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ABSTRACT
            This document consists of nine individual booklets
published by the Bureau of the Census. "Census Bureau Education
Program: Update 1" consists of introductory material and describes
the teaching resource series that are presented here and that make up
the Bureau's education program. "Census Bureau Teaching Resource 1 -
Congressional Redistricting" involves junior and senior high school
students in modeling the redistricting process that took place in
their state, exploring civic decision making, mathematics, and
geography skills. "Census Bureau Teaching Resource 2A - National and
State Population Trends" is designed for use in the elementary
grades, and explores population data about the United States.
Mathematics, language arts, and geography applications are provided
in six lesson plans. "Census Bureau Teaching Resource 2B - National
and State Population Trends" is keyed to junior high and high school
students who move through data reading and analysis, learn the
concept of geographic focus, and explore spatial patterns and
relationships. "Census Bureau Teaching Resource 3 - Lights! Camera!
Action!: Studying the Size and the Center of U.S. Population,
1790-1990" involves junior high and high school students in exploring
data and geographic concepts to gain insights into the historical
growth and distribution of the U.S. population and the nation's land
area. "Strength in Numbers" is a 12-page tabloid type publication
that gives a guide to the 1990 census redistricting data program.
"Counting for Representation: The Census and the Constitution" is an
eight-page booklet examining the constitutional origin of the census
and apportionment. "1990 Census Profiles #1 and #2" provide a map
presentation of representation, and explore the nation's racial and
Hispanic diversity. (DK)

Census Bureau Education Program

Census Bureau Education Program: Update 1

Welcome and Thank You

Many of you are new to the Census Bureau Education Program. At the same time, some of you are now old hands at using Census Bureau data in your classrooms. To the newcomers, we say welcome. To old friends, we say thank you. Because of your sustained interest, we are proud to say that what was once only a project tied to the 1990 census event is now an ongoing Census Bureau program.

For more than 6 years, the Census Bureau has listened to K-12 educators and watched the changes taking place in mathematics, science, and social studies (especially geography). As a result of that listening and watching, our aim is to create and give you innovative, teacher-ready classroom activities. We also want to introduce you to the full range of data produced by the Census Bureau—from alfalfa farming to zinc mining—and ways to obtain this information in your backyard.

Our intention is not to develop a "Census Bureau" curriculum. Rather, our wish is to provide you with classroom materials that help you respond directly to new curriculum standards and that fit into what you already are teaching. We also are working to make our teaching materials as interdisciplinary as possible. We, likewise, hope that the teaching materials and the data from this agency enrich your students' lives by broadening their understanding of their hometowns and the world around them. In the process, we believe you and they will have fun.

What's Inside?

How to Reach Us

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1

People...People Who Count People

Over 200 years ago, the founders of this country reached a momentous decision to conduct a national census of population. While the 1790 census and subsequent decennial censuses have been administered to meet the constitutional mandate of apportionment of the House of Representatives, members of the Constitutional Convention would not have imagined that the creation of this every-10-year event would result in establishing a national data base of population and other statistics that touch every aspect of American life.

Since 1902, the task of census-taking in this country has been the mission of the U.S. Bureau of the Census. The facts and figures from the once-a-decade event tell us who we are, how and where we live, how we are housed (since the 1940 census), and what changes are taking place in the socioeconomic fabric of our country.

Besides Counting People, What Does the Census Bureau Do?
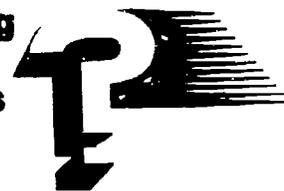
The Census Bureau is known as the *Factfinder for the Nation*. The name is very appropriate because the agency constantly collects data and provides information. While we are best known for the national census of population and housing, we also conduct national economic, agriculture, and governments censuses every 5 years. In addition to censuses, the Census Bureau administers hundreds of surveys each year, prepares present-day estimates about the population and other aspects of American society, and develops projections about the future.

Our mission of collecting data has earned us the title of *bean counters*, and it is very apropos. We do count beans—in bushels and acres—as well as other crops, livestock, and farms in general.

Where Do Census Bureau Data Fit in K-12 Education?

The use of statistical data in practical situations is becoming pervasive in our society. More and more, decisions of personal, local, national, and global significance are being guided and/or affected by this information. As we become an "information society," having skills in understanding, interpreting, and quickly locating appropriate statistics become increasingly important. Without those skills, students begin to limit their options and ability to participate fully in society.

Given the everyday nature of Census Bureau statistics and their application in social, economic, political, environmental, and technical decisions, Census Bureau findings give you a way to address objectives you already teach. Here are some specific examples of where Census Bureau data fit:

In social studies, these data can help students:
- Understand the effect of population size, composition, and distribution on historic events and vice versa;
- Explore fundamental themes in geography (location, place, relationships within places, movement, regions);
- Investigate how people affect changes and are affected by changes in social and economic systems; and
- Examine parts of our Federal Government, our political system, and measures of participation in this democracy.

In mathematics and science, they can help students:
- Develop number sense and computational skills;
- Recognize the use of mathematics in everyday life and in other curriculum areas;
- Collect and organize data and apply descriptive statistics;
- Interpret displays of data with tables, maps, and graphs; and
- Use models, facts, and relationships to explain their thinking and explore independent, dependent, and mutually exclusive phenomena/events.

In language arts, they can help students:
- Become familiar with the use of numbers, graphs, and maps in media and other resources in daily life;
- Broaden library/research skills and their knowledge base of information sources;
- Build writing skills by constructing narratives from tabular, mapped, and graphic data; and
- Expand personal opportunities as information skills become a critical filter for full participation in society.

We also count and describe mines, factories, and businesses of all types. We measure a host of economic endeavors, including housing starts and retail sales. We monitor and report data on local, State, and Federal Government revenues and expenditures. We put a finger on the pulse of the international trade balance by calculating the volume and value of imports and exports.

The data from this agency are very much about everyday life. They help guide thousands of decisions. Government officials, business people, reporters, market analysts, service providers, planners, and others use Census Bureau information in their work. So can you. For a complete picture of the Census Bureau's activities and data, order *Factfinder 18—Census Bureau Programs and Products* listed on page 17.

Census Bureau Geography: Where Are We?

By working with Census Bureau data, you and your students are working with geography. An important axiom to remember is, *"All Census Bureau data are geographically tied."* Regardless of the census or survey involved, the numeric information you and they are handling is hitched to a piece of the planet.

We have summarized data for literally millions of pieces of the planet. For instance, in the 1990 census, we are producing data summaries for nearly 8 million geographic areas within the United States—ranging from the Nation down to an individual city or rural block. Looking outside the U.S., we have demographic and economic data about more than 200 countries.

As you begin to include Census Bureau data in your teaching, a question you must answer is, "What is my geographic focus?" To answer that question and to know what those geographic possibilities are, we suggest you order a FREE copy of *Maps and More: Your Guide to Census Bureau Geography* listed on page 10.

Guide to Instructional Resources

This portion of *Update 1* highlights Census Bureau resources that were designed expressly

for K-12 teachers. In addition, we have included a selection of general Census Bureau data products which are useful in your teaching. We've organized them in the following subject areas: *1990 Census, Agriculture, the Economy, Governments, and Population Characteristics.* Please recognize that what we've listed here only gives you a taste of the data products available.

Each product entry provides a description, publication frequency, price, stock number, and order source. These order sources include: **CSB** (Customer Services Branch, Bureau of the Census), **TEAMS** (Training, Education, and Marketing Staff, Bureau of the Census), and **GPO** (Superintendent of Documents, Government Printing Office). Reproducible order forms are on the last two pages of this booklet. Addresses and telephone numbers for **CSB**, **TEAMS**, and **GPO** also are listed.

You Know You Need a Map When...

...you want your students to examine the characteristics of the people and the housing surrounding the school. To do this, your students will want to use 1990 census data. But the statistics are not going to be enough, because the students will need to know the geographic area represented by these data. To do that, they are going to need one or more maps.

Maps that display the boundaries of the 1990 census geographic areas are available for a fee from the Census Bureau's Customer Services Branch (301-763-4100). However, before you call us, contact your State Data Center and ask if any agency in the State or in your community provides 1990 census maps to the public. The address and telephone number of your State Data Center are listed in the "Guide to Instructional Resources."

Here is a list of some of the geographic areas for which you will require a 1990 census map to identify boundaries: county subdivisions, census tracts, block numbering areas, urbanized areas, census blocks, census designated places, block groups, and American Indian/Alaska Native areas. These and other geographic areas are discussed in *Maps and More: Your Guide to Census Bureau Geography,* which also is mentioned in the "Guide to Instructional Resources."

Instructional Resources, Education Reports, & Related Products

Census Bureau Teaching Resources. *Periodic series. Single copy FREE; CSB.* K-12 resources offer teacher-ready activities and lesson suggestions. Some include student worksheets. Most resources in the series require the use of other Census Bureau products. These data products must be ordered separately. Most are FREE. Data products associated with each resource are listed in that resource and are explained elsewhere in this Guide.
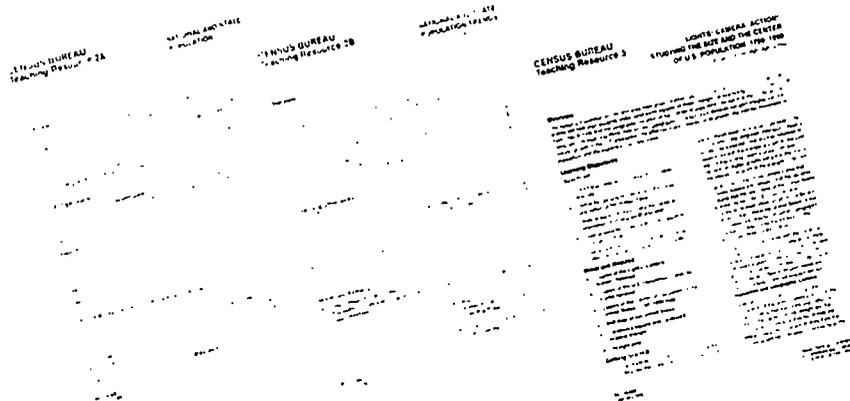
Census Bureau Teaching Resource 1—Congressional Redistricting involves junior high/high school students in modeling the redistricting process that took place in their State. Explores civic decision-making, mathematics, and geography skills. Other products needed: *1990 Census Profile Number 1—Population Trends and Congressional Reapportionment, Strength in Numbers, Counting for Representation: The Census and the Constitution,* and 1990 census data (population, age, race/Hispanic origin) for counties.

Census Bureau Teaching Resource 2A—National and State Population Trends is designed for use in the elementary grades. Students explore population data about the United States. Mathematics, language arts, and geography applications provided in six lesson plans. Other product required: *1990 Census Profile Number 1—Population Trends and Congressional Reapportionment.*

Census Bureau Teaching Resource 2B—National and State Population Trends is keyed to junior high/high school students. Students move through data reading and analysis, learn the concept of geographic focus, and explore spatial patterns and relationships. Other products needed: *1990 Census Profile Number 1—Population Trends and Congressional Reapportionment* and *1990 Census Profile Number 2—Race and Hispanic Origin.* Note: There is a map error on the last page of this resource. We have produced a corrected copy as a replacement. Please ask for *Census Bureau Teaching Resource 2B* replacement map, entitled *Oops!* with your order.

Census Bureau Teaching Resource 3—Lights! Camera! Action!: Studying the Size and the Center of U.S. Population, 1790-1990 involves junior high/high school students in exploring data and geographic concepts to gain insights into the historical growth and distribution of the U.S. population and the Nation's land area. Resource contains all needed materials.

Strength in Numbers. *One-time publication. Single copy FREE; CSB.* Twelve page tabloid-type publication gives a guide to the 1990 census redistricting data program. Text supplies background information about the decennial census, census taking, and the uses of the resulting data. Topics of apportionment and redistricting are explained through narratives and graphics. Use with *Census Bureau Teaching Resource 1.*

Counting for Representation: The Census and The Constitution. *One-time publication. Single copy FREE, additional copies $0.25; CSB.* This 8-page booklet examines the constitutional origin

of the census, apportionment, the Census Bureau's role in this process, and changes that have taken place in apportionment methods. The text also provides background for classroom discussion on topics such as gerrymandering and the size of the House of Representatives. Use with *Census Bureau Teaching Resource 1.*

1990 Census Profile Number 1—*Population Trends and Congressional Apportionment.* One-time publication. Single copy FREE; CSB. The 4-page report provides a map presentation of congressional representation for the 1990's and changes since the 1980 census for States, and a brief discussion of these changes. It also supplies a table of population data from the 1990 census and from several earlier censuses. Includes narrative and graphs. Use with *Census Bureau Teaching Resource 1, 2A, 2B.*

1990 Census Profile Number 2—*Race and Hispanic Origin.* One-time publication. Single copy FREE; CSB. This profile explores the Nation's racial and Hispanic diversity. Counts from the 1990 and 1980 censuses are included. *Profile 2* focuses on the Nation, Census Bureau regions and divisions, and States. The 8-page report contains a descriptive narrative and several graphs. Use with *Census Bureau Teaching Resource 2B.*

1990 Census Profile Number 3—*Metropolitan Areas and Cities.* One-time publication. Single copy FREE; CSB. The 4-page report describes and illustrates the size of and change in the metropolitan population of the United States. Basic 1990 population counts and percent change (1980-90) data are presented for the largest metropolitan areas and cities.

Census Questionnaire Content (CQC) Bulletins. Periodic series. FREE; CSB. Mostly 2-page reports geared to grades 7-12. Each bulletin focuses on a question or group of questions appearing on the 1990 census questionnaires and demonstrates the link between those questions and the resulting data. The bulletins contain facsimiles of the question(s) discussed, charts and maps, brief data analysis, as well as short sections on data uses and sources of the data. First CQC bulletin available—CQC-11, *Value of Home and Monthly Rent.* Others will become available throughout 1992 and 1993.

200 Years of U.S. Census-Taking. Every 10 years. $6; CSB. Provides reprints of the principal decennial census questionnaires and enumerator instructions covering the period 1790 to 1990. The narrative also gives a detailed historical look at census-taking in the United States.

