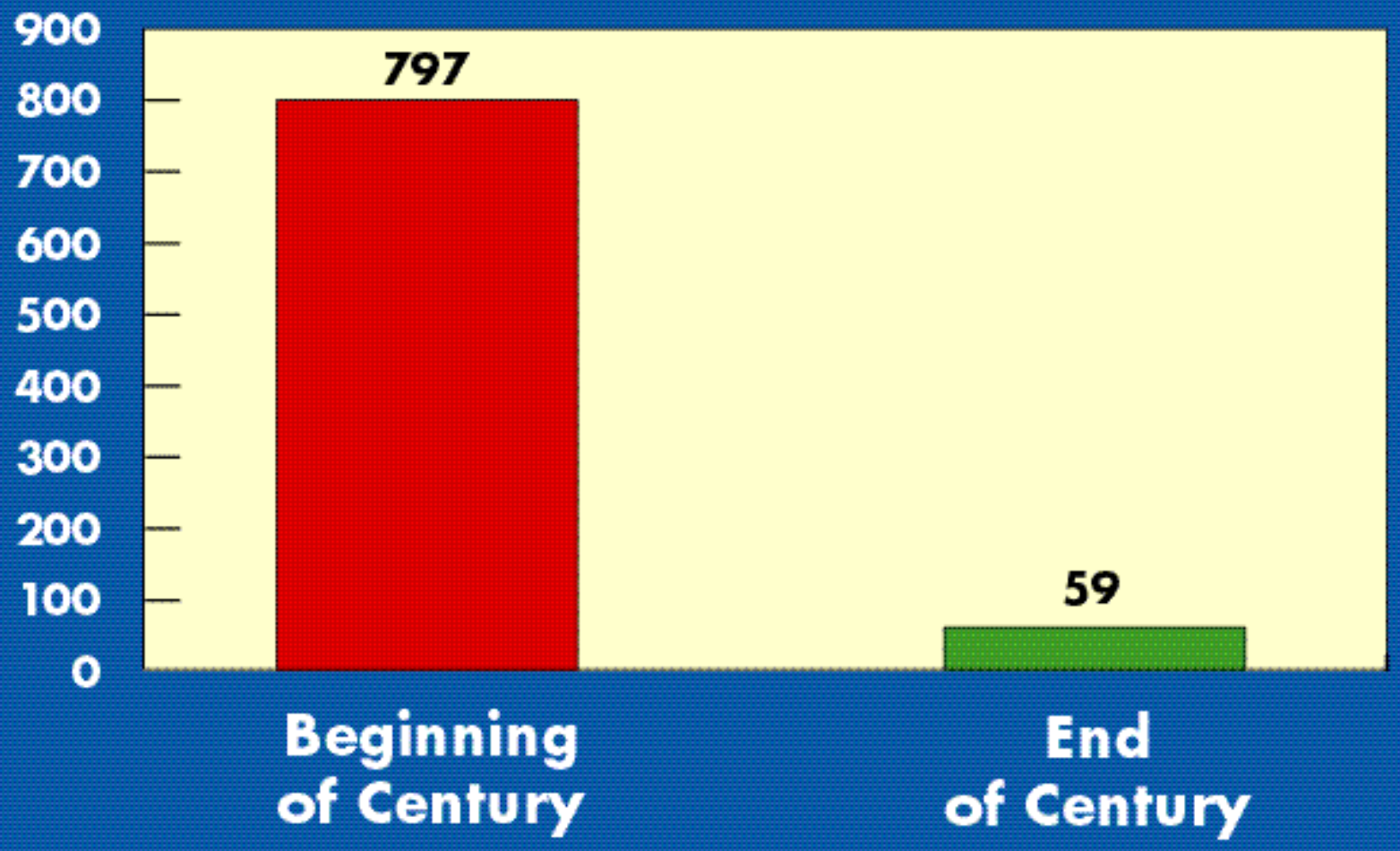
Death Rate From All Infectious Diseases

Death Rate per 100,000 Population



Sources: "Trends in Infectious Disease Mortality in the United States During the 20th Century", G.L Armstrong in *Journal of the American Medical Association*, 1999. Exact years in chart are 1900 and 1996.

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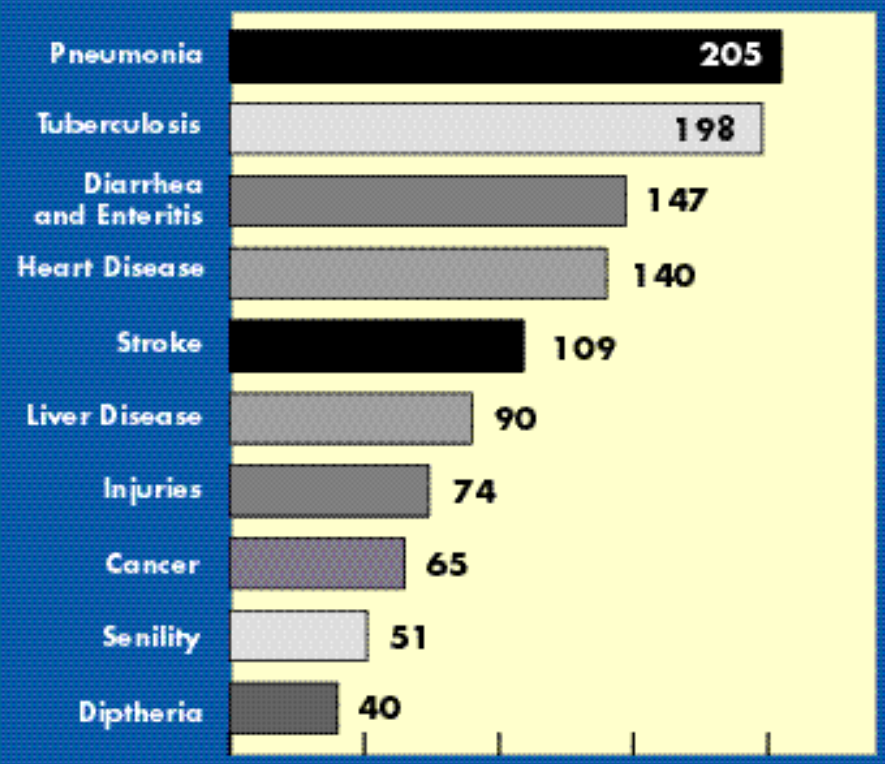
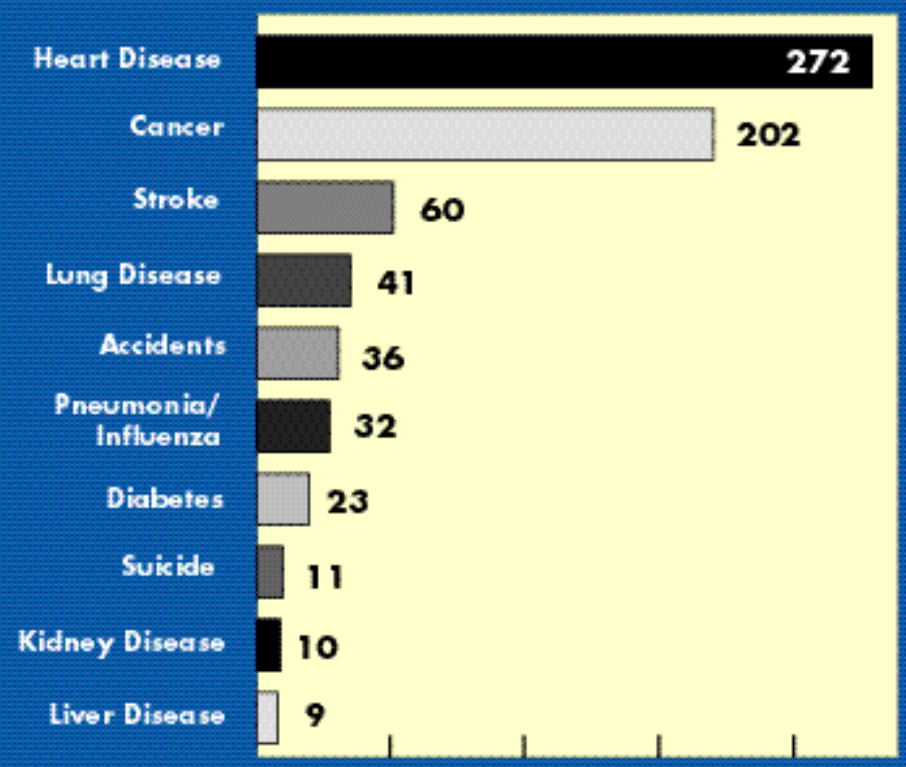
The Top Ten Causes of Death

Death Rates per 100,000 Population



Beginning of Century



End of Century

Sources: Beginning and end of century based on Centers for Disease Control data recieved by fax and CDC Web page at <www.cdc.gov>.
Exact years are 1900 and 1997.

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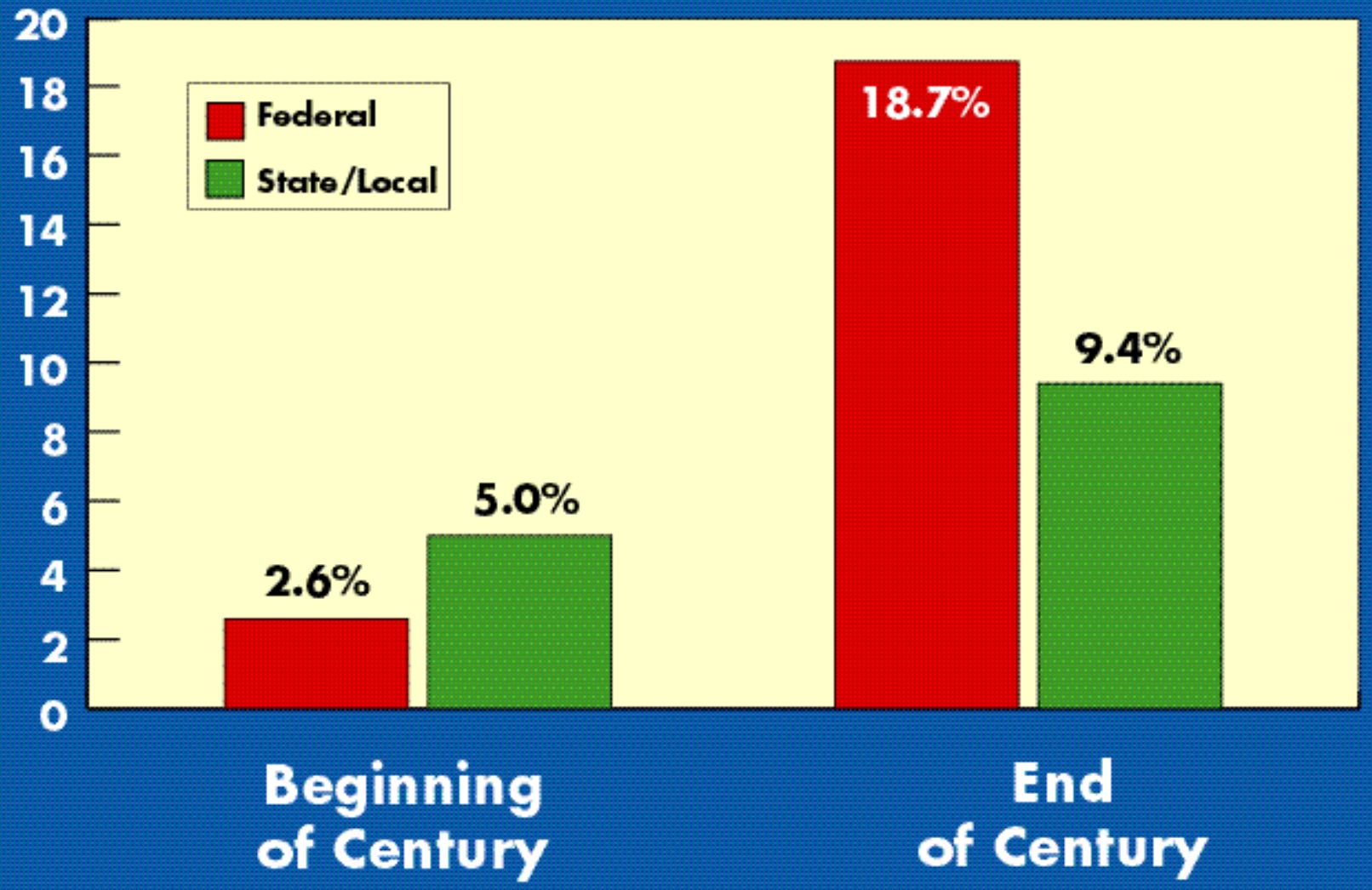
Section 4:

Growth In Government

Government Expenditures as a Percentage of GDP



Sources: JEC calculations based on Department of Commerce data for 1902 and 1998, except end of century federal which is based on federal budget data for fiscal 1999. Intergovernmental flows are treated as expenditures of the disbursing level of government.

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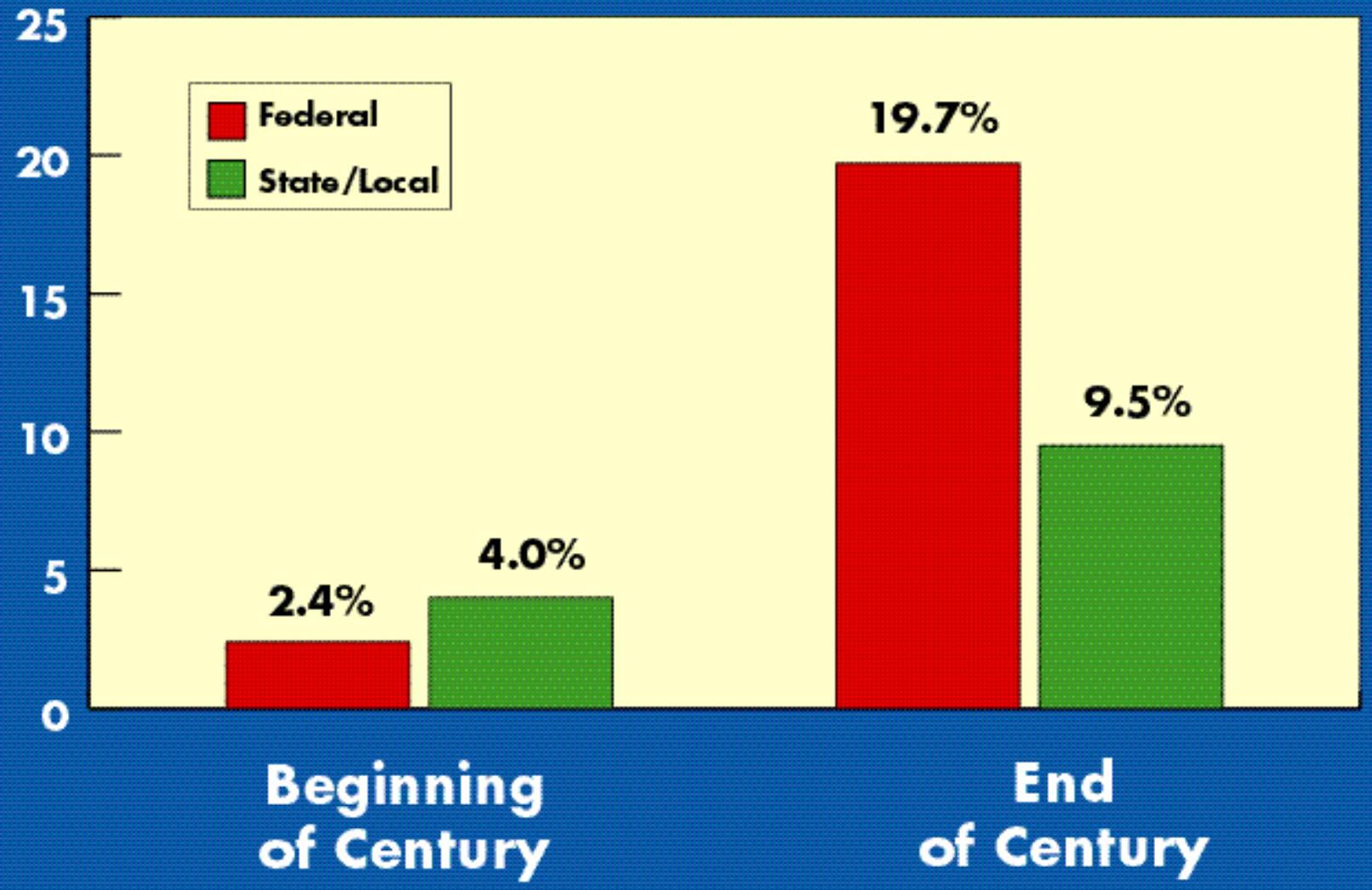
Total Taxes as a Percentage of GDP



Sources: JEC calculations based on Department of Commerce data for 1902 and 1998, except end of century federal which is based on federal budget data for fiscal 1999. Figures exclude non-tax revenues, such as postal revenue in 1902.