Does Education Pay Off? One-time publication. Single copy FREE; TEAMS. Short introduction to a larger report on the relationship between educational attainment and economic status. This 2-page document provides a brief narrative examining educational completion rates, earnings by attainment, and wage gaps between men and women.

Share Your Ideas

We know we have crafted some fresh approaches to using data in the classroom, but we also know that we have not cornered the market on creativity. As a matter of fact, some of the best ideas for lessons and procedures have come to us from educators from across the country. A few of these folks are Rita Koman, Manassas, VA; Sarah Bednarz, College Station, TX; Charlie Fitzpatrick, St. Paul, MN; Margaret Meneghello, Jersey City, NJ; Laurel Singleton, Boulder, CO; Susan Murnock,

Marietta, GA; Gail Fishman, Chicopee, MA; and Muncel Chang, Forest Ranch, CA.

Add your name to that list by sharing your ideas. If you use Census Bureau data in your classroom and develop an interesting activity using some of our data, let us hear from you. If we publish your lesson, we'll give you the credit. Simply write up the activity and provide a purpose and development strategies, list any special materials required, and a suggestion on grade and subject

placement. Also tell us who you are and where and what you teach. Be sure to include your address and telephone number. Send your idea(s) to the Census Bureau Education Program address on the front page.

As you use some of our materials, please let us know what worked and what didn't. It's important to us to know we are meeting your needs. If you have additional ideas on other ways to use census data to help the educational community, drop us a line.

Does Education Pay Off? (Slide package)
One-time product. $20; TEAMS. Package contains 19 color 35mm slides (10-page text and 9

What's Cooking?

Besides the new teaching materials listed in the "Guide to Instructional Resources," we have other classroom products under development. They will be ready later this year. Here's a taste of what's cooking.

Statistics Aren't Static: Classroom Activities Using the 1992 Statistical Abstract will be a 16-page booklet introducing the *1992 Statistical Abstract of the United States.* It will provide a reproducible data sampler of some of the nearly 1,500 data tables from the 1992 edition of this publication. Included in the booklet will be ordering information for *Statistical Abstract* and activities aimed at junior high and high school students with an emphasis on mathematics and geography. It should be ready by early fall.

We are launching the creation of a series of poster/lesson plan packages built around some of the questions from the 1990 census and the resulting data. The project is called *Where Do Data Come From?* The prototype will focus on race, Hispanic origin, and ancestry and should be ready this fall.

Given the nice fit between our data and geographic concepts and geography education, we plan to create a 5-10 minute video designed to give teachers a better understanding of how using Census Bureau data and concepts will aid in teaching the "Five Fundamental Themes." We plan to have the video available by fall.

At least two new Teaching Resources are planned for later this year. *Teaching Resource 4: How's Our Housing?* will take a historical look at several key aspects of our Nation's housing; for instance, home ownership rates, housing values, and household size. *Teaching Resource 5: The Lights Are On and Everybody's Home* will offer classroom suggestions for using the *1990 Population Distribution Map* (also known as the "Nighttime Map"). The map and resource are both due out at the end of 1992.

data slides) and hard copies. Companion to the above-noted report.

School Enrollment—Social & Economic Characteristics of Students: October 1990. *Periodic. Series P-20, No. 460; forthcoming late spring 1992; GPO. For stock number and price, contact CSB.* Report narrative, tables, and figures examine key trends in preprimary, elementary, secondary, and college enrollment as well as high school dropout data. Detailed tables present data on social and economic characteristics of current students, e.g., labor force, income, metropolitan status, race/Hispanic origin.

Educational Attainment in the United States: March 1991 and 1990. *Periodic. Series P-20, No. 462; forthcoming late spring 1992; GPO. For stock number and price, contact CSB.* Report provides description of educational attainment trends in the United States and estimates of high school and college completion rates by State. Detailed tables display data on years of school completed for a variety of socioeconomic characteristics.

1989 Governments Finances, Public Education Finances. *Annual. Series GF-89-10, S/N 003-024-07269-6, $5.50; GPO.* Report updates data from the census of governments and previous annual findings. Data focus on public education spending by Federal, State, and local governments: public education revenue and revenue sources in 1988-1989 and current spending per pupil by public school systems. Data shown for elementary, secondary, and higher education, public school finances for districts with 15,000 or more students.

1990 Census Products

Data from the 1990 census began flowing out of the Census Bureau in December 1990. Much is presently available but the lion's share of products is yet to come. Given the volume of data and the variety of product media, this section provides only highlights and brief descriptions of those products that will be most useful to you. Please note that, at this time, we have not created classroom materials to accompany these data products.

1990 Census Reference Materials

Introduction to 1990 Census Products. *One-time publication. Single copy FREE; CSB.* This

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4-page pamphlet provides a snapshot look at the 1990 census questionnaire, census geographic concepts, and forthcoming 1990 census print and electronic products.

Census '90 Basics. *One-time publication. Single copy FREE; CSB.* This brochure examines various aspects of the 1990 census including planning, data collection, processing and tabulation, geographic tools, and the range of 1990 census data products.

1990 Census Information Brochures. *Periodic series. Single copy FREE; CSB.* Each brochure addresses a specific topic, such as minority groups, ethnicity, the homeless, and guidance on grant preparation. Brochures will be available on a flow basis by the end of 1992.

Census ABC's—Applications in Business and Community. *One-time publication. Single copy FREE; CSB.* This report highlights key information about the 1990 census, illustrates ways resulting data can be used, and gives ideas for matching data to specific needs and projects. Census geographic concepts are discussed.

1990 Census Printed Reports

Despite the rapid rise in the use of online services and CD-ROM's, printed reports are still the most popular medium among Census Bureau users. The only problem with getting data in a published format is the time it takes to print the documents. This is evident in the following list. With few exceptions, the products listed are forthcoming. Some are due out shortly. Others will not be available until 1993. The best way to stay current with product availability and to order them is to contact Customer Services for the newest edition of the *1990 Census Single Publications Sales—Printed Reports Order Form.*
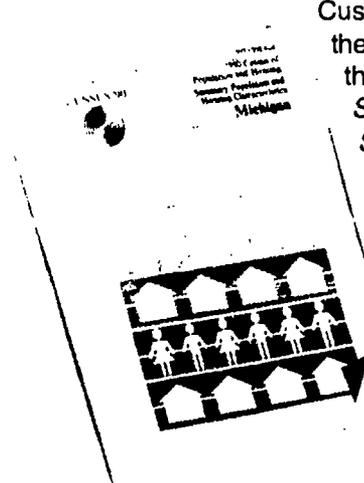
Summary Population and Housing Characteristics. *Series 1990 CPH-1. One report per State, the*

District of Columbia (DC), and U.S. summary. Prices vary by volume: $4-$30; GPO. Report series provides total population and housing unit counts as well as summary statistics on age, sex, race, Hispanic origin, household relationship, type of dwelling, value and rent, owner-renter status, and vacancy characteristics. Data are presented for the State, counties, other local governments (e.g., cities, towns, townships), and American Indian and Alaska Native areas.

Population and Housing Unit Counts. *Series 1990 CPH-2. One report per State, DC, and U.S. summary. Forthcoming 1992.* This series gives total population and housing unit counts for 1990 and previous censuses. Data shown for a variety of geographic areas within each State including counties, local governments and statistically equivalent areas, metropolitan areas, urbanized areas, and summary geographic areas (e.g., urban, rural, metropolitan, and nonmetropolitan residence).

Population and Housing Characteristics for Census Tracts and Block Numbering Areas. *Series 1990 CPH-3. One report per metropolitan area. Separate report for the balance of the State. Forthcoming 1992-93.* Census tracts and block numbering areas are useful subcounty geographic units. This level of geographic focus allows students to put their community and neighborhood under the microscope. The series supplies data on age, race, sex, Hispanic origin, marital status, ancestry, income, occupation, education, migration, commuting, language spoken at home, housing costs, age of housing, owner-renter status, vehicles available, source of water, fuels used—to name just a few.

Population and Housing Characteristics for Congressional Districts of the 103rd Congress. *Series 1990 CPH-4. One report per State and DC. Forthcoming 1993.* Presents population and housing data similar to *1990 CPH-3* noted above. Geographic coverage includes the State, congressional districts, counties, and other local governments of 10,000 or more inhabitants.

Summary Social, Economic, and Housing Characteristics. *Series 1990 CPH-5. One report per State, DC, and U.S. summary. Prices vary by report; GPO.* This companion series to *1990 CPH-1* furnishes summary data from the long-form (sample) questionnaire including income, education, occupation, labor force, migration, journey to

work, fertility, heating fuel, source of water, vehicles available, and shelter costs.

General Population Characteristics. *Series 1990 CP-1. One report per State, DC, and U.S. summary. Separate reports for American Indian and Alaska Native areas, metropolitan areas, and urbanized areas. Forthcoming summer 1992.* Series presents detailed statistics on age, sex, race, Hispanic origin, marital status, and household relationship for the State, counties, local governments of 1,000 or more inhabitants, metropolitan areas, urbanized areas, and American Indian ·and Alaska Native areas (by State).

Social and Economic Characteristics. *Series 1990 CP-2. One report per State, DC, and U.S. summary. Separate reports for American Indian and Alaska Native areas, metropolitan areas, and urbanized areas. Forthcoming 1993.* Reports focus on data from the long-form (sample) questionnaire (noted above). Geographic coverage includes the State (plus urban-rural totals and others), counties, local governments of 2,500 or more residents, metropolitan areas, urbanized areas, and American Indian and Alaska Native areas (by State).

General Housing Characteristics. *Series 1990 CH-1. One report per State, DC, and U.S. summary. Separate reports for American Indian and Alaska Native areas, metropolitan areas, and ur-*

To Order:

CSB:
Customer Services Branch
Data User Services Division
Bureau of the Census
Washington, DC 20233-8300
301-763-4100

TEAMS:
Training, Education, and Marketing Staff
Data User Services Division
Bureau of the Census
Washington, DC 20233-8300
301-763-1510

GPO:
Superintendent of Documents
Government Printing Office
Washington, DC 20402-9325
202-783-3238

For your convenience, reproducible order forms are on the last two pages of this booklet.

banized areas. Forthcoming summer 1992. Statistics on types of housing, value and rent, number of rooms, owner-renter status, and vacancy characteristics presented for the State, counties, local governments of 1,000 or more residents, metropolitan areas, urbanized areas, and American Indian and Alaska Native areas (by State).

Detailed Housing Characteristics. *Series 1990 CH-2. One report per State, DC, and U.S. summary. Separate reports for American Indian and Alaska Native areas, metropolitan areas, and urbanized areas. Forthcoming 1993.* Reports focus on data from the long-form (sample) questionnaire (noted above). Geographic coverage includes the State (plus urban-rural totals and others), counties, local governments of 2,500 or more residents, metropolitan areas, urbanized areas, and American Indian and Alaska Native areas (by State).

1990 Census Electronic Products

Decennial census files are massive. Until recently, the use of census data in an electronic format was restricted to mainframe and mini-computer users. The advent of CD-ROM technology and online services is revolutionizing the use of census data and how the Census Bureau is delivering its data products. CENDATA™ (our online service) and CD-ROM's have become a mainstay of data dissemination.

The Census Bureau has a growing selection of CD-ROM's. Here, we have isolated a few of these 1990 census products for you. Elsewhere in the Guide, we have identified other electronic products. To help you locate them, see *A Menu of Electronic Products* on page 9.

CENDATA™, the Census Bureau's online information service, is available from two online service vendors, *CompuServe* (800-848-8199) and *DIALOG Information Services* (800-334-2564). It offers current demographic and economic data about the Nation and is the fastest way to access the newest Census Bureau data. The service contains daily press releases, monthly economic indicators, and socioeconomic, agriculture, business, construction and housing, foreign trade, governments, manufacturing, and population data. Data are presented for the Nation, States, metropolitan areas, and some counties and cities. A portion of the data from the 1990 census is stored on CENDATA™ under menu category 18—*1990*

Census Information. *DIALOG* also provides 1990 census data for census tracts and block numbering areas (subcounty geographic units).

CENDATA™ Informational Booklet. *One-time publication. Single copy FREE; CSB.* Introduces CENDATA™. The booklet describes what demographic and economic data are available online and furnishes basic tips on the use of the service.

Census, CD-ROM, and You! New Horizons for Microcomputer Users of Census Bureau Data. *One-time publication. Single copy FREE; CSB.* Booklet explains the advantages of CD-ROM technology as a medium for using Census Bureau data. It describes hardware and software requirements and data released on compact disc. This booklet focuses on the 1990 census and the 1987 economic and agriculture censuses.

Guide to Census Bureau Data on Compact Disc. *One-time publication. Single copy $10; TEAMS.* Designed for one of our courses, *Census Bureau Data on CD-ROM,* this guide provides an explanation of hardware and software requirements for using Census Bureau electronic products. The guide describes GO software (basic data retrieval software found on most Census Bureau CD-ROM's), its fea-

A Menu of Electronic Products

There's a smorgasbord of electronic data products and tools listed in this Guide. (Note: This is only a partial listing of the electronic products available from the Census Bureau.)

Note: Nearly all of the above CD-ROM's are in a dBase III + /IV™ format. With the exception of the *1987 Economic Censuses CD-ROM's* (which contain EXTRACT software), all of these products come with GO software for easy querying and data access. EXTRACT and GO are designed for use in an IBM environment. No other software is available from the Census Bureau at this time.

tures, and its use. A variety of data manipulation exercises using dBase III+/IV™ are included. Comes with a CD-ROM demonstration diskette (5.25-inch IBM-formatted floppy) with GO software and a selection of 1990 census data for geographic areas in Wyoming.

1990 Census—Basic Data (Nation to Counties) on CD-ROM. *Every 10 years. S/N STF1C, $150; CSB.* Provides a look at data summarized from the 1990 census short-form questionnaire. Includes statistics on total population, age, sex, race, Hispanic origin, number and type of housing units, value and rent, owner-renter status, and basic characteristics of households. The single CD-ROM supplies summaries for the following geographic areas: the Nation, regions (e.g., the Midwest), divisions (e.g., New England), States, counties, other local governments of 10,000 or more residents, metropolitan areas, urbanized areas, and American Indian and Alaska Native areas.