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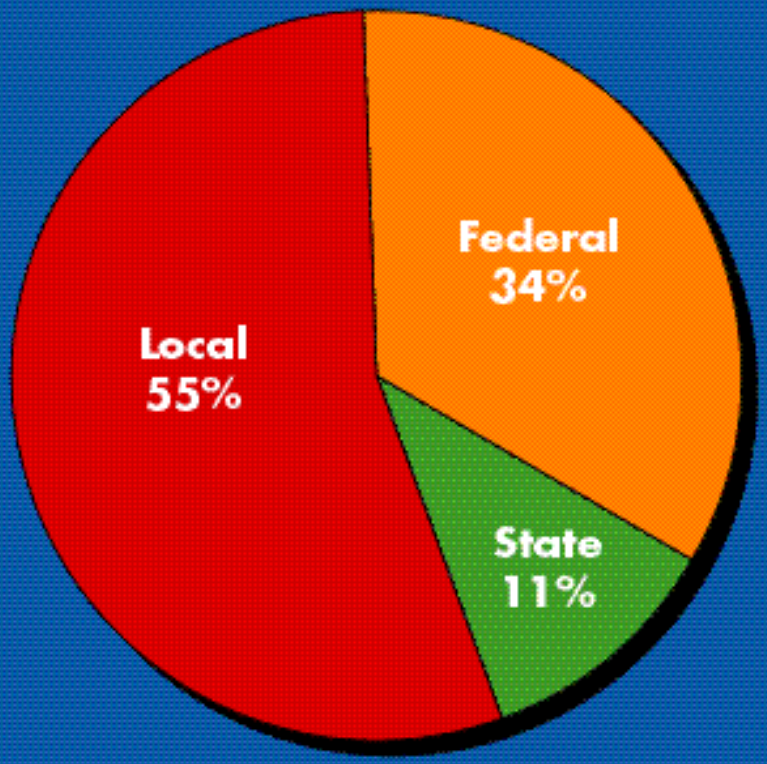
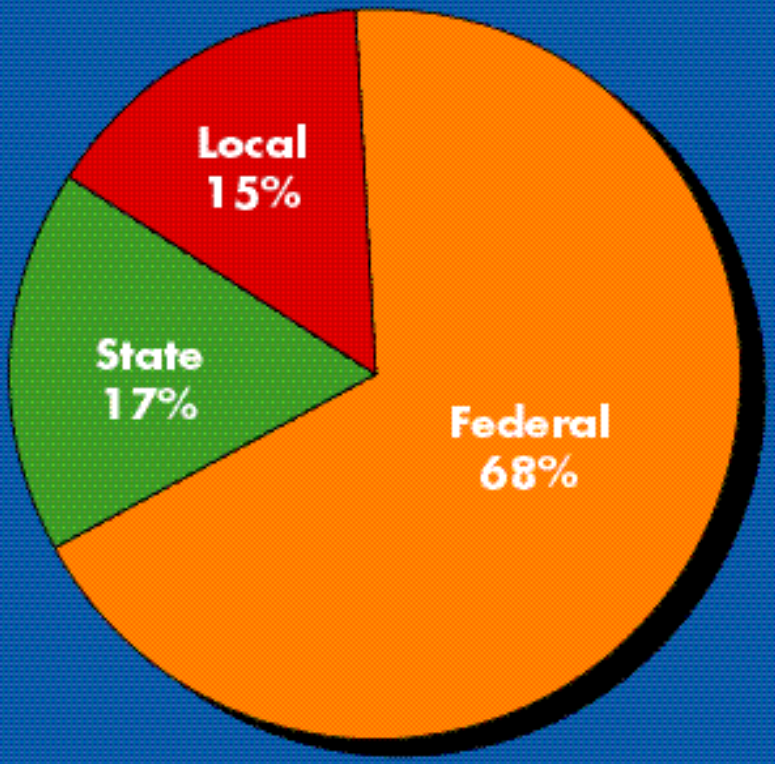
Government Expenditures by Level



Beginning of Century



End of Century

Sources: JEC estimates based on BEA and Census data. Intergovernmental flows are treated as expenditures of the disbursing level of government. Exact years in chart are 1902 and 1998.

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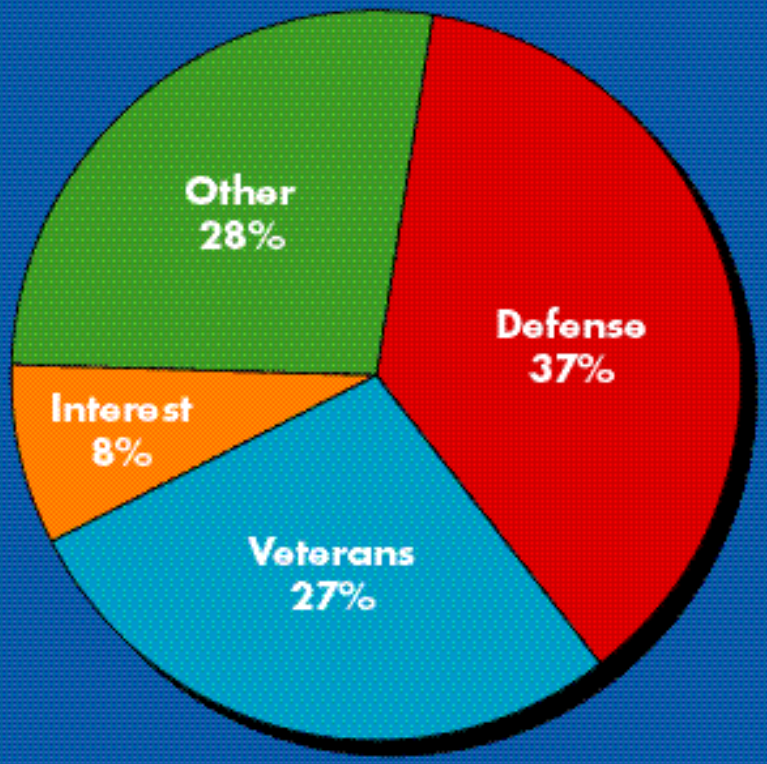
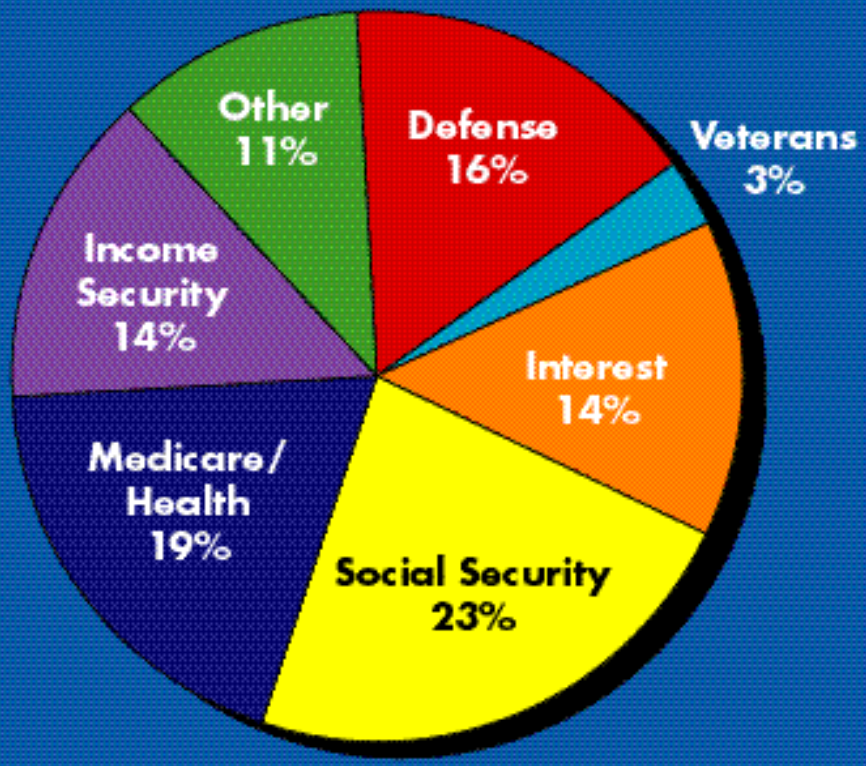
Federal Government Expenditures by Function



Beginning of Century

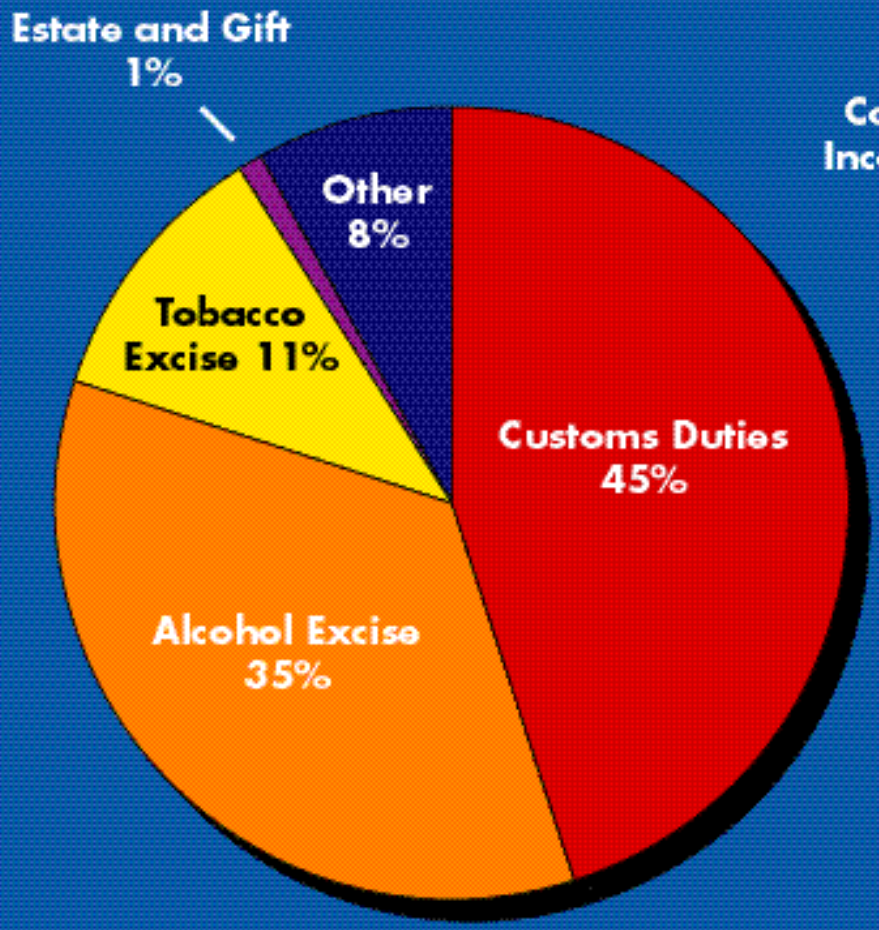


End of Century

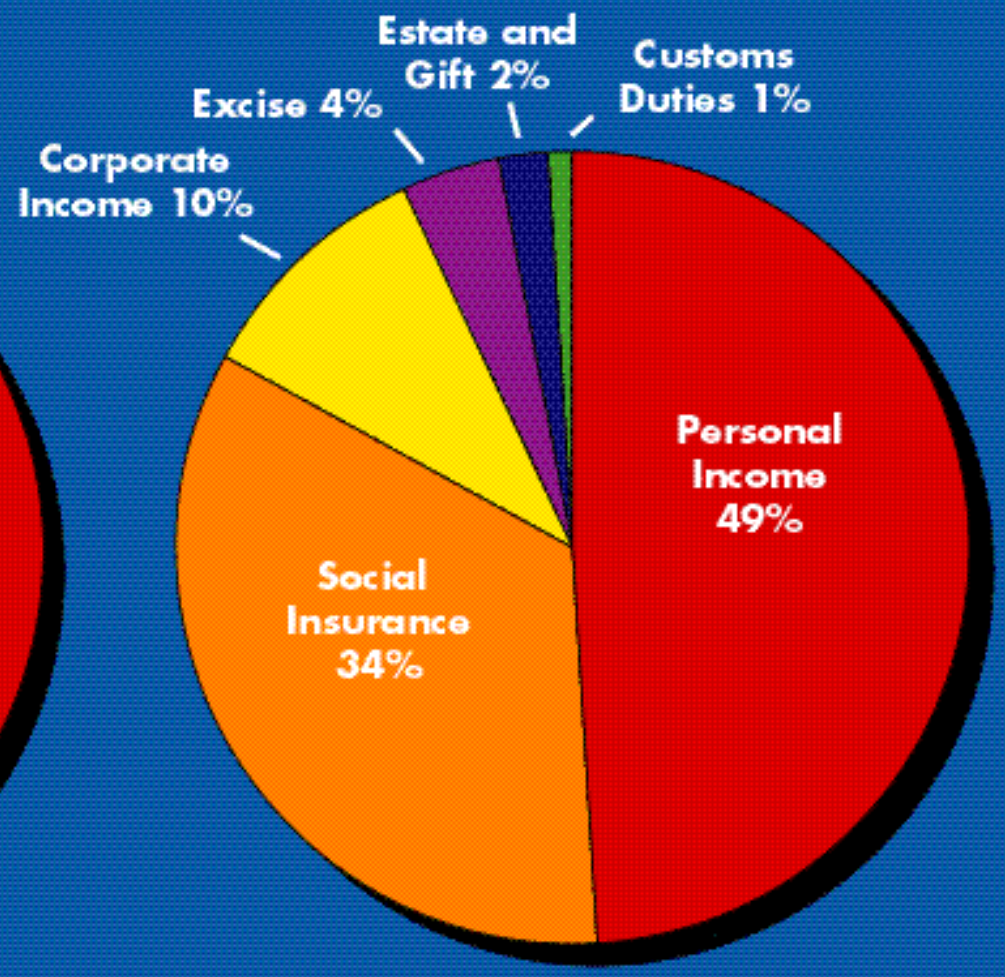
Sources: Beginning of the century from the Bureau of the Census (excludes postal operations). End of century from Senate Budget Committee. Exact years in chart are 1900 and 1999.

Joint Economic Committee

Federal Taxes by Type



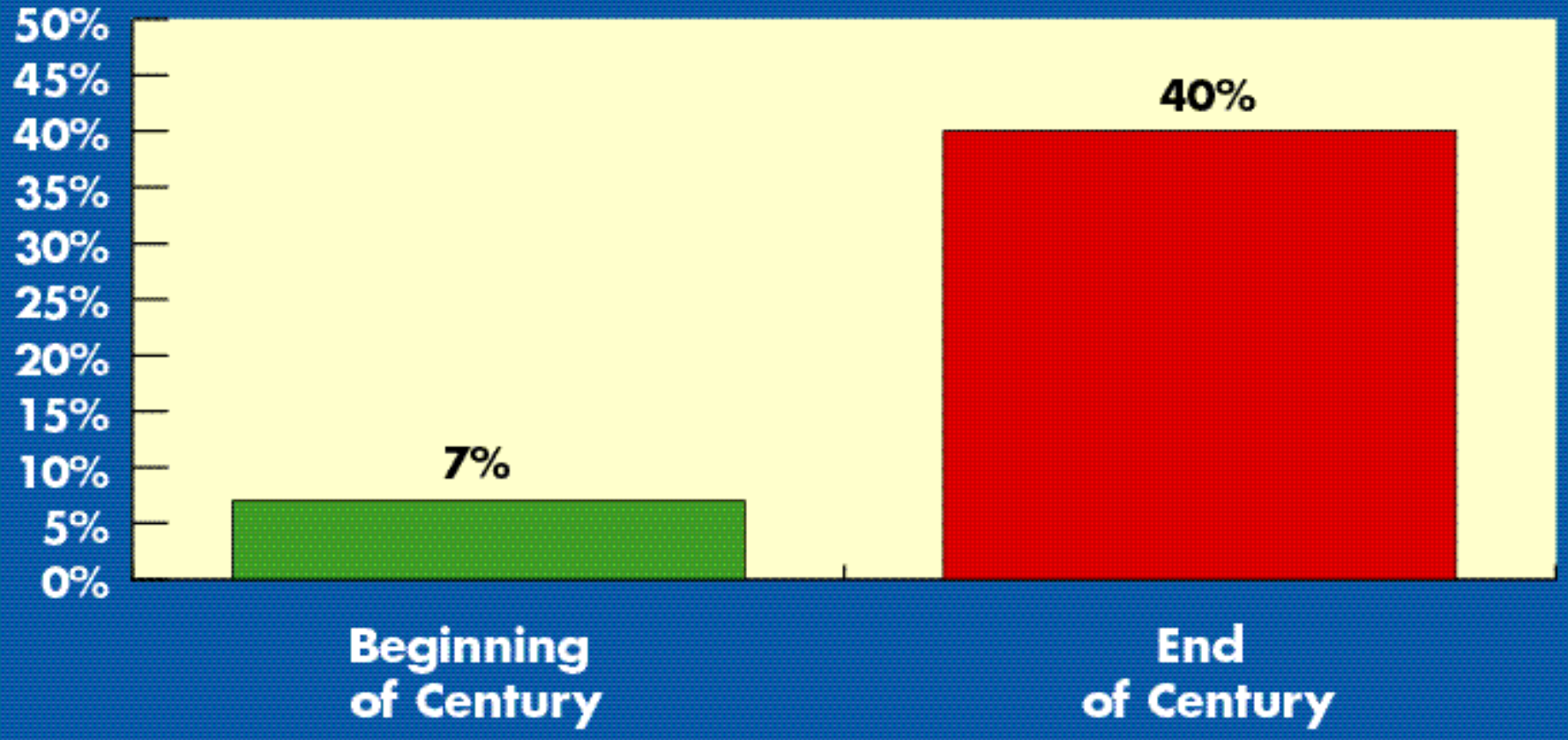
Beginning of Century



End of Century

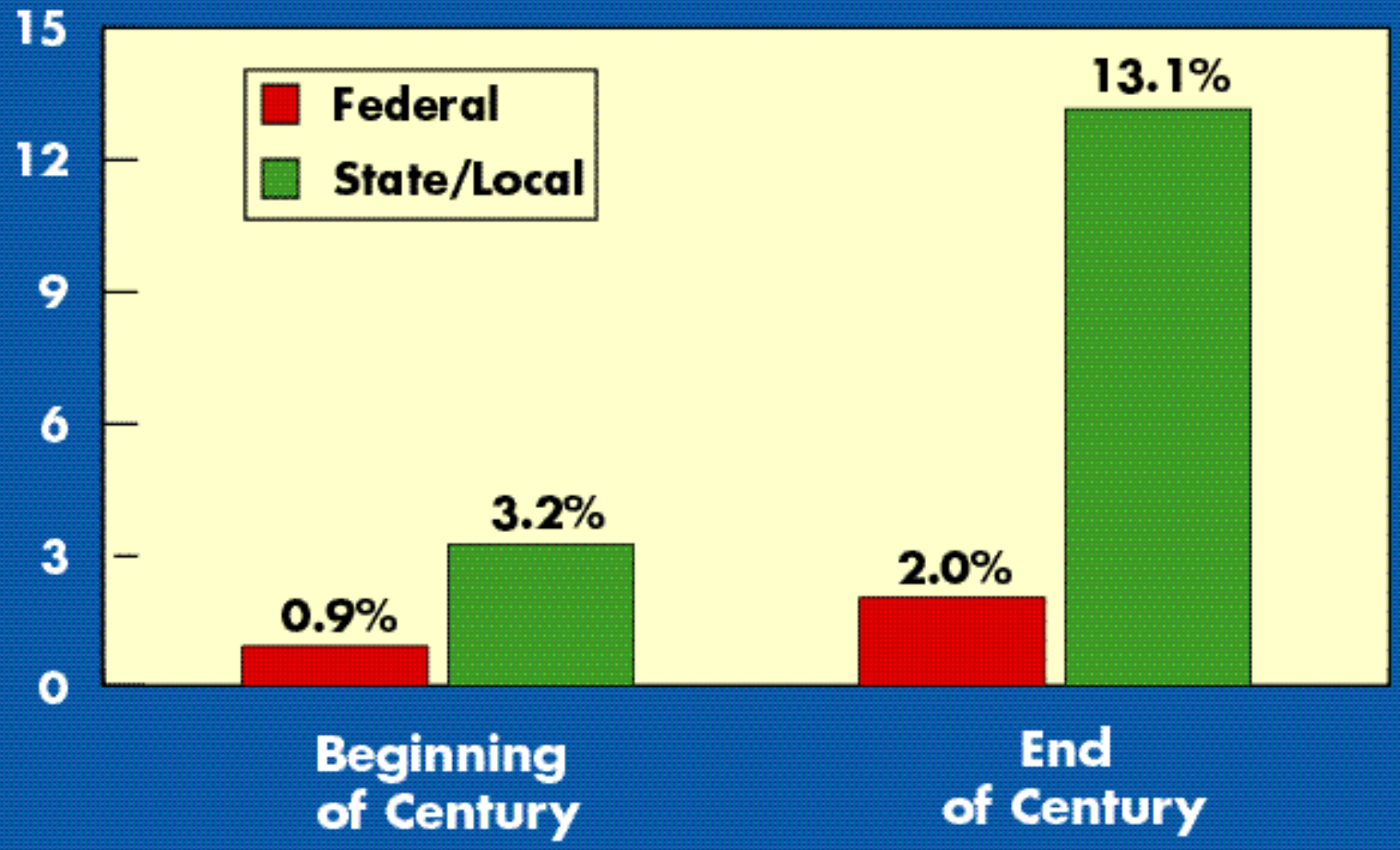
Sources: Beginning of century from Bureau of the Census. End of century from Senate Budget Committee. Exact years are 1900 and 1999.