1990 Census—Detailed Data (Nation to Counties) on CD-ROM. *Every 10 years. S/N STF3C; Forthcoming 1993; CSB.* While this product provides the same geographic content as the basic data set noted above, the data content is much richer. This file draws from summaries of the long-form questionnaire. Provides data on place of birth, education, ancestry, migration, commuting, occupation, labor force, income, age of housing, heating fuels, availability of vehicles, and shelter costs (such as taxes and insurance).

1990 Census—Detailed Data (ZIP Codes) on CD-ROM. *Every 10 years. S/N STF3B; Forthcoming 1993; CSB.* This file presents the same data coverage as the previous product, but the data summaries are for 1990 five-digit ZIP Codes within each State and county.

1990 Census Geographic Products

Maps and More—Your Guide to Census Bureau Geography. *One-time publication. Forthcoming fall 1992; Single copy FREE; CSB.* This 16-page tabloid provides a complete introduction to Census Bureau geography with definitions of geographic entities, how various boundaries are established, the TIGER System, samples of various maps, geographic entities reported in data products.

1990 Population Distribution Map. (Also known as the "Night-time Map.") *Every 10 years. Approxi-*

mate size 3' x 4'. Forthcoming 1993; GPO. Contact CSB for price and ordering information. Population distribution is depicted across the country using white dots on a blue-black field (as if every households' lights are on). The map shows no State boundaries or city names. Some mountain ranges, river valleys, and transportation routes are evident because of settlement patterns. The forthcoming *Teaching Resource 5* will provide a variety of classroom ideas to use with this map.

1990 Race and Hispanic-Origin Population Distribution Maps (wall-size editions). *One-time publication. Approximate size 3' x 4'. Forthcoming 1992; GPO. Contact CSB for prices and ordering information.* Series of four maps (sold separately) depicting the distribution of the Black; American Indian, Eskimo, and Aleut; Asian and Pacific Islander; and Hispanic populations by county. Distribution is presented as a percent of total county population using a series of color ranges.

1990 Urban and Rural Population Distribution Map. *Every 10 years. Approximate size 3' x 4'. Forthcoming 1993; GPO. Contact CSB for price and ordering information.* This map shows State and county (or statistical equivalent) boundaries. Through the use of various colors/patterns, the map shows the distribution of the Nation's rural and urban populations. It also is called the "Daytime Map."

Metropolitan Statistical Areas: June 30, 1990. *Periodic. Approximate size 3' x 4'. Series GE-50, No. 90, S/N 003-024-07228-9, $5.50; GPO.* Based on areas established by the Office of Management and Budget, this map displays all metropolitan areas in the United States and Puerto Rico as of June 30, 1990—those reported in the 1990 census. Highlights population size and extent of urbanized areas for each metropolitan area.

Congressional Districts of the 103rd Congress of the United States. *Periodic. Approximate size 3' x 4'. Forthcoming 1993; GPO. Contact CSB for price and ordering information.* The 103rd Congress will begin in January 1993. This map displays the boundaries of the new congressional districts (based on 1990 census counts) and gives students a graphic picture of the end result of the redistricting process. Number of Representatives by State also is presented in tabular form. Shows maps for Puerto Rico and the outlying areas.

PERSONS OF HISPANIC ORIGIN AS A PERCENT OF TOTAL POPULATION: 1990
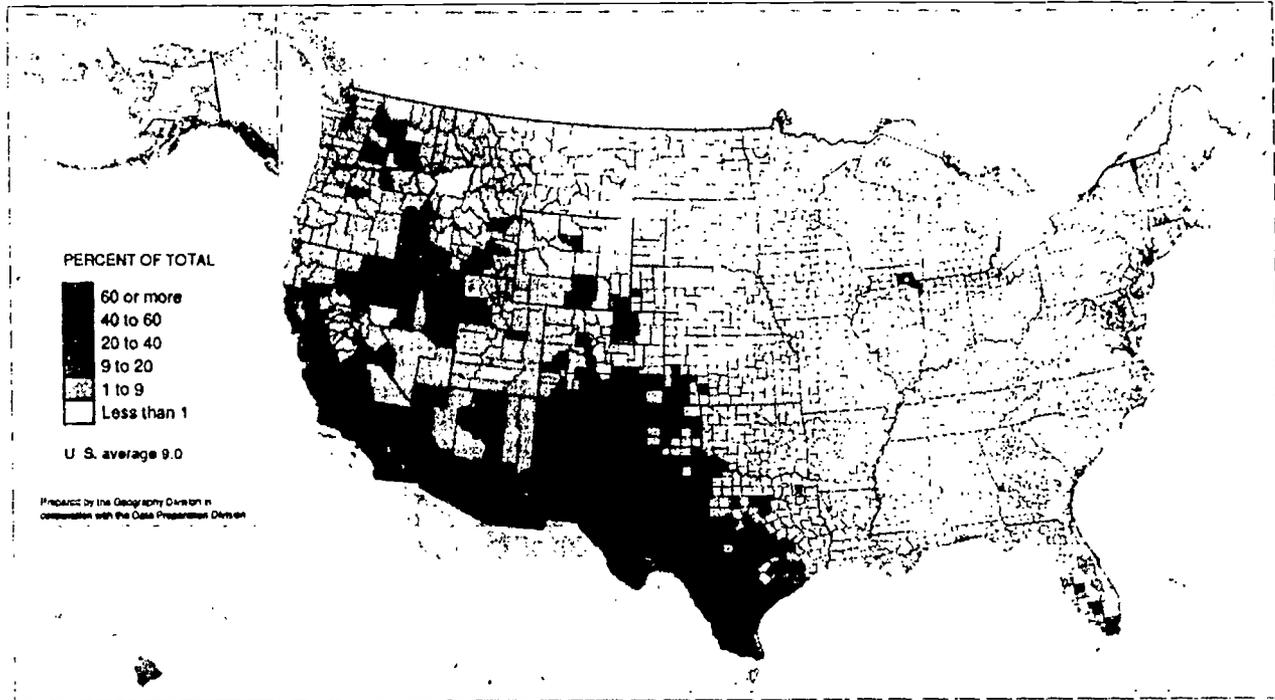
PERCENT OF TOTAL

- 60 or more
- 40 to 60
- 20 to 40
- 9 to 20
- 1 to 9
- Less than 1

U.S. average 9.0

Prepared by the Geography Division in cooperation with the Data Preparation Division

U.S. Department of Commerce Economics and Statistics Administration Bureau of the Census

Boundaries are as of January 1, 1990

1990 Race and Hispanic-Origin Population Distribution Maps (page-size editions). *One-time publication. Size 8" x 11". Single copy FREE, additional copies $0.25 each; TEAMS. Supply is limited.* Page-size versions of the wall maps listed on page 10. Suitable for lamination. Order the wall maps for in-class discussion and a classroom set of smaller maps for student analysis. See order form for discount information. Note: The wall- and page-size editions of the American Indian, Eskimo, and Aleut maps will be available November 1992.

1990 Census Audio-Visual Products

Profile of the Black/African-American Population. *One-time product. $40; TEAMS.* Slide package provides information from the 1990 census on population growth and the geographic distribution of the Black/African-American population. Additional information is drawn from recent Census Bureau surveys. The package includes 41 color 35mm slides and a presentation text.

1990 Census Profile of the American Indian, Eskimo, and Aleut Population. *One-time product. $35; TEAMS.* Package explores recent and historical population change and geographic distribution of American Indians, Eskimos, and Aleuts. Includes 32 color slides and presentation text.

Profile of the Asian and Pacific Islander Population: 1990. *One-time product. $40; TEAMS.* This package of 39 color slides and pre-

sentation narrative examines national, State, and regional growth rates during the 1980's; States with the largest Asian and Pacific Islander populations; and State rankings.

Profile of the Hispanic Population of the United States: 1980-1990. *One-time product. $40; TEAMS.* The 41 color slides and presentation text help illustrate population growth over the decade, States with the largest Hispanic-origin populations, and the distribution of specific Hispanic-origin groups. This package is based on 1990 census data and can be used with *Hispanics in the United States: 1990* (see below).

Hispanics in the United States: 1990. *One-time product. $25; TEAMS.* This slide set (23 slides) provides data from the *March 1990 Current Population Survey*, including a series of socioeconomic measures of this population.

BEST COPY AVAILABLE

13

A Taste of the Census Bureau

The products in this section are statistical compendia. They provide a cross section of the data available from the Census Bureau as well as a sample of statistical information from other data organizations in the United States.

Statistical Compendia Printed Reports

Statistical Abstract of the United States: 1992. *Annual since 1878. Paper, S/N 003-024-08159-8, $29; clothbound S/N 003-024-08160-1, $34; GPO. For expedited delivery service contact National Technical Information Service (NTIS); 703-487-4650; paper, S/N PB92-169069ADS, $29 plus handling; clothbound, S/N PB92-169051ADS, $34 plus handling.* This is the most comprehensive single-volume document produced by the Census Bureau. Summary data on over 30 topics—covering the demographic, social, economic, and political organization of the United States— make this an excellent reference. This edition features over 1,400 tables and charts, State rankings for 60 selected data items, and a guide to reference sources.

1992 Statistical Abstract Poster. *Annual. Single copy FREE; TEAMS.* The multi-color poster gives a graphic sample of the kinds of data available in the *1992 Statistical Abstract.*

USA Statistics in Brief: 1992. *Annual. Single copy FREE; CSB.* This pocket-sized product is a sampler from the *1992 Statistical Abstract.* It provides some time-series data. The information presented is primarily for the Nation but selected data appear for all States and the 45 largest metropolitan areas.

State and Metropolitan Area Data Book: 1991. *Every 5 years. S/N 003-024-07259-9, $26; GPO. Also, available from NTIS (see above) S/N PB91-212-639, $26 plus handling.* This compendium contains information on a wide array of topics. Data on birth rates, property taxes, motor vehicle accidents, population, housing, employment, and other subjects are but a sample of the information available. Information is grouped by State (over 1,600 data items for each State) and metropolitan area (224 subjects for each metropolitan area and 89 data items for each component county). There also are 89 data items for the central cities of metropolitan areas. Note: The 1992 update of this publication is forthcoming in the fall of 1992. Contact CSB for stock number and price.

County and City Data Book: 1993. *Every 5 years. Forthcoming early 1993; GPO. Contact CSB for stock number and price.* The *County and City Data Book* (over 1,000 pages) provides a complete demographic, economic, and social profile for the Nation, States, counties, and nearly 1,000 places. The volume includes scores of data items (such as population and population density, climate, bank deposits, crime, race, education, labor force, age, agriculture). Rankings are provided for cities and counties on selected characteristics.

Historical Statistics of the United States From Colonial Times to 1970. *Infrequent. S/N 003-024-00120-0, $56; GPO.* The two-volume set contains more than 12,500 statistical time series on subjects such as population, immigration, agriculture, labor force, manufactures, and energy. One chapter is devoted to data covering the colonial and pre-Federal period.

State Profile: 1992. *Annual. Single copy FREE; TEAMS.* Each State-specific 3-page profile (from the *1992 Statistical Abstract*) provides data on population, housing, vital statistics, health, education, crime, social insurance, labor force and income, banking and business, and agriculture. Rankings of data are provided for some items.

Metropolitan Area Profile: 1991. *Infrequent. Single copy of your metropolitan area FREE; TEAMS.* There is one report for each of the 281 metropolitan areas in the Nation (as defined on

June 30, 1989). These 2-page profiles (from the *1991 State and Metropolitan Area Data Book*) provide data on population, households, vital statistics, health, education, crime, income, labor force and pay, Federal funds and grants, manufacturing, wholesale and retail trade, and service industries. Rankings of metropolitan areas and data for the United States are provided for some items.

Statistical Compendia Electronic Products

1992 Statistical Abstract (CD-ROM). *Annual. Forthcoming late fall 1992; $50; CSB.* Beginning with the 1992 edition of the *Statistical Abstract*, this annual product is available also on compact disc. The electronic version is a reference product rather than a data base product. Subject query and table retrieval are menu-easy with self-contained software.

State and Metropolitan Area Data Book: 1991 (floppy diskettes). *Infrequent. Sampler diskette FREE; three high-density diskettes $78; CSB.* The data book also is available on three 5.25- or 3.5-inch diskettes formatted for IBM-compatible computers. Data files are recorded in ASCII format with comma-delimited fields. The diskettes also contain a user-friendly utility program for displaying and extracting data. A program for the automatic conversion of ASCII files to dBase III+/IV™ format is included.

USA Counties (CD-ROM). *Annual. $150; CSB.* This is the only time-series data set of its kind at the Census Bureau. It provides over two decades of data about every county in the Nation. Topics include population, vital statistics, agriculture, manufacturing, crime, education, elections, climate, and others. Like other CD-ROM's from the Census Bureau, this one provides access and retrieval software.

County and City Data Book: 1993 (CD-ROM and floppy diskettes). *Every 5 years. Forthcoming early 1993; CSB.* This data book also is available on IBM-formatted diskettes (5.25" and 3.5") and on compact disc. The CD-ROM's access and retrieval software takes you through menu screens as you pick the data and geography of your choice.

Statistical Compendia Audio-Visual Products

State Ranking Maps From the 1991 Statistical Abstract (slide package). *Annual. $25; TEAMS.* This package contains 23 map slides depicting the geographic distribution c various data including population, infant mortality, education, crime, agriculture, business and income. A brief narrative describing the data is included. Note: A 1992 edition of these slides is forthcoming in fall 1992.

The Other 9 Years

As we mentioned earlier, the Census Bureau doesn't conduct only a decennial census of population and housing. We gather, analyze, and report data on a wide range of topics—crops, livestock, local taxes and revenues, retail establishments, and many others. This section of the "Instructional Resources Guide" gives you a peek into what we do during the rest of the decade. We can introduce only a sample of the data products available. We have listed several reports (produced in "the other 9 years") that relate specifically to education in the *Instructional Resources, Education Reports, and Related Products* segment on page 4.

Agriculture Reference Materials

Guide to the 1987 Census of Agriculture and Related Statistics. *Every 5 years. FREE; Agriculture Division, 800-523-3215.* Guide provides

in-depth overview on key agriculture data collection efforts conducted by the Census Bureau including the *1987 Census of Agriculture, 1988 Census of Horticultural Specialties, 1988 Farm and Ranch Irrigation Survey*, and *1988 Agricultural Economics and Land Ownership Survey*. Discusses other related Census Bureau statistics available (e.g., *County Business Patterns, Foreign Trade, Enterprise Statistics*, and the *Censuses of Population and Housing and Governments*.) It also examines geographic detail, history, and data collection procedures and provides a listing of contacts.

Agriculture Printed Products

Agricultural Atlas of the United States.
Every 5 years. Series AC87-S-1, vol. 2, part 1, S/N 003-024-06857-5, $21; GPO. This atlas contains 306 maps, including choropleth maps using a sequence of colors and shades to show spatial patterns and dot distribution maps. Comes with two overlay transparencies to help locate county outlines.

America Agriculture Series (Part 4), Highlights of U.S. Agricultural Activity. *One-time publication. Series AG88-PP-4. FREE; Agriculture Divi-*

sion, 800-523-3215. Supply is limited. One-of-a-kind booklet combines a range of Census Bureau data related to U.S. agricultural activity, including agriculture, manufacturing, exports and imports, wholesale trade, and retail trade. Booklet contains graphs, charts, and short text.

Characteristics of Agriculture in the United States. *One-time publication. Series AC87-BR-1. FREE; Agriculture Division, 800-523-3215.* Using maps, charts, graphs and pictures, this four-color brochure gives an overview of U.S. agriculture.

1987 Census of Agriculture, Ranking of States and Counties. *Every 5 years. Series AC87-S-3, vol. 2, part 3, S/N 003-024-06859-1, $7; GPO.* Using data from the *1987* and *1982 Censuses of Agriculture*, this report ranks leading States and counties on selected measures of agriculture such as value of products sold, and quantity of livestock, poultry, field crops, vegetables, fruits, and nuts.

1987 Census of Agriculture, Geographic Area Series Reports. *Every 5 years. One report per State, territory, and U.S. Prices vary by volume: $3-$31. Contact CSB for price and stock number. U.S. summary report—AC87-A-51, S/N 803-010-*

Land in Farms as Percent of Land Area: 1987
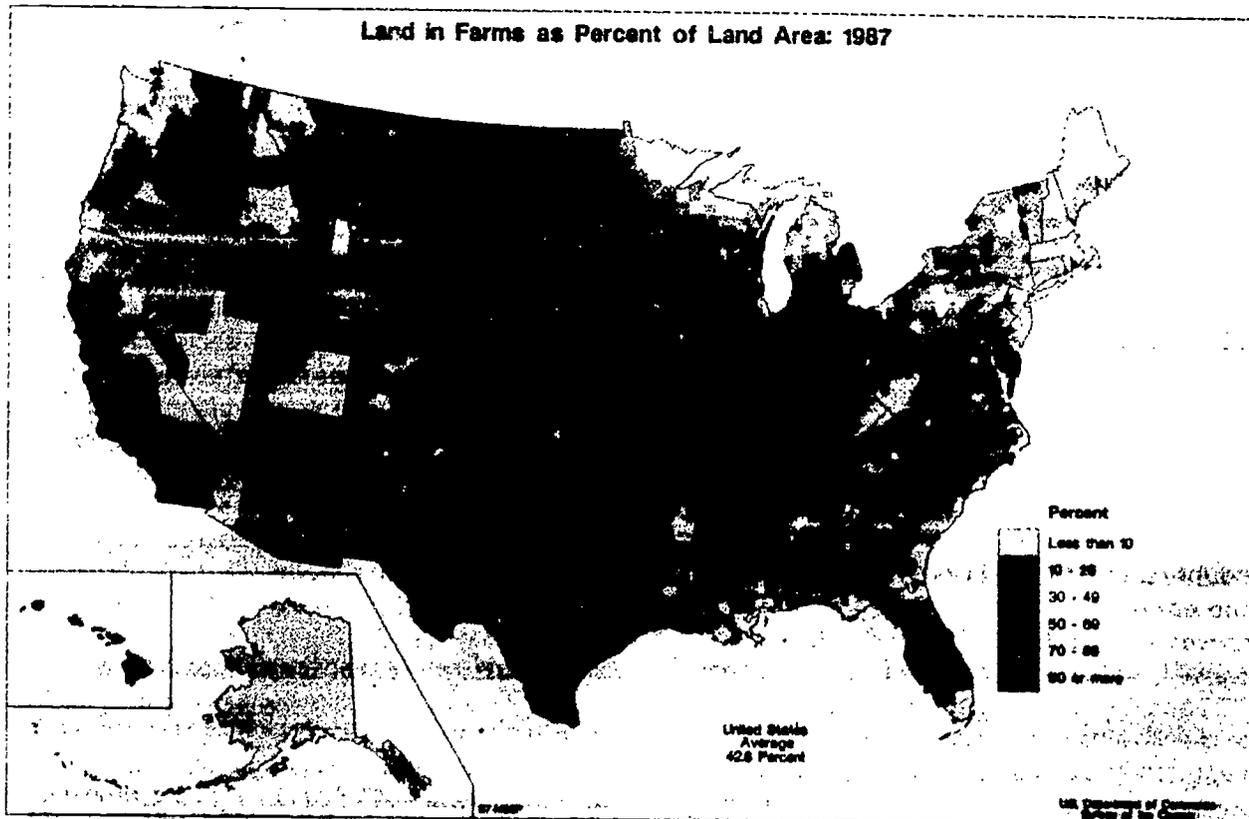
00051-0, $21; GPO. Data available for the Nation, States, selected territories, and counties. These reports provide information on farms, land in farms, and land use and irrigated land; crop production and value of sales; livestock and poultry inventories and sales; selected characteristics of farms operated by minority groups, expenses; loans and payments; farm related income; and more.

Agriculture Electronic Products

1987 Census of Agriculture (Nation to Counties) on CD-ROM. *Every 5 years. Geographic Area Series, vol. 1, $150; CSB.* This compact disc contains 1987 and 1982 data for the United States, States, and counties. The disc also has historical county data for 1982 and 1978. Some data items include number of farms, land in farms, production expenditures, operator characteristics, and other agricultural items. Access the data using the GO software provided on the CD-ROM or by using your data base software.

Agriculture Audio/Visual Products

Characteristics of Agriculture in the United States: 1987. *One-time product. $40; TEAMS.* Thirty-nine slides illustrate the many facets of farm operation. Some items included are land use, net cash return from agricultural sales. irrigation methods, and livestock inventories: 1959 to 1987. This slide package is a companion to the above-noted brochure *Characteristics of Agriculture in the United States.*

Economic Reference Materials

Guide to the 1987 Economic Censuses and Related Statistics. *Every 5 years. Single copy FREE, additional copies $5: CSB.* Excellent introduction to the wealth of Census Bureau economic data. The guide furnishes an extensive look at the variety of data sets included under the umbrella of "Economic Censuses," from retail trade to mining, and under the heading "Economic Surveys." Covers scope, content, geography, and procedures of data collection efforts; uses of the resulting data; the Standard Industrial Classification and other classification systems; and publication media.

Economic Printed Reports

County Business Patterns: 1989. *Annual. Series CBP-89. One report for each State, District of Columbia, Puerto Rico, and the United States. Prices vary by volume: $2.50-$18. Contact CSB for price and stock number. U.S. summary report—CBP-89-01, S/N 803-045-00001-1, $5.50; GPO. County Business Patterns* presents economic data every year for States and counties. Data presented on the number of establishments, employees, payrolls, and establishments by employees, payrolls, and the number of establishments by employment-size class. The U.S. summary includes data by four-digit Standard Industrial Classification codes. It also includes totals for States.

Economic Electronic Products

County Business Patterns: 1989 (CD-ROM). *Annual. Series CBP-88-89, $150; CSB.* The data on the *County Business Patterns CD-ROM* are similar to those in the printed reports but more extensive, including all industries with one or more employees in each county for 1988 and 1989. Access the statistics using GO or EXTRACT software provided or your data base package.

1987 Economic Censuses (Nation to Places) on CD-ROM. *Every 5 years. Series EC87-1D, $150; CSB.* This single CD provides a comprehensive collection of economic data from the Census Bureau. The data can be retrieved using either EXTRACT or Profile1 software included on

A Note on GO and EXTRACT Software on Census Bureau CD-ROM's

We provide access and retrieval software on most of our CD-ROM's. The *1987 Economic Censuses CD-ROM's* contain a software package known as EXTRACT for manipulating data. The compact discs listed elsewhere in the "Guide" come with GO software for easy querying and data access. (EXTRACT also works with the other Census Bureau CD-ROM's, but is not included on those discs.) EXTRACT and GO are designed for use in an IBM environment. No other software is available from the Census Bureau at this time. Nearly all Census Bureau CD-ROM's are presented in a dBase III + /IV™ format. You can operate them using dBase III + /IV™ or a similar package.

the CD. Profile1 generates a brief, preformatted report for any State or county. EXTRACT provides flexible retrieval, display, and extraction for any of the data on the CD. Data items include employment, payroll, sales, and expenses for retail, wholesale, manufacturing, and transportation establishments and for service, mineral, and construction industries. Data are presented for the United States, States, metropolitan areas, counties, and selected places with 2,500 or more establishments.

1987 Economic Censuses (ZIP Code Statistics) on CD-ROM. *Every 5 years. Series EC87-2B; Forthcoming 1992; $150; CSB.* This special disc combines retail, manufacturing, and service industry, and agricultural statistics similar to those presented above for larger geographic areas. Use EXTRACT or your own data base software to manipulate the files. Data are presented for the United States. States, and ZIP Codes.

Economic Statistics Audio/Visual Products
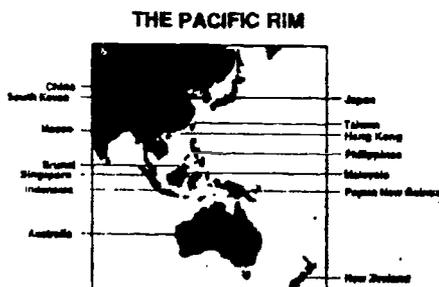
THE PACIFIC RIM

Trade With the Pacific Rim. *Onetime product. $14; TEAMS.* This 14-slide package highlights data on U.S. import and export activity and trade with Pacific Rim countries. Data are shown for 1980 and 1990. A 4-page narrative, accompanies these slides and explains the data.

Governments Reference Materials

Guide to the 1987 Census of Governments. *Every 5 years. S/N 003-024-06889-3, $12; GPO.* The census of governments is little known to the American public. This every-5-year undertaking and subsequent annual surveys provide a look at Federal and, especially, State and local government activities ranging from government organization and taxable property values to government finances and government employment. This guide provides background information on the various products available from the 1987 census.

Governments Printed Reports

1987 Census of Governments, Public Employment, Compendium of Public Employment. *Every 5 years. Series GC87(3)-2, vol. 3, No. 2, S/N 003-024-06876-1, $25; GPO.* An extensive survey of public sector employment and payrolls for full-time employees is provided for Federal, State, and local governments. Local government data are presented by type of government and population-size group for counties, municipalities, townships, school districts, and other governments such as water districts and transit authorities. Data are shown for elementary and secondary, and higher education, and by instructional employees and other education.

1987 Census of Governments, Government Finances, Compendium of Government Finances. *Every 5 years. Series GC87(4)-5, vol. 4, No. 5, S/N 003-024-06883-4, $30; GPO.* Where do tax dollars come from and what are they used for? This publication is a comprehensive summary of findings on governmental finances for fiscal year 1987. It shows aggregate data for Federal, State, and local governments, by type of government. Financial data on revenue, expenditure, indebtedness, etc. are presented for State and local governments.

1987 Census of Governments, Graphic Summary. *Every 5 years. Series GC87(5)-4, vol. 5, No. 4; Forthcoming summer 1992; GPO. Contact CSB for price and stock number.* This summary report depicts statistics from each of the census reports in charts, tables, histograms, and other graphic formats.

U.S. and International Demographic Printed Reports

How We're Changing, Demographic State of the Nation: 1992. *Annual. Series P-23, No. 177, S/N 803-005-10030-8, $1; GPO. Contact CSB for stock number.* This 4-page statistical brief, including graphics and text, highlights major findings from a number of Census Bureau surveys. This brief features information about voting rates, children's well-being, computer ownership and use, child support, age at first marriage, pension plans, movers, median family income, poverty, and renters.

American Housing Survey Data Chart: 1989.
Annual. Single copy FREE, additional copies $2; American Housing Survey Staff, 301-76 8551.
How much does it cost to live on my own? This approximately 2' x 3' wall chart contains data items to help your students answer that question. They can examine costs such as electricity, fuels, rents, mortgages. Additional data focus on housing type, value, owner-renter status, age of housing, and reasons for moving.

World Population Profile: 1991. *Periodic. Series WP91, S/N 003-024-08074-5, $9.50; GPO.*
 This report presents facts about changes in our global population, including statistics on infant mortality, life expectancy, contraceptive use, and city populations in individual countries and world regions.

Global Aging: Comparative Indicators and Future Trends. *One-time publication. Single copy FREE; Office of Demography, National Institute on Aging, Gateway Building, Rm. 2C-234, 7201 Wisconsin Avenue, Bethesda, MD 20892, 301-496-3136 or Center for International Research, 301-763-4221. Supply is limited.* This 17" x 22" poster (multi-color charts, tables, maps, and text) presents data for the projected increase in the world's age 60-and-over population (1991 to 2020), the world's oldest countries (1991), and other statistics.