Federal Government Public Debt as a Share of GDP



Sources: Beginning of century from Bureau of the Census. End of century from OMB. Exact years in chart are 1900 and 1999.

Government Employment as a Share of Total Employment



Sources: Includes civilian employment only, excludes military. JEC calculations based on *Manpower in Economic Growth*, Stanley Lebergott, 1964 (beginning of century), and Bureau of Labor Statistics (end of century). Exact years in chart are 1900 and 1998.

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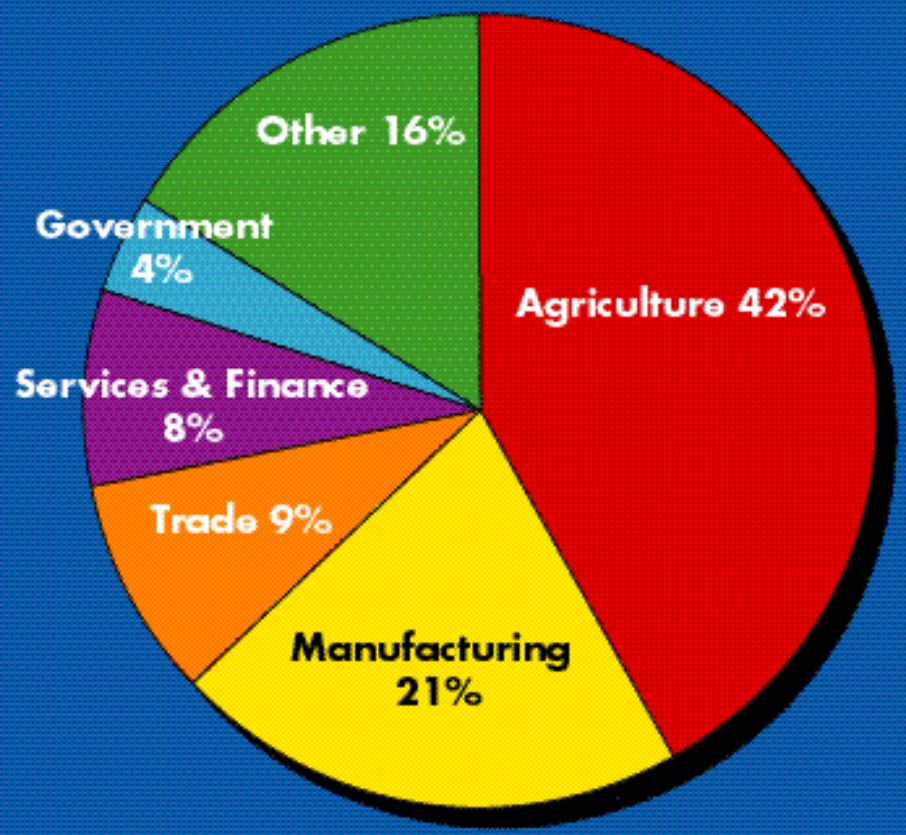
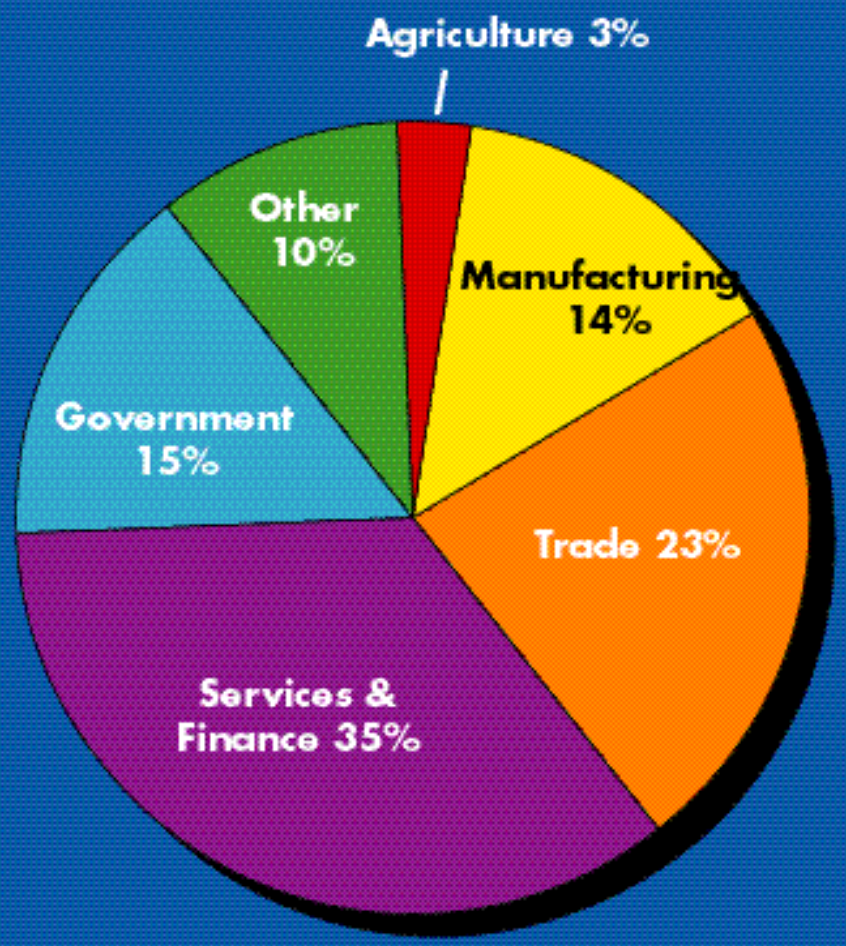
Section 5:

The American Workforce

Employment by Industry



Beginning of Century



End of Century

Sources: JEC calculations based on Bureau of Census data (beginning of century), and Bureau of Labor statistics data (end of century). Exact years in chart are 1900 and 1998.

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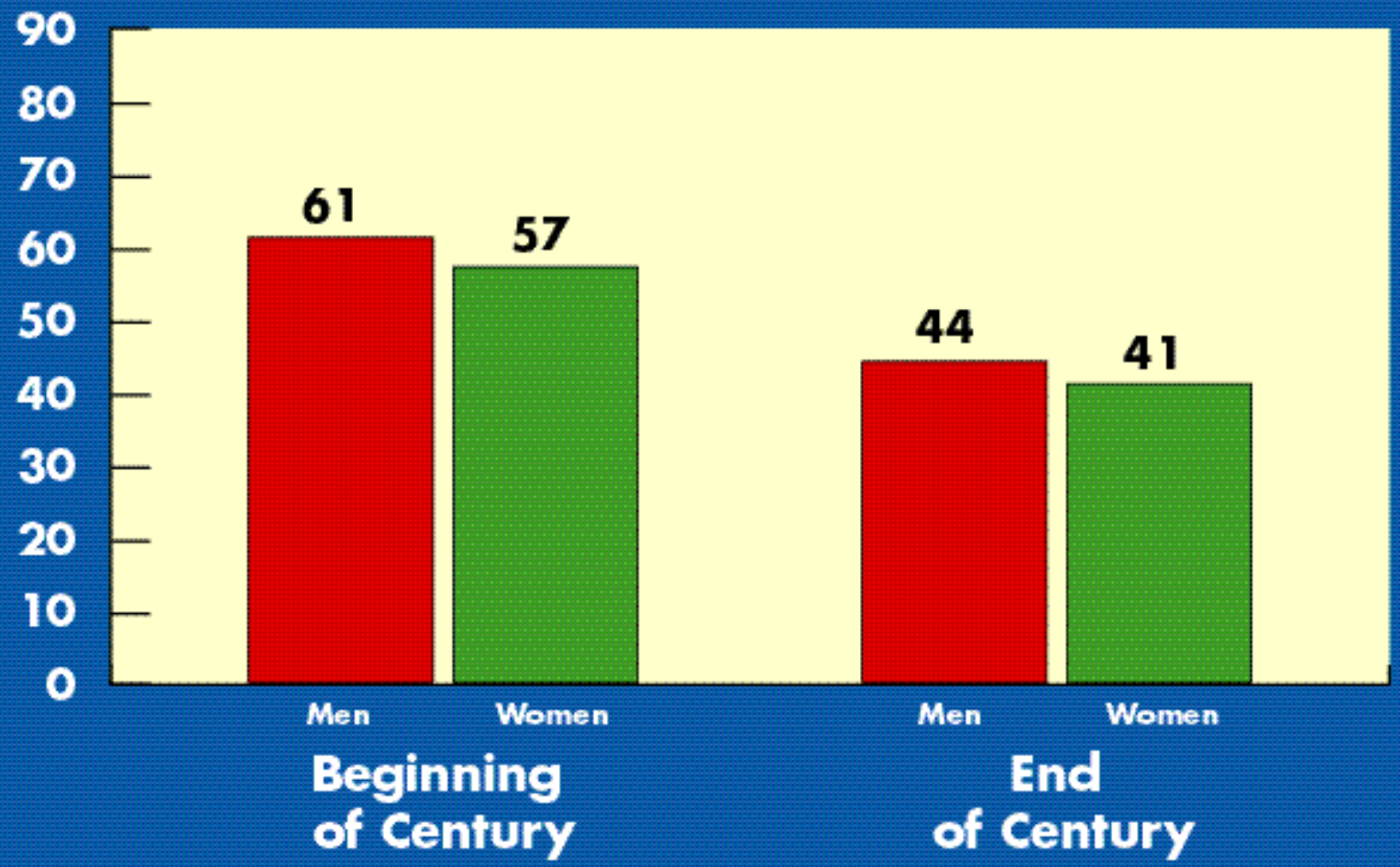
Typical Weekly Hours Worked by Full-Time Employees



Sources: Beginning of century from "The Wage and the Length of the Working Day: From the 1890s to 1991," Dora L. Costa, *NBER Working Paper* 6504, 1998. End of century from Bureau of Labor Statistics. Years in chart are the 1890s and 1997.

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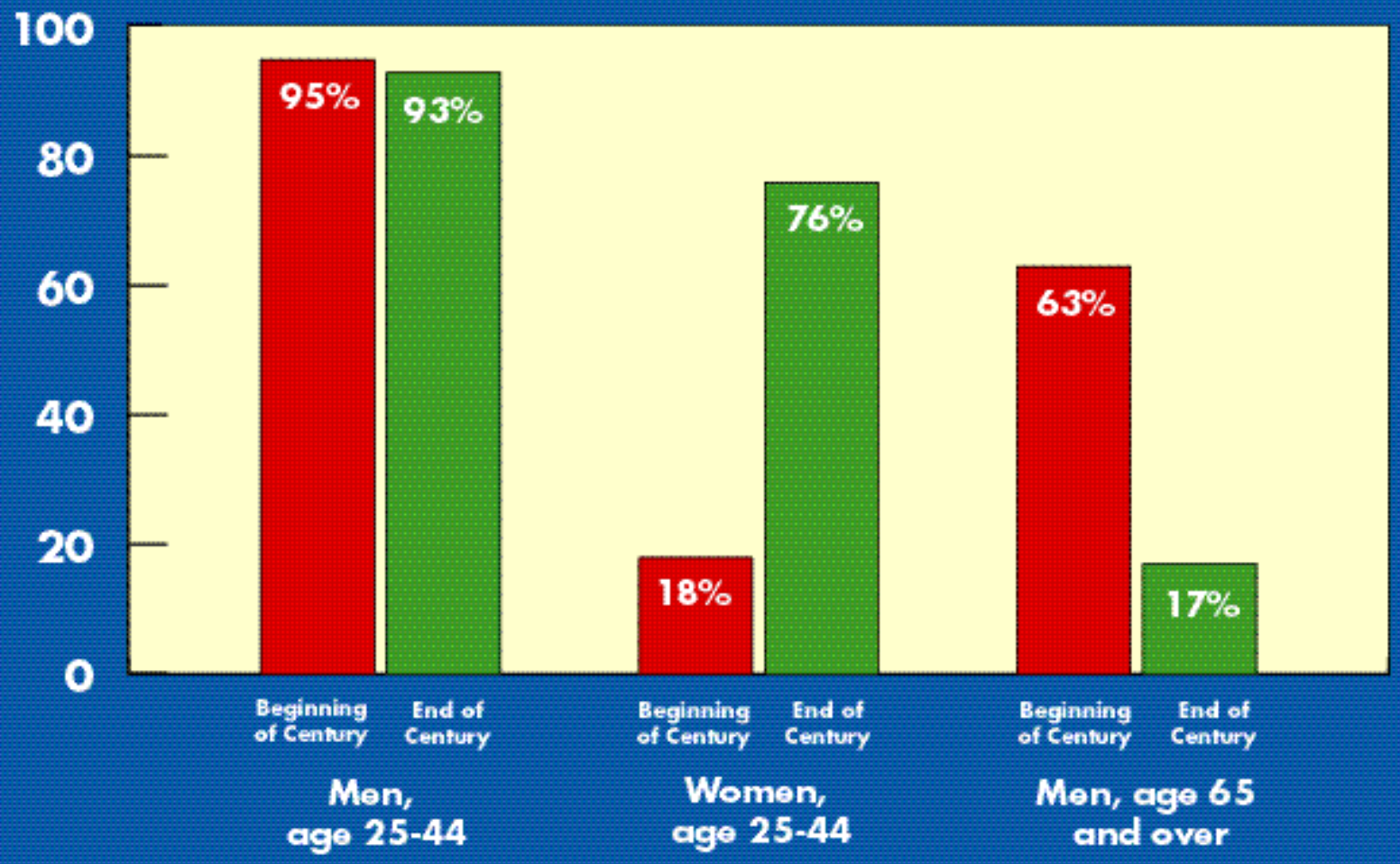
Labor Force Participation Rates For Selected Groups



Sources: Beginning of century from "Labor Markets in the Twentieth Century," *NBER Historical Paper No. 58*, Claudia Goldin, 1994. End of century from the Bureau of Labor Statistics. Exact years in chart are 1900 and 1998.

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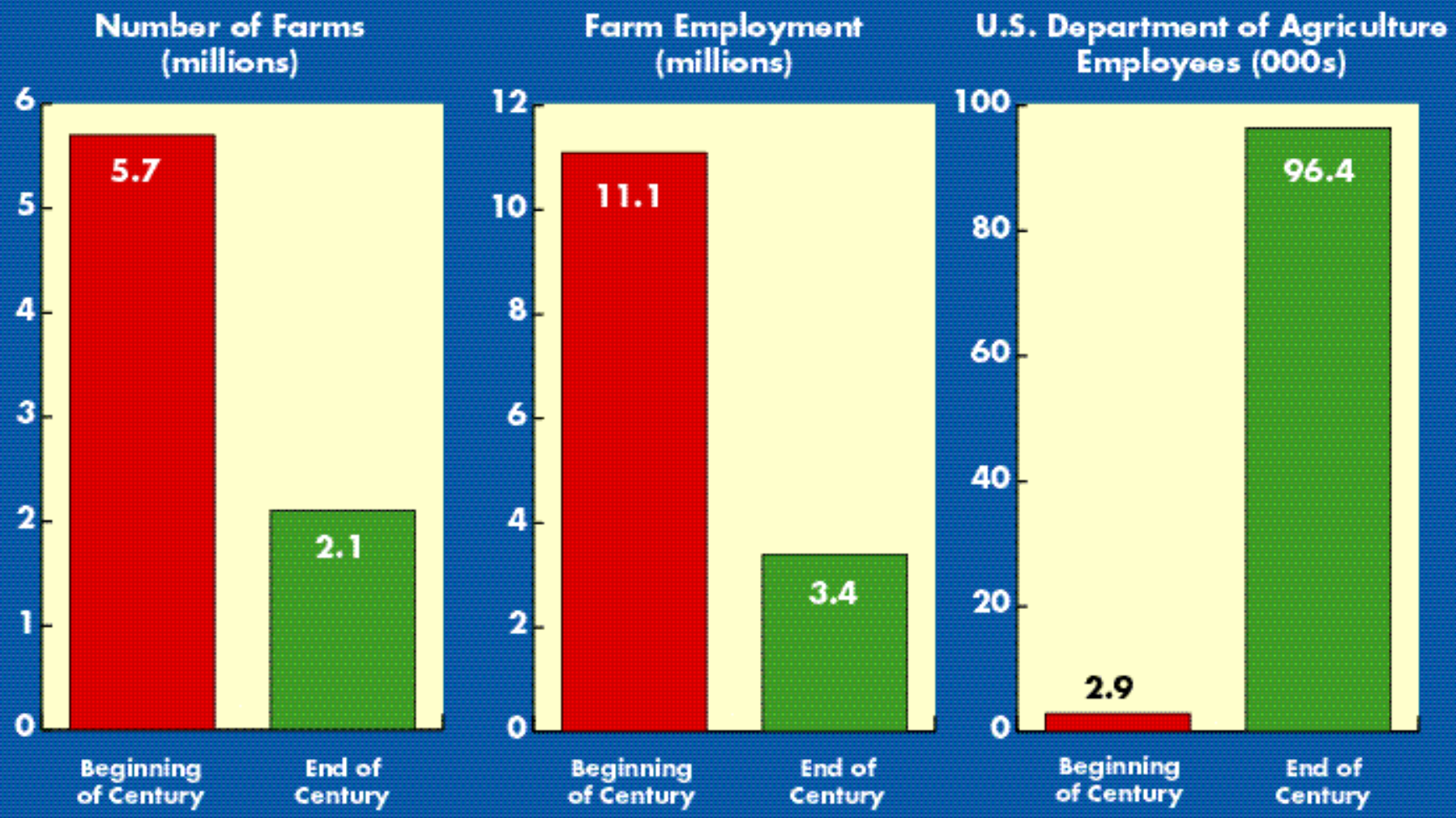
The Changing Structure of American Farming



Sources: Beginning of century from *History of the American Economy*, Walton and Rockoff, 1998; and *The United States Department of Agriculture*, William Wanlass, 1920. End of century from Dept. of Agriculture, OMB, and Bureau of the Census. Various years.