Projections of the Population of the United States by Age, Sex, Race, and Hispanic Origin: 1992 to 2050 and Projections of the Population of States by Age, Sex, Race, and Hispanic Origin: 1992 to 2020. *Periodic. Series P-25. Forthcoming fall 1992; GPO. Contact CSB for prices and stock numbers.* The titles of these two separate reports identify their content. The data in the reports are the first Census Bureau projections

based on 1990 census findings and latest trends/ assumptions in fertility, mortality, and migration.

Staying Up to Date and Other Reference Materials

Factfinder for the Nation. *Periodic series. Prices vary, single copies FREE; CSB. Factfinders* give topical overviews and explanations of Census Bureau products, programs, and concepts. Below is a partial listing. Note: *Factfinders* contain no data. They provide background on the data series and related statistics and on how and where to access them.

Factfinder 1—Statistics on Race and Ethnicity	$0.40
Factfinder 2—Availability of Census Records About Individuals	$0.25
Factfinder 3—Agricultural Statistics	$0.25
Factfinder 4—History and Organization [of the Census and the Census Bureau]	$0.40
Factfinder 5—Reference Sources	$0.40
Factfinder 6—Housing Statistics	$0.40
Factfinder 7—Population Statistics	$0.40
Factfinder 8—Census Geography: Concepts and Products	$0.40
Factfinder 9—Construction Statistics	$0.25
Factfinder 10—Retail Trade Statistics	$0.25
Factfinder 11—Wholesale Trade Statistics	$0.25
Factfinder 12—Statistics on Service Industries	$0.25
Factfinder 13—Transportation Statistics	$0.25
Factfinder 14—Foreign Trade Statistics	$0.25
Factfinder 15—Statistics on Manufactures	$0.30
Factfinder 16—Statistics on Mineral Industries	$0.25
Factfinder 17—Statistics on Governments	$0.25
Factfinder 18—Census Bureau Programs and Products	$1.00
Factfinder 22—Data for Communities	$0.75

Census Catalog and Guide. *Annual. 1992 Edition forthcoming summer 1992; GPO. Contact CSB for stock number and price.* Furnishes the best source of information about Census Bureau products, programs, and services. The catalog provides product abstracts which include time coverage, geographic scope, and subject content, along with ordering information. 'It also gives a telephone contact listing for various subject specialists at the Census Bureau; names and telephone numbers of over 1,750 members of the State Data Center network (see *Where to Get*

Help for explanation); listings for Federal and Census Bureau depository libraries; and information about other Federal agencies and how to obtain their data.

Monthly Product Announcement. *Monthly. FREE; CSB.* Lists Census Bureau publications, maps, data files, and other products that became available in the previous month. Ordering information accompanies each entry. The *Announcement* also gi es a "Look Ahead" to products to be released in the near future. It is the principal means of updating the Catalog. It also is available online through CENDATA™ (see earlier entry under *1990 Census Products).*

Census and You. *Monthly. $18 per year; GPO. Si .nple copy FREE, CSB.* This newsletter contains articles describing newly issued reports, data collection efforts being planned (such as the 1992 Economic Censuses), new data files, and sources of assistance for data users. In addition to describing products, it highlights and provides some analysis of data from these reports. A monthly feature looks at key economic indicators for the Nation.

Where to Get Help

Census Bureau Regional Offices

Information specialists in our 12 regional offices are ready to help you. They can help you locate census information for your community and State, provide you with technical assistance, and point you toward other sources of information. Each entry lists the area served by that center.

Atlanta
101 Marietta Street, NW
Suite 3200
Atlanta, GA 30303-2700
404-730-3833
Alabama, Florida, Georgia

Boston
Room 553
10 Causeway Street
Boston, MA 02222-1084
617-565-7078
Connecticut, Maine,
New Hampshire,
Massachusetts, New York-part,
Rhode Island, Vermont

Charlotte
Suite 505
222 South Church Street
Charlotte. NC 28202-3220
704-344-6144
District of Columbia, Kentucky,
North Carolina. South Carolina,
Tennessee, Virginia

Chicago
Room 527
175 West Jackson Blvd.
Chicago, IL 60604-2689
312-353-0980
Illinois, Indiana, Wisconsin

Dallas
Room 210
6303 Harry Hines Blvd.
Dallas, TX 75235-5269
214-767-7105
Louisiana, Mississippi, Texas

Denver
6900 W. Jefferson Ave.
P.O. Box 272020
Lakewood, CO 80227-9020
303-969-7750
Arizona, Colorado, Nebraska
New Mexico, North Dakota
South Dakota, Utah, Wyoming

Detroit
27300 West 11 Mile Rd.
Suite 200
Southfield, MI 48034-2244
313-354-4654
Michigan, Ohio, West Virginia

Kansas City
Gateway Tower II, Suite 600
400 State Avenue
Kansas City, KS 66101-2410
913-236-3711
Arkansas, Iowa, Kansas,
Minnesota, Missouri, Oklahoma

Los Angeles
15350 Sherman Way
Suite 300
Van Nuys, CA 91406-4224
818-904-6339
California

New York
Jacob K. Javits Federal Bldg.
26 Federal Plaza
Room 37-130
New York, NY 10278-0044
212-264-4730
New York-part,
Puerto Rico, Virgin Islands

Philadelphia
First Floor
105 South 7th Street
Philadelphia, PA 19106-3395
215-597-8313
Delaware, Maryland,
New Jersey, Pennsylvania

Seattle
101 Stewart Street, Suite 500
Seattle, WA 98101-1098
206-728-5314
Alaska, Hawaii, Idaho, Montana,
Nevada, Oregon, Washington, and
Pacific outlying areas

State Data Centers

State Data Centers are agencies that provide users with access to census data, training, and technical assistance in specific States. Depending upon the center and the request, services may be free of charge or have an associated cost. There are State Data Centers in every State plus the District of Columbia, Puerto Rico, the Virgin Islands, and Guam. State Data Centers and their affiliates, which total about 1,700, are sources of State and local data. Below is a listing of agencies in charge of all 54 State Data Centers and sister agencies that focus on economic data—the Business and Industry Data Centers.

State Data Center Program Lead Agencies

Alabama
Center for Business and
    Economic Research
University of Alabama
Box 870221
Tuscaloosa, AL 35487-0221
`Ms. Annette Watters
205-348-2953

Alaska
Alaska State Data Center
Research & Analysis
Department of Labor
P.O. Box 25504
Juneau, AK 99802-5504
*Ms. Kathryn Lizik
907-465-4500

Arizona
Arizona Department of
    Economic Security
Mail Code 045Z
1789 West Jefferson St.
Phoenix, AZ 85007
*Ms. Betty Jeffries
602-542-5984

Arkansas
State Data Center
University of Arkansas-Little Rock
2801 South University
Little Rtock, AR 72204
*Ms. Sarah Breshears
501-569-8530

California
State Census Data Center
Department of Finance
915 L Street
Sacramento, CA 95814
*Ms. Linda Gage, Director
916-322-4651
Mr. Richard Lovelady
916-323-2201

Colorado
Division of Local Government
Colorado Department of
    Local Affairs
1313 Sherman Street, Room 521
Denver, CO 80203
*Mr. Reid Reynolds
Ms. Rebecca Picaso
303-866-2156

Connecticut
Policy Development and
    Planning Division
Connecticut Office of Policy
    and Management
80 Washington Street
Hartford, CT 06106-4459
*+Mr. James G. Palma
203-566-8285

Delaware
Delaware Development Office
99 Kings Highway
P.O. Box 1401
Dover, DE 19903
*+Ms. Judy McKinney-Cherry
302-739-4271

District of Columbia
Data Services Division
Mayor's Office of Planning
Room 570, Presidential Bldg.
415 12th Street, N.W.
Washington, DC 20004
*Mr. Gan Ahuja
202-727-6533

Florida

Florida State Data Center
Executive Office of the Governor
Office of Planning & Budgeting
The Capitol
Tallahassee, FL 32399-0001
*Mr. Steve Kimble
904-487-2814

Bureau of Economic Analysis
Florida Department of Commerce
107 East Gaines Street
315 Collins Building
Tallahassee, FL 32399-2000
+Ms. Sally Ramsey
904-487-2568

Georgia

Division of Demographic &
    Statistical Services
Georgia Office of Planning
    and Budget
254 Washington Street, S.W.,
Room 640
Atlanta, GA 30334
*Ms. Marty Sik
404-656-0911

Guam

Guam Department of Commerce
590 South Marine Drive
Suite 601, 6th Floor GITC Building
Tamuning, Guam 96911
*Mr. Peter R. Barcinas
671-646-5841

Hawaii

Hawaii State Data Center
Department of Business,
Economic Development, & Tourism
Kamamalu Building, Room 602A
220 S. King Street, Suite 400
Honolulu, HI 96813
(Mailing Address)
P.O. Box 2359
Honolulu, HI 96804
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Many public libraries; chambers of commerce; city, county, American Indian tribal, Alaska Native, and regional agencies; and similar organizations use Census Bureau data and/or maintain varying levels of Census Bureau data collections. Some of these, especially planning offices, also produce their own demographic and economic data (such as population and housing estimates). These organizations are excellent local data sources. Your State Data Center or Census Bureau regional office can help you pinpoint them.

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CENSUS BUREAU
Teaching Resource 1:   CONGRESSIONAL REDISTRICTING

For Use in Junior High/High School

Overview

Early in 1991, the Census Bureau released a portion of data from the 1990 census. These population figures became the basis for congressional and State and local legislative redistricting across the United States. This lesson involves your students in modeling this process. Although this effort may already be complete in your State, the lesson will engage your class (working in groups) in dividing their State into new congressional districts. To keep the lesson as simple as possible, students will be using 1990 census county-level data, rather than getting into their State's thousands of small census geographic areas — geographic units that are important to defining congressional districts in densely settled areas.

Learning Objectives

Students will —

1. Engage in table reading,

2. Collect and analyze data,

3. Work with geographic concepts and maps,

4. Exercise critical thinking skills and create assumptions about redistricting, and

5. Learn about constitutional and political processes that have implications for an entire decade.

Materials Needed

At a minimum, this lesson requires the following materials:

- **Copy of the Constitution of the United States and the text of the Great Compromise of 1787,**

- **State maps showing county boundaries and names** (or your State's equivalent of counties; e.g., in Virginia, counties and independent cities; in Louisiana, parishes),

- **1990 Population and Number of Representatives, by State** (See page 8 of this *Teaching Resource.*)

- **1990 Census Profile Number 1 — Population Trends and Congressional Apportionment,** which provides a map presentation of congressional representation for the 1990s and the changes since the 1980 census for States and a brief discussion of these changes. The four-page report also supplies a table of population data from the 1990 census and from several earlier censuses. Narrative and graphs are included. A single copy of this report is available FREE from Customer Services, Bureau of the Census, Washington, DC 20233; 301-763-4100; (FAX) 301-763-4794.

- **1990 census redistricting data for counties.** These data are known as the 1990 census P.L. 94-171 counts. From January to March 1991, the Census Bureau delivered these data files to State Governors and legislatures for use in redrawing congressional and State legislative district boundaries. These files contain only a limited amount of statistical information from the 1990 census. They provide counts of the total population, persons age 18 and over, broad racial categories, persons of Hispanic origin, and total housing units. The files carry data for a wide range of geographic areas; i.e., State, counties, county subdivisions, incorporated places, voting districts, census tracts/block numbering areas, block groups, and blocks. These data are available in a number of formats: computer tapes, CD-ROMs for microcomputers, online data bases, and census publications. (See descriptions below.)

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January 1992

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Some of the results of the 1990 census are available in census publications. The county population counts and age, sex, race, and Hispanic origin statistics are available in 1990 Census of Population and Housing – Summary Population and Housing Characteristics (CPH-1). This is a series of publications with one report per State and a U.S. Summary report. This report series provides total population and housing unit counts as well as summary statistics on age, sex, race, Hispanic origin, household relationship, units in structure, value and rent, number of rooms, tenure, and vacancy characteristics. These reports are available from the Superintendent of Documents, Government Printing Office, Washington, DC 20402; 202-783-3238. Stock numbers and prices vary by State. This ordering information is available from the Census Bureau Customer Services Branch as noted above.

The lead agency of the State Data Center system for your State is listed in the Census Bureau publications, Telephone Contacts (April 1991 issue) and Hidden Treasures. If you don't have one of these, call the State and Regional Programs Staff at the Census Bureau (301-763-1580) for the telephone number or address of your State Data Center. When you contact your State Data Center, make sure you specify that you want only COUNTY-level data from the 1990 census redistricting file. Some State Data Centers already have packaged these statistics into handy tables.

CENDATA is the Census Bureau's online information service. It offers current demographic and economic data about the Nation. The service contains daily press releases, monthly economic indicators, product ordering information, and socioeconomic, agriculture, business, construction and housing, foreign trade, governments, manufacturing, and population data. Most data are for the Nation, but State and metropolitan area profiles and some county and city data are available. Data from the 1990 census are stored on CENDATA under menu category 18 – 1990 Census Information. Again, the data and geographic coverage are limited. Generally, data for States, counties, and places are available. DIALOG, one of the current CENDATA vendors, also provides 1990 census data for States, counties, places, census tracts, and block numbering areas.

CENDATA is one of the information files found on CompuServe (800-848-8199) and DIALOG Information Services (800-334-2564). Many public libraries and schools subscribe to these.

■ Colored pencils and calculators

Other resources that are useful to this activity include:

■ Strength in Numbers, a 12-page tabloid-type publication, provides an easy-to-understand guide to the 1990 census redistricting data program. The text supplies background information about the decennial census, census taking, and the uses of the resulting data. The topics of apportionment and redistricting are explained through narratives and graphics. A single copy is available FREE from Census Bureau Customer Services; see above for the address and telephone number.

■ Counting for Representation: The Census and the Constitution, an eight-page booklet, examines the constitutional origin of the census, apportionment and redistricting, the Census Bureau's role in these processes, and changes that have taken place in apportionment methods. The text also provides background on topics such as gerrymandering and the size of the House of Representatives. It is available in a black and white reproducible version and a two-color edition. A single copy is available FREE from Census Bureau Customer Services; see above for the address and telephone number.