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Top 10 Manufacturing Industries by Employment

Beginning of Century

	Industry	Share of Manufacturing Employment
1)	Foundry and machine shops	6.6%
2)	Cotton goods	5.4
3)	Lumber products	5.2
4)	Iron and steel	4.1
5)	Men's clothing	3.6
6)	Printing and publishing	3.5
7)	Railroad cars and related	3.2
8)	Footwear	2.6
9)	Carpentry	2.2
10)	Tobacco, cigars, cigarettes	1.9

End of Century

	Industry	Share of Manufacturing Employment
1)	Motor vehicles and equipment	4.1%
2)	Plastic products	4.1
3)	Commercial printing	3.2
4)	Electronic components	3.2
5)	Meat products	2.3
6)	Structural metal products	2.3
7)	Newspapers	2.2
8)	Misc. industrial machinery	2.1
9)	Aircraft and parts	2.0
10)	Misc. fabricated metal	1.6

Sources: JEC calculations based on *Census of Manufacturers*, Bureau of the Census, 1900 (beginning of century); and Bureau of the Census (end of century; based on 3-digit SICs). Exact years in chart are 1900 and 1996.

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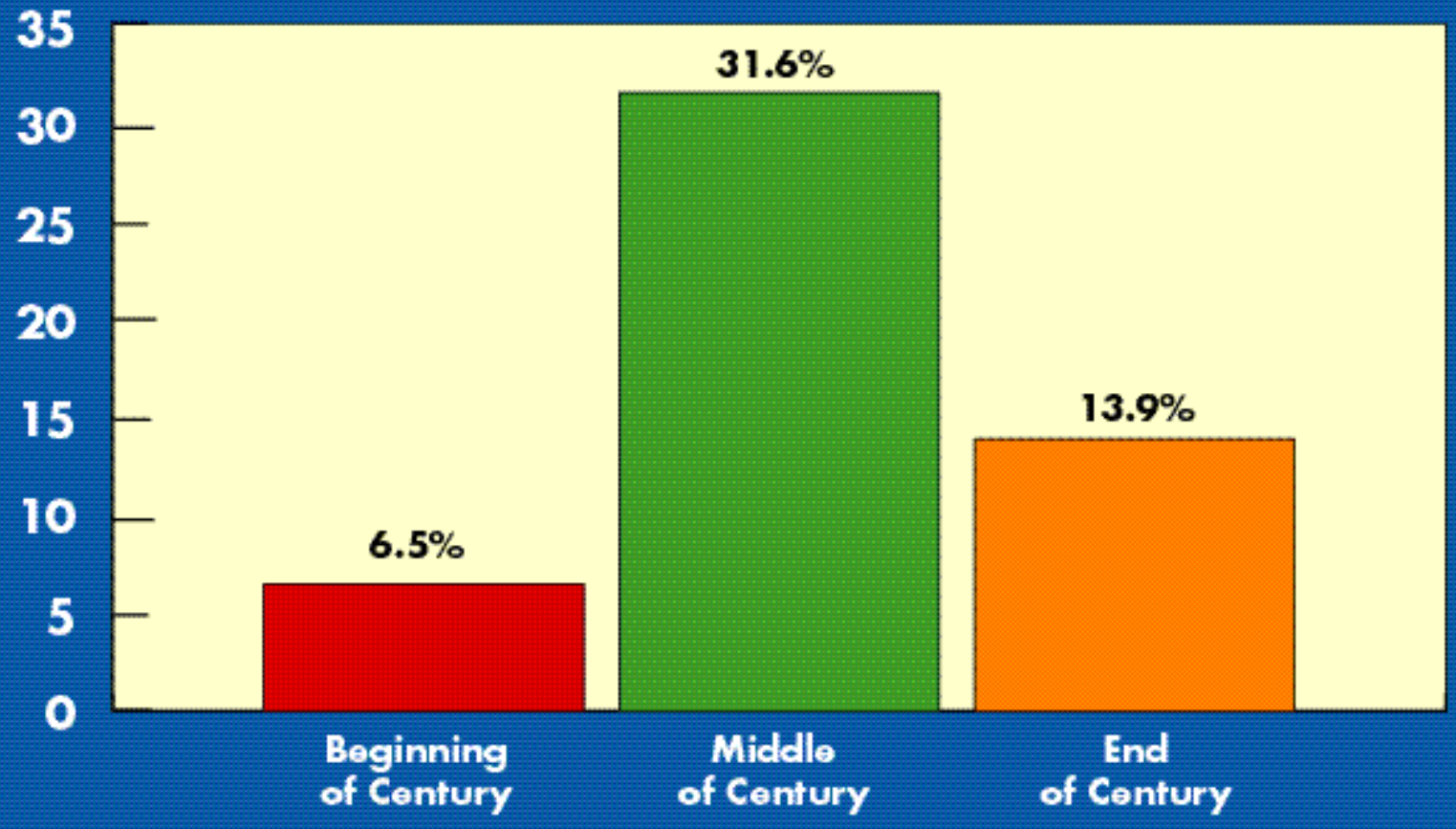
Union Members as a Share of the U.S. Workforce



Sources: Figures include nonagricultural workers only. Beginning and middle of century from *U.S. Union Sourcebook*, Leo Troy and Neil Sheflin, 1985. End of century from *Monthly Labor Statistics*, Bureau of Labor Statistics. Exact years in chart are 1900, 1950, and 1998.

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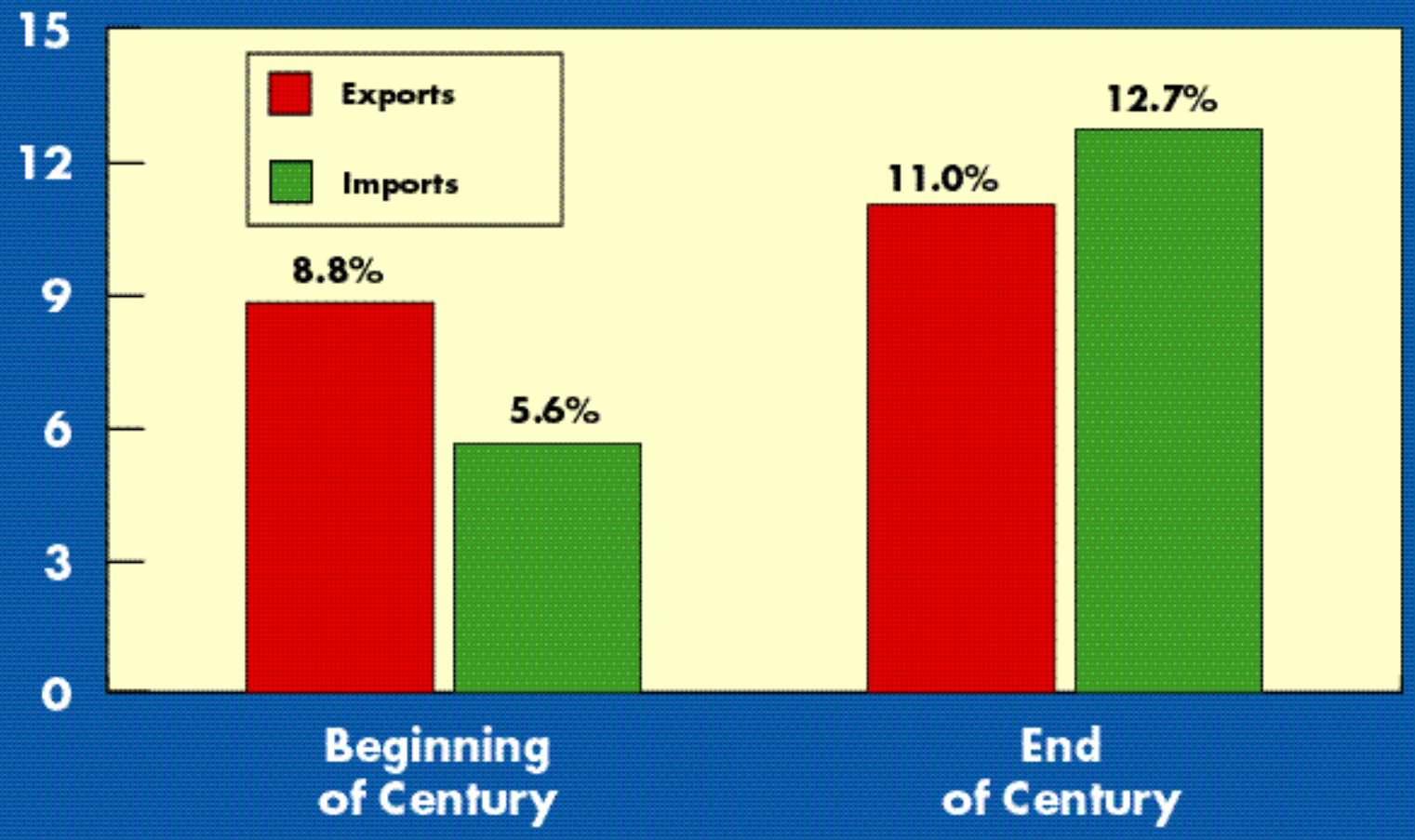
Section 6:

International Trade

U.S. Foreign Trade as a Share of GDP

Exports and Imports of Goods and Services

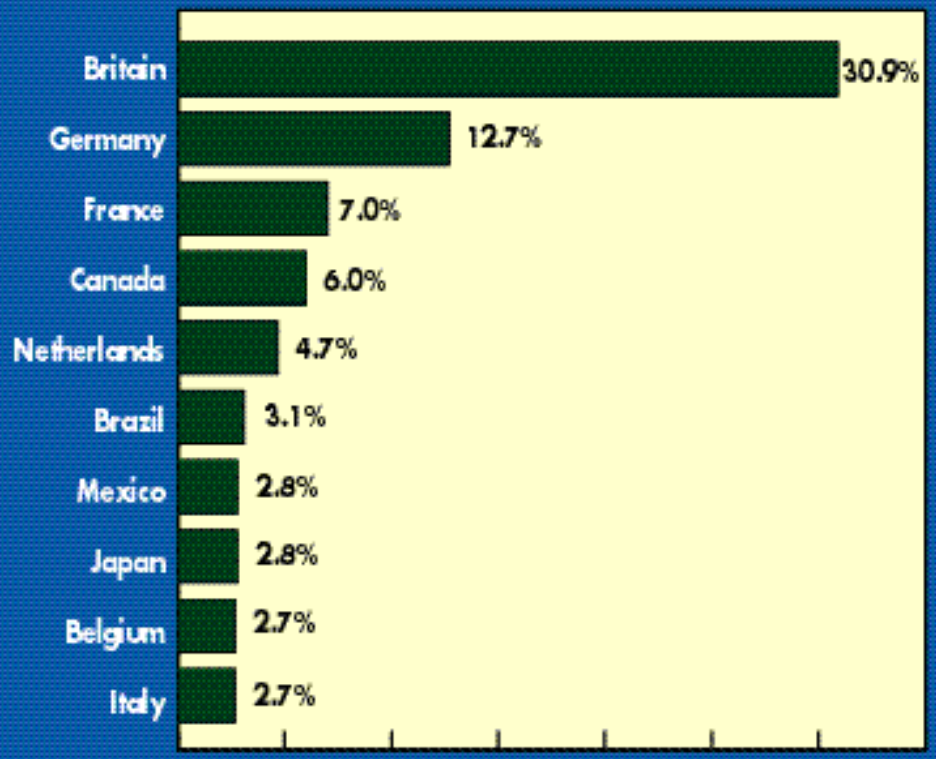


Sources: JEC calculations based on Bureau of Census data (beginning of century); and Bureau of Economic Analysis data (end of century). Exact years in chart are 1900 and 1998.

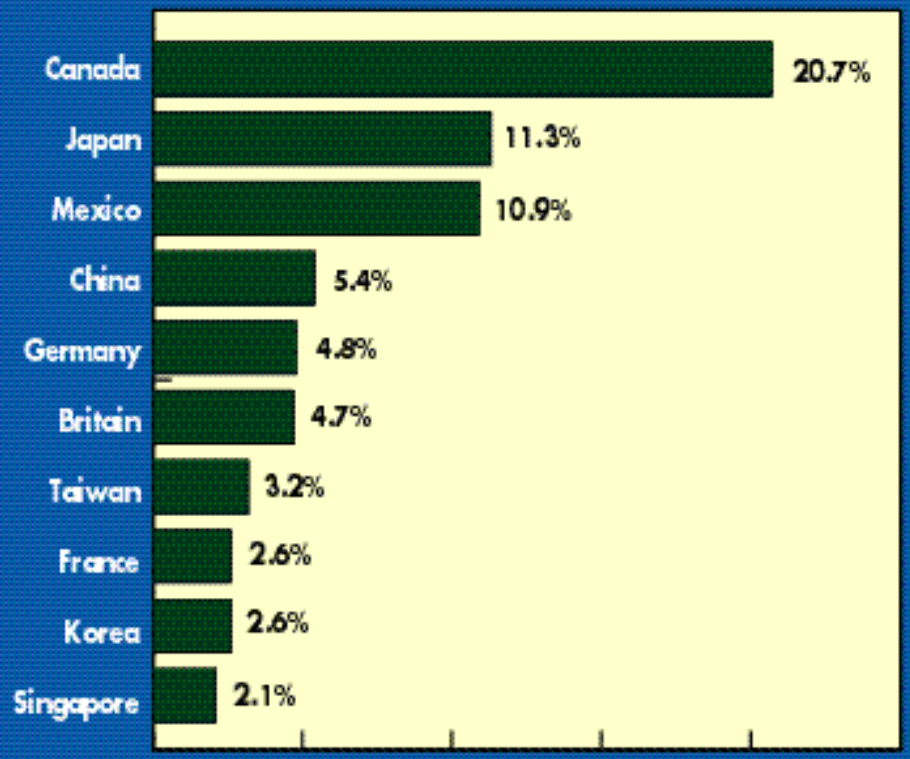
Joint Economic Committee

Top 10 Trading Partners of the U.S.

Shares of Total Imports and Exports of Goods



Beginning of Century



End of Century

Sources: Beginning of century from the *Statistical Abstract of the United States*, Dept. of Commerce and Labor, 1910. End of century Bureau of Census Web site. Exact years in chart are 1900 and 1998.

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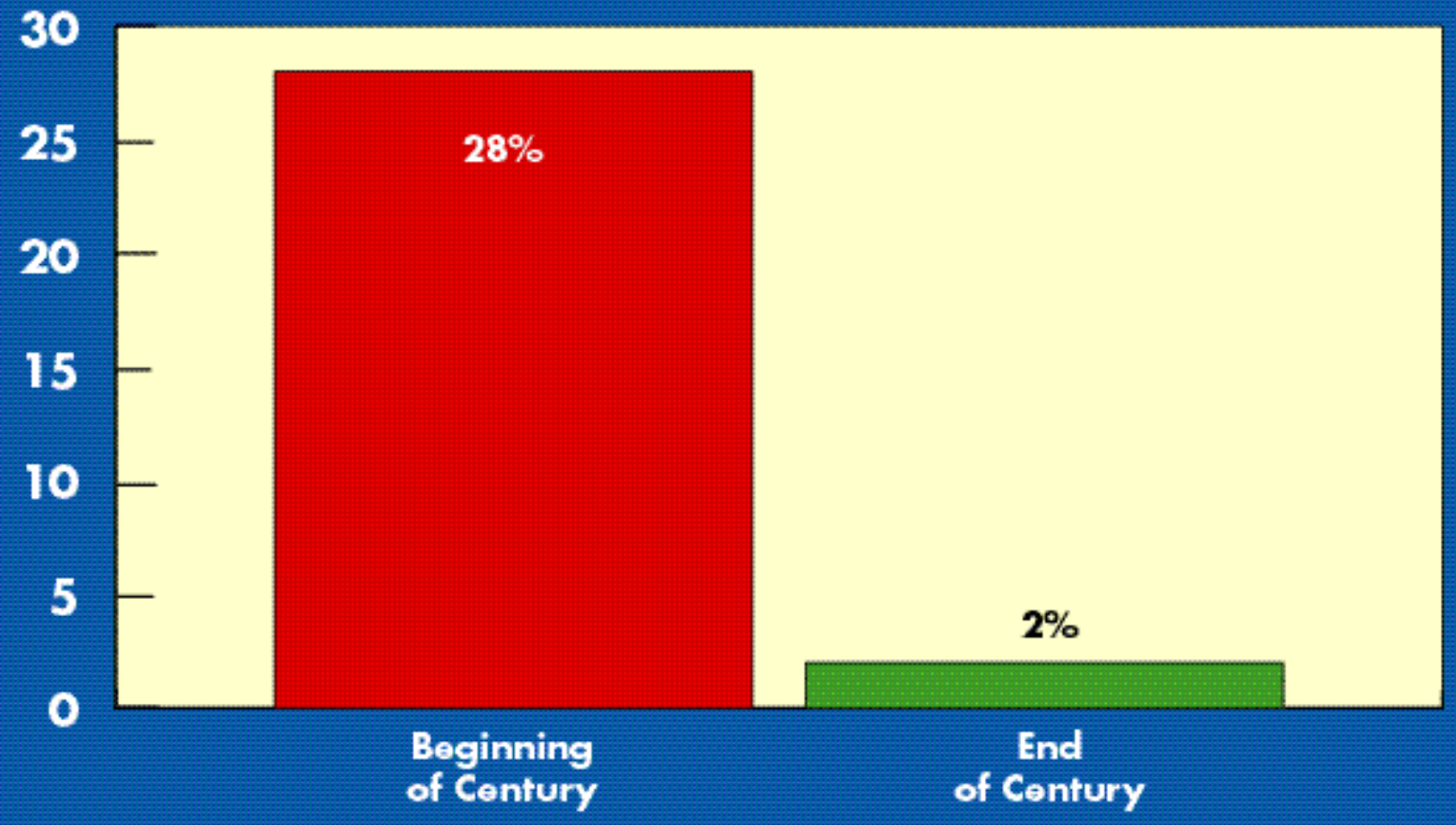
U.S. Import Taxes

Ratio of Import Tariffs Collected to Value of All Imports



Sources: Beginning of century from *Historical Statistics of the United States*, Bureau of the Census. End of century from *Statistical Abstract*, Bureau of the Census. Exact years in chart are 1900 and 1998.

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