- **A Census Bureau Teaching Resource: Using the Congressional Districts of the 100th Congress and Historical Congressional Districts Maps.** This resource provides an overview for the congressional and historical maps listed below. It offers suggestions on classroom activities in geography, civics, history, and other subjects. This Teaching Resource is FREE, but the map product must be purchased separately. (Order the Teaching Resource by name from Customer Services, Bureau of the Census; see above for address and telephone number.)

- **Congressional Districts of the 100th Congress and Historical Congressional Districts Maps.** This product contains six maps (35" x 47"). The first is a large map showing the boundaries for most congressional districts of the 100th Congress (January 1987 to January 1989). This map also shows the boundaries of each State and the boundaries and name of each county (or county equivalent) throughout the United States and the territories under U.S. jurisdiction. The other side of the document contains five smaller maps that allow comparison of congressional districts of the 1st, 25th, 50th, 75th, and 100th Congresses and the governmental unit boundaries within the United States and its territories. (Available from the Government Printing Office as Item GE-50, No. 85, Stock No. 003-024-06228-3, $4.75, Superintendent of Documents, Government Printing Office, Washington, DC 20402, 202-783-3238.)

- News articles and information about State redistricting and current members of the House of Representatives or State legislature.

Getting Started

1. Introduce the concept of representation and the function of the House of Representatives. Point students to Article I, Section 2, of the Constitution and related amendments. Explain the origin of the U.S. census by examining the Great Compromise of 1787. Discuss the census' first function of counting people for the purpose of representation. Use the narrative below to introduce some of these concepts. Counting for Representation: The Census and the Constitution, noted earlier in the **Materials** section, provides additional background information and current issues associated with apportionment and redistricting.

Background on the Decennial Census and Congressional Apportionment

The delegates to the Constitutional Convention in 1787 recognized two reasons for a national count of the population: 1) to distribute the financial burden of the Revolutionary War equally among the people and 2) to apportion members of the House of Representatives to the States. These words in Article I, Section 2 made the U.S. Constitution the first document of its kind in history to require a national census:

> Representatives and direct Taxes shall be apportioned among the several States which may be included within this Union, according to their respective numbers....The actual Enumeration shall be made within three Years after the first Meeting of the Congress of the United States, and within every subsequent Term of ten Years in such Manner as they shall by Law direct.

Although constitutionally planned, taxation based on the census count never did occur. However, with the above words, the decennial census of the United States was born. The first census was taken in 1790. The Bureau of the Census, established as a permanent agency in 1902, counts the population and unofficially calculates the total number of Representatives for each State. The number of Representatives per State is based on three factors:

a. **The population base, as determined by the decennial census.** For the 1990 census, the State population reapportionment totals included the resident population of each State and the overseas military and Federal civilian populations allocated back to individual States. This population totaled 249,632,692

(249,022,783 without the District of Columbia). The original function for this U.S. population total and that for each State is to determine the number of Representatives to be apportioned to each State. The 1990 RESIDENT population of the Nation was 248,709,873. The 1990 census data for the resident population are those . . · ·vill be used within States for drawing new election districts. National and State totals are presented in the Census Profile noted above.

b. **The number of Members In the House of Representatives, as determined by the Congress.**

This number has been 435 since 1911, except for a temporary increase to 437 in 1959 when Alaska and Hawaii became States.

c. **A method of calculation, also selected by the Congress.**

You might think that the method of calculation would be simple – divide the population of each State by the population of the Nation and assign members on the basis of those percentages. This method, however, results in many fractions, but a State cannot send a fraction of an elected official to Congress. Also, every State is entitled to at least one Representative regardless of its population. Consequently, more sophisticated methods have been devised.

The Census Bureau prepares official census counts and apportionment calculations for each State. These are reported to the President on or before December 31 of the census year (or 9 months after Census Day). The President then provides these figures to the Congress via the Clerk of the House. If the House decides to change either the method of apportionment or the total number of seats in the House, it must pass legislation, with which the Senate must concur, and the President must then sign or veto it. (See Title 2, Sections 2a-2b of the U.S. Code, dating from 1941.)

After the number of seats assigned to the individual States is determined, each State legislature undertakes the task of drawing the new congressional district boundaries. (Some States, based upon their State laws, are required to complete redistricting earlier than other States.) In the history of redistricting, certain people (because of race, national origin, religious beliefs, income, or the way they voted) were discriminated against by dividing them among several districts. This helped ensure that they would be outnumbered within a district by the "favored" group – a practice referred to as "gerrymandered." Current law requires that, as nearly as possible, the population of districts should be equal; plans should not be drawn so as to discriminate against a specific segment of the population.

2. Acquaint the students with recent and historical Congressional District boundaries. The Congressional Districts of the 100th Congress Map and its corresponding Teaching Resource show current and historical boundaries. Use State and local maps and atlases that show congressional districts, voting districts, and other governmental unit boundaries. Discuss the assumptions that may have been employed to produce these boundaries. Talk about the political implications of these decisions and current events that might have been affected because of these boundaries.

3. Discuss the national shifts in representation resulting from the 1990 census. Use the table 1990 Population and Number of Representatives, by State on page 8 of this Teaching Resource and (for background for yourself) figure 4 from 1990 Census Profile Number 1: Population Trends and Congressional Apportionment. Give a copy of the data table to each of your students. Have them note the changes in the number of seats by State. What does this imply about the importance of the census? Which States lost seats, which States gained political power? What does this imply? Which State gained the most seats? What does this gain imply about shifts in national political

power? What is the geographic pattern of these changes?

Using the table on page 8 of this *Teaching Resource,* direct the students to map the number of Representatives per State and the change in the number of Representatives from 1980 to 1990. (In essence, see if they can recreate the map presentation shown in figure 4 of *1990 Census Profile Number 1.*)

Development

1. Using the handout on page 8 or *1990 Census Profile Number 1: Population Trends and Congressional Apportionment,* announce to the students the total number of Representatives to which your State is entitled as a result of the 1990 census. (For example, in the 103rd Congress, Oregon will be represented by five Members in the House of Representatives.)

    Note the change from the 1980 census. Did your State stay the same, gain, or lose seats in the House of Representatives? What economic, social, environmental, and political events have unfolded in the past decade that may have contributed to population change in your State?

    Delving through current events and issues, have your students spend some time defining the political environment of your State. Who are the Representatives in your State now? Who are other key political leaders, including the Governor? What party does each represent? What are their major political views? What are key issues facing your State? What makes news in your State? How might these views and issues affect redistricting in your State?

2. Using the 1990 census State population totals found on page 8 of this *Teaching Resource,* tell students the total 1990 resident population of your State. (For example, the total 1990 resident population of Oregon is 2,842,321.) Have the students determine the average number of residents in the State that each House Member will represent during the

1990s. (For example, by dividing the number of House Members that Oregon will have [5] into the total 1990 resident population for the State [2,842,321], students will find that, on average, each Member of the House from Oregon will represent 568,464 people. Therefore, as the new congressional district boundaries are drawn for Oregon, each of these new geographic areas should contain approximately 568,000 people.)

3. Divide the class into groups. Each group will be creating its own redistricting plan for congressional districts in the State. Ultimately this means that each group will devise the geographic configuration of new congressional districts in its State. They will do this using 1990 census data for counties. In reality, when this work is done in your State, 1990 census data for smaller geographic areas will be used.

4. Give each group the following materials: **1990 census redistricting data for counties,** a set of **State maps showing county boundaries, colored pencils,** and a **calculator.**

5. Before each group begins working with the data and maps, instruct them to create a body of assumptions that will guide their redistricting plan. If you want to include step 8 as part of this lesson, allow each group to fashion its own set of assumptions. If you prefer not to, then create a single set of assumptions for every group to use. In creating their assumptions, some points for them to consider are —

    a. What do the State constitution and State laws mention about redefining congressional districts? How can/should these requirements guide the creation of redistricting assumptions?

    b. What is the current geographic configuration of congressional districts in the State? Take this a step further if you like. Using the 1990 census county population data, have the students total the 1990 population in each present

district to get an idea of how the population totals of these districts have changed over the decade. (NOTE: Actual districts will include portions of counties. Instruct the students to approximate the 1990 population totals as closely as possible. For the sake of simplicity, assume that the population is homogeneously distributed across the county. For instance, if one-third of a county's land area falls into district X and two-thirds in district Y, give one-third of the 1990 population to district X and two-thirds to district Y.) How different are the districts from one another in total 1990 population? How close are they in 1990 population to the "ideal" district (e.g., in Oregon, a district containing 568,464 people)? (NOTE: Districts that vary widely from this "ideal" will help students understand why redistricting is performed at all. This would be a good time to reinforce the notion of "one person-one vote" and to discuss related U.S. Supreme Court cases.)

c. Is it important to draw boundaries to ensure that current Members of the House remain in their old districts? Where do the current Members live?

d. How might ecological and major physical features of your State influence how the students draw the districts? (For example, the Cascade Range acts as a major north-south divider in the State of Oregon. How will the students deal with this predominant land feature in deciding district configurations?) How might the presence of major water bodies influence the drawing of boundaries? Are there any transportation system considerations that might isolate portions of the population?

e. How will the students deal with the issues of race and Hispanic origin in their plans? Does every group have equal opportunity for representation? Should separate, "single-race" districts be established or should all districts be "balanced"? What are the risks and opportunities associated with doing either of these? As an aid in reaching a decision here, and to gain a sense of the geographic distribution of the population by race and Hispanic origin, students may want to map these characteristics for each of the State's counties.

f. How much population variation will the students allow from district to district? One group working with Oregon districts might decide that districts can vary from 500,000 to 650,000 people. Another group might use 5 percent from the "ideal" of 568,464.

6. Once the assumptions are in place, instruct each group to begin dividing the State geographically.

a. As counties are added to individual districts, have one student in a group identify that county by a district number. For instance, if Baker County, Oregon is going to be part of district 2, write 2 next to the county name on the 1990 census data. (NOTE: Have groups mark these codes in pencil so they can change them easily if needed.)

b. As an individual district is being created, have another student create a table on a separate sheet of paper. The table should begin with a heading for the name of the district. Following this, list a series of headings for the **names of the counties** in that district and their **populations.** Add another column next to the population column to create **cumulative population totals** as counties are added. Likewise, if a group is going to take into consideration race and Hispanic origin, it also must total the population counts for each category. These should be listed as headings on this sheet.

c. Instruct another student in each group to sum the population totals and report that information to the person in charge of the

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district tables. Summations should be verified by retotaling.

d. Using different color codes for individual districts, have a different student map the counties added to each district.

e. Remember, the students are using complete counties to create their districts. At some point, the groups probably will run into counties with populations that exceed their "ideal" district population size. The easiest way to address this problem is by using the procedure noted in step 5b.

    For instance, Multnoman County, Oregon (which contains most of the city of Portland) has a 1990 population of 583,887. This is larger than the size of an "ideal" district in Oregon. Students will have to divide this county between at least two districts.

f. As a final product, direct each group to provide, at least: a written statement of the assumptions used, a color-coded map depicting the new district boundaries, and population totals for each district. Variations of these products include: racial and Hispanic-origin totals by district and district-by-district numeric or percentage variation from the "ideal."

7. Once all group products are completed, have a spokesperson from each group unveil the redistricting plan/map and present the assumptions used. On the chalkboard, create a record of assumptions used noting similarities and differences among groups. Post the group maps to allow students to see geographic similarities and differences. Have the students watch the news for proposed/final congressional redistricting plans in your State. Compare these to the students' depictions. What assumptions did

your political leaders use? What districts did they draw?

8. If you want to extend this activity and involve your students more directly in the type of negotiations that have occurred or will be occurring in your State, use step 8 as a jumping-off point for the groups to fashion a **single plan for the class.** What assumptions and boundaries must they negotiate to achieve a single agreed-upon plan?

Thank You

The development of this *Teaching Resource* was inspired by Rita Koman, a past-president of the Virginia Council for the Social Studies. She recently left the Teacher Resource Service of the University of Virginia to become a curriculum consultant for the National Trust for Historic Preservation. Manassas, Virginia, is her home. Thanks, Rita.

Other Teaching Material Available

The Census Bureau is creating other K-12 teaching materials. For instance, several mathematics, geography, and language arts activities can be found in the elementary edition of *Census Bureau Teaching Resource 2A.* The junior high/high school version of *Census Bureau Teaching Resource 2B* provides teachers with a series of mapping, data analysis, and research ideas for classroom use.

For a current listing of what's new and available for K-12 education, information about other Census Bureau data products, and some real-world curriculum ideas, get a copy of *Census Bureau Education Program Update 1.* Call or write: Census Bureau, Education Program, Data User Services Division, Bureau of the Census, Washington, DC 20233; 301-763-1510.

1990 Apportionment and Resident Population and Number of Representatives, by State

	Apportionment population[1]	Resident population	Number of Representatives based on the 1990 census	Change from 1980 apportionment
United States	249,022,783	248,709,873	435	—
Alabama	4,062,608	4,040,587	7	—
Alaska	551,947	550,043	1	—
Arizona	3,677,985	3,665,228	6	+ 1
Arkansas	2,362,239	2,350,725	4	—
California	29,839,250	29,760,021	52	+ 7
Colorado	3,307,912	3,294,394	6	—
Connecticut	3,295,669	3,287,116	6	—
Delaware	668,696	666,168	1	—
District of Columbia	609,909	606,900	—	—
Florida	13,003,362	12,937,926	23	+ 4
Georgia	6,508,419	6,478,216	11	+ 1
Hawaii	1,115,274	1,108,229	2	—
Idaho	1,011,986	1,006,749	2	—
Illinois	11,466,682	11,430,602	20	-2
Indiana	5,564,228	5,544,159	10	—
Iowa	2,787,424	2,776,755	5	-1
Kansas	2,485,600	2,477,574	4	-1
Kentucky	3,698,969	3,685,296	6	-1
Louisiana	4,238,216	4,219,973	7	-1
Maine	1,233,223	1,227,928	2	—
Maryland	4,798,622	4,781,468	8	—
Massachusetts	6,029,051	6,016,425	10	-1
Michigan	9,328,784	9,295,297	16	-2
Minnesota	4,387,029	4,375,099	8	—
Mississippi	2,586,443	2,573,216	5	—
Missouri	5,137,804	5,117,073	9	—
Montana	803,655	799,065	1	-1
Nebraska	1,584,617	1,578,385	3	—
Nevada	1,206,152	1,201,833	2	—
New Hampshire	1,113,915	1,109,252	2	—
New Jersey	7,748,634	7,730,188	13	-1
New Mexico	1,521,779	1,515,069	3	—
New York	18,044,505	17,990,455	31	-3
North Carolina	6,657,630	6,628,637	12	+ 1
North Dakota	641,364	638,800	1	—
Ohio	10,887,325	10,847,115	19	-2
Oklahoma	3,157,604	3,145,585	6	—
Oregon	2,853,733	2,842,321	5	—
Pennsylvania	11,924,710	11,881,643	21	-2
Rhode Island	1,005,984	1,003,464	2	—
South Carolina	3,505,707	3,486,703	6	—
South Dakota	699,999	696,004	1	—
Tennessee	4,896,641	4,877,185	9	—
Texas	17,059,805	16,986,510	30	+ 3
Utah	1,727,784	1,722,850	3	—
Vermont	564,964	562,758	1	—
Virginia	6,216,568	6,187,358	11	+ 1
Washington	4,887,941	4,866,692	9	+ 1
West Virginia	1,801,625	1,793,477	3	-1
Wisconsin	4,906,745	4,891,769	9	—
Wyoming	455,975	453,588	1	—

[1] The apportionment population counts include enumerations for the resident population as collected in the 21st Decennial Census under Title 13, United States Code, for the 50 States and the District of Columbia and counts of military and Federal civilian employees and their dependents overseas as reported by various Federal agencies.

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CENSUS BUREAU
Teaching Resource 2A:

NATIONAL AND STATE POPULATION TRENDS

*For Use in Elementary School
(With Mathematics, Geography,
and Language Arts Applications)*

Overview

The Census Bureau conducted a census of population and housing in 1990. We mailed out questionnaires and knocked on doors to obtain information about this country's people and their homes. The 1990 Census Profile Number 1: Population Trends and Congressional Apportionment gives an initial summary of some of the results and findings of this census. This unit will help teach about these population trends through a series of mathematics, geography, and language arts lessons. Your students will be using real-world numbers and meeting some of the kinds of tasks you assign everyday. We have based this unit primarily on objectives from the National Council of Teachers of Mathematics' Curriculum and Evaluation Standards and the National Council for Geographic Education and the Association of American Geographers' Guidelines for Geographic Education.

Unit Organization

This unit contains six individual **lesson plans.** They were designed to teach a sequence of concepts and build on each other; however, some of the lessons can stand alone. The following is a list of the lesson titles:

Lesson 1: Introduction to Census Journal Writing, Data Reading, and Data Interpretation

Lesson 2: Number Sense. Numeration, and Big Numbers (of People)

Lesson 3: Population Operation (and a Sense of Census)

Lesson 4: Demo-graphing Information (Read it. Graph it. Study It)

Lesson 5: State-tistics: Means, Medians, and Maps

Lesson 6: Conclusions About Census Data and My World

Census Bureau Materials Needed for This Unit

This unit is based on the *1990 Census Profile Number 1- Population Trends and Congressional Apportionment* data table on page 4. Enlarge the data table for younger children and those with learning disabilities. It also will help to block off certain parts of the table as they are needed by the students. Profile Number 1 should be read for background information. In each of the individual lessons, the data table you need from Profile Number 1 is listed simply as *Population 1900 to 1990* data table. You can obtain a FREE single copy of Profile Number 1 from the Census Bureau, Customer Services, Washington, DC 20233; 301-763-4100; (FAX) 301-763-4794.

Other materials for each lesson are noted in the **Materials Needed** section of the individual activities.

Lesson 1:
Introduction to Census Journal Writing, Data Reading, and Data Interpretation

Objectives

Students will —

1. Explore a table of information,

2. Look for patterns,

3. Become familiar with two geographic concepts, and

4. Engage in creative and journal writing.

Materials Needed

Population: 1900 to 1990 data table,
journal books

Procedures

1. In the subsequent lessons, student will be doing an in-depth study of the data contained in the data table *Population: 1900 to 1990*. This lesson is aimed at having them write about their current impressions of our Nation's population, providing some background information about the decennial census of the United States (the every-10-year census), familiarizing them with a table of data and table reading, and having them begin to look for patterns in the numbers and population trends.

   Before research begins, have the students write "journal entries" about their knowledge of the United States. Let the students write about trips they have taken, places they have visited, historical sites they have seen, relatives who live in different States, and areas they have read about and seen in books or on television that were significant to them. Encourage the students to write about places they would like to visit and learn more about.

   Focus the children's attention on the people who live in those places or who used to live there. Ask the students to predict where they think most people live in the United States and what States have the most people living in them. Have the children write about any trends such as moves, births, and deaths, that they noticed among their family members, neighbors, and friends or in their community. Guide the students to reflect upon current events and any reports on changes in population in their State and in the United States.

   Ask the students where they think many people are moving and why. Have the students identify reasons for movement such as climate, employment opportunities, being near family and friends, and other reasons for such change.

2. Once the students have identified their assumptions and experiences about population change, ask them how they would measure the population of the United States and its component areas. One way of doing this is through a **census,** like the one conducted in 1990.

   Give the students some background information on the decennial census in this country. Share some or all of the following information with the class.

Background on the Decennial Census

The need for a census of the new United States arose soon after the 13 American Colonies broke their ties with Great Britain. The Revolutionary War (1775-83) costs had been high, and the new Nation had to find ways to pay the debt; one way was to divide it equally among the people. Another reason for a census was to establish a truly representative government to sit in the two Houses of Congress. While each State, regardless of size, would have two Senators in the Senate, Members of the House of Representatives would be apportioned among the States according to their population. The only way to find out how many people there were was to count them, so for the first time in history, a nation decided to make a census part of its constitution. As adopted in 1787, the U.S. Constitution included these words in Article I, Section 2:

Representatives and direct Taxes shall be apportioned among the several States which may be included within this Union, according to their respective Numbers.... The actual Enumeration shall be made within three Years after the first Meeting of the Congress of the United States, and within every subsequent Term of ten Years, in such manner as they shall by Law direct.

Counting for taxation never did follow from the constitutional directive. On the other hand, the constitutional order to apportion (or reapportion) the number of Representatives among the States — by a count of the population at least every 10 years — has been followed every decade (with the exception of the 1920s) since 1790, and is the basis for the decennial census in this country. (NOTE: In 1921, Congress could not decide on an apportionment plan, but later passed a bill making reapportionment automatic. This took effect in 1931.)

From its beginning, the decennial census has been more than a simple headcount. Gathering information on sex and age in 1790 was to obtain knowledge as to the military and industrial potential of the country. Through the years, the Nation has changed and so has the decennial census. The size, composition, and distribution of the population; the laws; and the complexity of the country have changed and, with them, the needs for statistical information. To stay in step, the content of the census has varied over time in such manner as the laws direct. Since 1940, the decennial census has been limited to gathering information on population and housing.

Only questions that address important policy and program needs are included. For instance, the data from questions on plumbing facilities provide information for Federal studies on housing standards and quality. Likewise, summary statistics from the income questions are used widely by Federal, State, local, American Indian tribal, and Alaska Native village governments in the distribution of funds to communities for a variety of programs, including education. The 1990 population totals are used to determine congressional and State and local legislative district boundaries.

There is an ever-growing number of ways that information from the decennial census is being put to everyday uses. Given the increasing size of the Nation's population and the complexity of American society, more decision-makers are finding that major plans, especially those involving monetary investments, are facilitated by using census data.

Governments draw heavily on census data in planning and implementing community projects and developments, like planning for new schools. Business and industry make use of these statistics, especially those for small geographic areas, in deciding plant/office locations, expansions, and the like. An increasing number of social service providers have found that census facts give the kind of assistance they need in reaching and helping their clientele. More and more community leaders have a better understanding of the areas in which they live. Finally, more individuals are using census summary information to guide decisions of personal importance — such as planning a small business or helping choose a new area or a community in which to live.

The statistics from the 1990 census will be used to guide decisions of national, State, and local importance into the 21st century.

3. Tell the students they are going to be investigating some of the results from the 1990 census of population and housing, drawing conclusions from the patterns they see in the information, and writing about the data.

    Establish a link between the census count that was taken as of April 1, 1990, and the summarized data they will be using. Illustrate this by having the class count the number of students in the classroom and reporting the total number for the class. This total number of students represents summarized data, which is like the data they will be manipulating in this unit. The only difference is in the geographic coverage.

4. Reproduce and distribute the table
Population: 1900 to 1990. Go over the parts
of the table with the students: **title,
footnotes,** the data items in the **header,** and
the units of geography in the **stub.** (The stub
extends down the left vertical side of the
table; the header runs horizontally across the
top of the table.) Ask about or discuss the
three main statistics that the table gives— the
total population, change in population, and
State rankings. Ask or talk about the time
periods presented and the size of the intervals
between the years of the data given. Tell the
students that another way of saying 10 years
is **decade.**

5. Explain two of the geographic units included
in the table—the Nation and States and
the District of Columbia. Find or have
the students find the line of information
associated with the total United States and
with their home State. Spend time
acquainting them with some of the numbers
associated with these three lines: the
information for population, change in
population, and rankings of States.

6. Without having them get lost in the table's
numbers, ask the students what patterns they
notice in the data reported. Ask them if
anything about the data surprises them.
Have them write down these thoughts and
observations in their journals.

Lesson 2:
Number Sense, Numeration, and Big Numbers (of People)

Objectives

Students will—

1. Construct number meanings through
real-world experiences and the use of
physical materials,

2. Understand our numeration system by
relating counting, grouping, and place
value concepts,

3. Develop number sense, and

4. Work with the geographic theme of place.

Materials Needed

Population: 1900 to 1990 data table, pictures
that show large groups of similar things, large
quantities of actual objects, journal books

Procedures

1. One of the things the students will have
noticed by looking at the data table in Lesson
1 is that it contains very large numbers.
Before spending more time with the table,
work with your students to make sure they
have a grasp of these big numbers. Have the
students explore the concept of **thousands**
and **millions.** Begin with pictures of large
quantities, for example a picture of a large
group of people at a stadium, a swarm of
bees, a large aerial view of a forest and other
pictures that show large groups of similar
things. Then show the students large
quantities of objects; for example, a large jar
of pennies; a large jar of jelly beans or other
beans; a big bag of rice, sugar, or salt; a
container of sand. Have the students identify
things at home that come in large quantities.

Let the students estimate the quantity of some
object; for example, jelly beans in a jar, the
number of grains of sand in a bowl, or the
number of beans in a container. Have the
students count some of these objects to
check their estimates and develop a sense of
numeracy. Begin with counting 10 jelly beans
(for example), then 20, a hundred, and a
hundred tens or a thousand.

Once the students have achieved a sense
of large numbers, have them work with
manipulatives and physical math models to
grasp the **exact** concept of thousands and
millions. The concept of thousands can be
illustrated by dots on a page/poster, e.g.,
10 pages of a 100 dots equals 1,000.

2. The students should now be ready to study
the data table more closely. As the students
look at the data, ask them what value the
numbers hold. The numbers are written in
terms of thousands. (Help the students
conclude that there are three zeros following
the population numbers in the table.) Ask the

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students whether the numbers in the table are exact (for example, the number given for the amount of children in their classroom) or rounded numbers. Have the students conclude that the numbers are rounded to the nearest thousand.

3. Involve the students in more complex table reading. Ask them which States have a population of about 2 million *(rounding to the nearest million: Nebraska, Kansas, West Virginia, Arkansas, Utah, New Mexico).* Without rounding, ask the students which State had a population of about 10 million in 1990 *(Ohio).* Ask the students to identify which States had about 5 million people in 1990, *(rounding to the nearest million: Wisconsin, Missouri, Maryland, Tennessee, Washington).* Ask the students which State had almost 30 million people living in it in 1990 *(California).* Have the class identify the three States with the largest populations and the three States with the smallest populations.

4. Have them write the answers to these questions in their journals, as well as other relevant observations.

Lesson 3:
Population Operation
(and a Sense of Census)

Objectives

Students will —

1. Develop operational sense.

2. Develop meaning for the mathematical operations by modeling,

3. Relate the mathematical language and symbolism of operations to informal language,

4. Apply estimation in working with quantities, computation, and problem solving, and

5. Compare and contrast demographic characteristics for States.

Materials Needed

Population: 1900 to 1990 data table, journal books

Procedures

1. A variety of **mathematical operations** were used to produce the data table. Have the students identify the operations used to derive these figures and relationships. For example, ask the students which one of the four basic operations (addition, subtraction, multiplication, and division) was used to determine the total population. *(Addition was used.)* Ask what operation was used to find the change in population *(subtraction).* Ask the students how State rankings were determined. *(Point out to the students that rankings are produced through principles associated with the concepts of greater than, less than, and equal to.)* Depending upon grade level, have the students identify the operations used to find percent change. For instance, the percentage of population change from 1980 to 1990 was computed by first subtracting the 1980 population from the 1990 population, dividing that result by the 1980 population, and then multiplying that decimal by 100. Use estimation strategies to check the students' hypotheses of which operations were used.

2. Using geographic units and data items of interest to them, have the students write out mathematical sentences using numerals and symbols. For example, estimating to the nearest million, the change in population from 1980 to 1990 for Georgia was determined through subtraction; $6 - 5 = 1$. Another sentence might be $29,760,000 > 17,990,000$. This shows that the 1990 population for California is greater than that for New York, and it illustrates the principles used to create the State rankings. Using more exact numbers, another example is the percentage change in population for Ohio from 1980 to 1990: $10,847,000 - 10,798,000 = 49,000$; $49,000/10,798,000 = .005 \times 100 = 0.5\%$.

3. Direct the children to convert their mathematical sentences into a narrative in their journals.

Lesson 4:
Demo-graphing Information
(Read It, Graph It, Study It)

Objectives

Students will --

1. Organize and describe data,

2. Construct, read, and interpret graphic and tabular displays of data,

3. Identify "difference" as a function of subtraction,

4. Practice working with number lines,

5. Engage in creative writing and group activities,

6. Note how demographic characteristics of geographic areas change over time, and

7. Recognize the relationships between human activity and various locations.

Materials Needed

Population: 1900 to 1990 data table, number lines made of paper that can easily be folded, calculators, journal books

Procedures

1. Working with the table, have the students focus on the data for their home State. Before analyzing the data, have the students make predictions about the growth or decline in their State's population. Based upon the class knowledge of current events, tourist attractions, the availability of jobs, and other factors about the State; their own experiences and those of friends, family, and neighbors; have the students predict whether the State's population is growing, declining, or stable. (Population change is the result of births, deaths, and migration -- both into and out of an area.)

   Let the students discover if the data support or contradict their assumptions. Guide the students as they write their assumptions and findings in their journals.

2. Ask the class to create a table that displays the population of their State for each decade

from 1950 to 1990. To help them construct this table, review the components of the *Population: 1900 to 1990* table. Have the students include a title, header, stub, and footnotes, if appropriate. (See discussion in Lesson 1, step 4 for more details.)

3. Invite the students to use the data from their table to create corresponding bar graphs. The children will need to understand the concepts of **intervals** and **scales** to create the graphs. Use a number line as a tool to teach these concepts. The students can begin with number lines that show one as an interval (1,2,3,4... as coordinate points). Then have them create number lines with five as an interval (5,10,15,20... as coordinate points), and then look at number lines with ten as the scale (10,20,30,40,...).

   Once the children understand the use of scales and the associated different-sized intervals, discuss the problems with including the data from the 1900 census, since all the other historical data are grouped by decades. (Possible solutions include leaving a significant space between 1900 and 1950 on their scales or using a double zigzag line (~) to show a break in the scale.)

   Have the students use the data from the table they made, which shows the populations of their State, to create graphic displays of the same information. Have them explore two ways of graphing the data: i.e., time series along the horizontal line and the population figures along the vertical line and then the reverse. Be sure that the students note that these numbers are in thousands.

4. Have the students discuss the advantages of tabular vs. graphic display. Is it easier to understand the data listed in the table or the data presented in a visual graphic form? (Tables afford the inclusion of more information. Graphs create a picture that is easier to understand quickly.)

   Discuss with the students patterns they observe in the data about their State. Is there a specific decade that represents the most significant change in population? What trends

do the students notice based upon the size of the bars in the graph? Can the students identify what happened in the first half of the century (the years between 1900 and 1950)? Ask the students to make predictions about the next decade. Does the class assume their State will gain or lose population or be stable in population? Why?

Have the students pick out the decade in which their State was marked by the largest change. Decide whether the change was negative (a loss in population producing a negative number) or positive (a gain in population). Using local history and knowledge, discuss the historical events in the decade with the greatest change. See if the students can discover the events related to and causes of this change.

Have the students notice if the changes in population over the decades were relatively large or small, rapid or gradual, or if there were no significant differences in population over the past four decades. In order to do this, the students will need to define what they consider as large, small, rapid, gradual, and not significant.

Guide the students to write in their journals the answers to these data questions. Ask them to write their assumptions and predictions and then read these to a partner.

5. Continue this discussion by looking at the implications of population change in their State. Focus on the 1980s, the 1970s, and so forth. What were the implications for jobs and services? Did the change imply a loss of jobs and a need for people to leave to find work or the reverse? Were there significant environmental changes or occurrences? Was there a need for more houses and an increase in the use of resources such as water and electricity? What about services such as hospitals and schools? Did school districts in the State or your school system need to add more classrooms and hire more teachers and workers, or did some schools close? What were the implications for local governmental services, such as police and fire protection, roads, and garbage pickup and disposal?

After this discussion, let the students write a journal entry in response to these questions. Ask the students to write about their own experiences with these issues and how they feel about the changes taking place in their environment and the changes that may take place in the future. Allow them time to talk in small groups about their journal entries.

6. Have the students pick out two or three States adjacent to their own. (Students in Alaska can report on Washington and Oregon. Students in Hawaii can report on California and Nevada.) Discuss how these States are similar to or different from the students' home State in geographic location, climate, physiography, culture, racial composition, population size, job opportunities, natural resources, etc. How might some of these characteristics have affected population change in these States over the past 50 years? Divide the class into groups. Assign a different State to each group. Have the students develop graphs showing population change over time for their assigned State that are similar to the graphs produced for their own States.

Bring the students together to discuss the differences and similarities in the data among the States. Did the States peak or fall in population at the same time, at a different time? What factors are similar to all the States that could be affecting gains or losses of residents? Does one State stand out as having changed in a significant manner that is different from the other States?

7. After the discussion, guide the students to write a narrative about these findings, comparing data for their State to one or more of the neighboring States. Have the children share their writings with a partner.

Lesson 5:
State-tistics: Means, Medians, and Maps
Objectives
Students will—

1. Select and use computation techniques appropriate to specific problems,

2. Use calculators in appropriate computational situations,

3. Work with concepts of greater than, less than, and equal to,

4. Work with negative and positive numbers,

5. Learn about median and mean values and differences from these values,

6. Use a map of the United States to display data at the State level,

7. Construct, read, and interpret displays of data,

8. Recognize and identify population shifts over time, and

9. Analyze maps and data to seek spatial patterns.

Materials Needed

Population: 1900 to 1990 data table, calculators, rulers, number lines, objects such as beans or buttons, cups, U.S. map that shows State names and boundaries reproduced for the students, colored pencils, journal books

Procedures

1. Now that the students have a basic demographic understanding of their home State and of several neighboring States, have the students compare the data for their State and adjacent States to all States. One way of comparing is ranking. To illustrate the concept of ranking, have the students line up according to height. Assign the tallest student the number 1, the next tallest number 2, and so on through the class until the shortest student is ranked with the same number as there are students in the classroom. (If height is a sensitive issue with some of the children, choose another example that shows comparisons in a series.)

   Again, working with the data table, note that the State with the largest population (California) has been ranked as 1 and the State with the smallest population (Wyoming)

has been ranked 50. Have the students study the data for their State. Ask the students what their State's ranking was each census year. Do these rankings show that their State had a large population or a relatively small population compared to the other States in the United States in those years? What do these numbers say about their State's ranking over time relative to all other States? Let the students research other States that ranked high or low in population in each census year.

2. Explain that there are ways to compare and measure differences between numbers in a series or in a ranking. Tell the class that the **mean** and **median** are different measurements used to compare numbers in a series or ranking, and we call them **averages.** Explain to the students that these numbers give us "benchmarks" to use in comparisons.

   Based on these averages, we have a clearer picture of relative size (large population or small population) and how that State compares with all States in the Nation.

3. The **median** is the exact middle number in a series of ranked numbers. Illustrate the concept of median by having the students fold a number line in half. The number where the line is creased is the median; exactly half the numbers are below it and half the numbers are above it. Use a number line ranging from 1 to 11. Have the students guess what the "middle" number will be. Fold the number line in half revealing the numbers 1,2,3,4,5 on one side and 7,8,9,10,11 on the other side, with the number 6 directly in the middle. Repeat the exercise with numbers ranging from 1 to 10. Have the students discover that "even" ranges have two possible medians, when working with whole numbers. In this case, 5 and 6 are considered the medians or middle numbers.

   Have the class identify the State with the **median** population in 1990. Again, since we are working with a whole number (50), the State with the median population would rank 25 or 26 since there are 50 States. *(These States are South Carolina and Colorado.)*

4. Next, have the students work with the concept of **mean.** Illustrate **mean** by dividing a group of objects (such as beans or buttons) among different containers. Explain to the students that each container holds a different amount of objects, but we can predict how many objects would be in each container if the objects were divided evenly among the containers or about how many objects are in each container.

For example, show the students a group of 15 buttons (use any objects that can be easily manipulated). Group the buttons unevenly into 5 cups, labeled A – E. Place 4 buttons in cup A, 5 buttons in cup B, 2 in cup C, 1 in cup D, and 3 buttons in cup E.

Ask the students to identify how many buttons there are in all. Then ask the students how many buttons would be in each cup if the buttons were divided evenly among the cups. Lead the students to divide the total number of buttons by the number of cups. Guide the students to conclude that if the 15 buttons were distributed evenly among the 5 cups, each cup would contain three buttons. Therefore, even though each cup contains a different amount of buttons, each cup would hold approximately three buttons, or an **average of** three buttons per cup. Ask the students if any of the cups had the average amount of buttons in it. Lead them to cup E. Have the students identify which cups were below and above the average. *(Cups A and B contained amounts of buttons that were above the average and cups C and D contain amounts of buttons that were below the average.)*

Have the students plot the amount of buttons in each cup on a number line. Let them first plot 3 (the mean) with one color and then the numbers below 3 with a different color and the numbers above 3 with another color. Lead the students to see how the quantities **differ/vary** from the average and the amount that they vary. Ask the students why it is important to know how each cup differs from the average.

5. Expand the concept of mean and difference by asking class members what they think is the length of most of the students' thumbs in the classroom (or any thing that would be of most interest to the students). Have the students measure their thumbs in centimeters. Using a calculator, add these measurements; then divide this sum by the number of thumbs measured. Discuss with the students that this number represents the thumb length of most of the students in the classroom. Ask the students to identify which thumb lengths were larger than the average; explain that we call differences greater than the average **positive differences.** Ask the students to identify thumb lengths that were below the average; explain that differences less than the average are called **negative differences.** Let the students plot these figures on a class number line.

Have the students find the **median** thumb length. Ask them how this number compares to the **mean** thumb length? (Point out to the students that the mean and median are not always the same number nor close. The mean would be affected by numbers that vary greatly from the median.)

6. Using the data table, have the students calculate the **mean** or average 1990 "State" population; that is, what the population of each State would be if the total population of the United States was divided evenly among the States. *(In calculating the average State size, decide whether you want to subtract the District of Columbia [DC] from the total population or include it. See the footnote on the table. By excluding it, the students will be working with an equal number of elements, when comparing means and medians in the other activities. The mean "State" population [excluding DC] would be calculated as follows: 248,710,000 – 607,000 = 248,103,000; 248,103,000/50 = 4,962,060.)*

Since no State has the exact average population, let the students explore the concept of **difference** from the mean. Using estimation, have the students suggest which State would best represent the average

population of the United States in 1990. (Wisconsin's population is the closest to the mean "State" population.) Let the students decide what States are close to the average but have slight negative or positive differences. (Indiana and Missouri's populations vary slightly in the positive direction and Maryland, Tennessee, and Washington's populations vary slightly in the negative directions from the "State" mean.)

7. Review again with the class that the **mean** and **median** are different ways to compare and measure differences among numbers in a series or ranking. Have the students identify the State closest to the mean population and the State with the median population for 1990. Are they the same State? (Wisconsin's population was the closest to the "State" mean. South Carolina and Colorado have the median State populations.) Note with the students the close relationship between the mean value of a series of numbers and the median value of those same numbers.

8. Using the mean and median State populations as benchmarks, ask the students to compare their State to these measures. Is their State above or below the average State population? Ask the students if they consider their State to be high or low in population, based on its relationship to these averages. Ask the students the significance of this ranking and why they think their State ranks that way.

9. Have the students map the mathematical concepts of median, mean, and difference. Give each student a United States map that outlines and names each of the 50 States. Have the students color the two States with the **median** 1990 population. Have the students use two different colors to identify those States above and below the median population. This map will give a very clear representation of where the majority of the population of the United States resides. (See page 12 for an example of this map.)

10. Repeat this process with the State population totals for each of the census years. Divide the class into five groups. Let each group identify the State with the largest population and the State with the smallest population for a given year on the data table up to 1980. Then have each group find the median State for that year. Using different colors, have the students shade the States with the median population, the States above the median State population, and the States below the median State population on a map of the United States.

11. Display the maps for each of the six decades. How do the maps compare? How are they different or similar? Where has the population shifted over the last 90 years? Ask the students what historical, social, economic, technological, and environmental conditions would push or pull people out of or into different parts of the country. For example, the invention of air conditioning makes it easier to live in the South. People are living longer and retiring to warmer climates.

12. Repeat steps 9 to 11 for the **mean** 1990 population, using the same color patterns. Once complete, have students compare the mapped mean and median data for each census year. Are the States with mean and median populations the same or different? Are the States above and below these averages the same or different? (See page 12 for an example of this map.)

13. Repeat steps 6 to 11 for other data items such as percent change. Have the students color the States that fell below the national percent change from 1980 to 1990 (+ 9.8) and those States above the national percent change a different color. This gives a vivid picture of which areas have gained considerably vs. gained slowly or even lost population. Then expand this lesson to percent changes between other decades. Discuss the patterns and reasons for these changes.

14. Ask the students to write the answers to these data questions and their conclusions in their journals.

15. Use this lesson as a "springboard" to expand into other areas of the curriculum. Students can study larger geographic units;

such as divisions, regions, and the Nation, and can pose geographic questions as the spatial focus changes. This lesson also can expand in the direction of history. The maps created for this lesson show population patterns at different times. These maps raise questions about those time periods and the events surrounding changes in population. The junior high/high school version of *Census Bureau Teaching Resource 2B: National and State Population Trends* furnishes a series of activities on mapping, data analysis, and research; extended lessons on the five fundamental themes in geography; and historical research project ideas. Earlier pages in Profile Number 1 also present other data items useful for expanding these concepts.

Lesson 6:
Conclusions About Census Data and My World

Objectives

Students will –

1. Experience creative writing and keeping a journal,

2. Experience sharing their feelings, thoughts, and ideas with others, and

3. Formulate and solve problems that involve collecting and analyzing data.

Materials Needed

Journal books

Procedures

1. Have the students review their journal entries for the entire unit. Let them read these to a partner with whom they feel comfortable.

2. As a result of their research, have the students write about new information that they obtained; new things that they learned; any changes they made to their assumptions; a list of new places they would like to visit, read about and study further; a list of topics they would like to study; and their feelings about their Nation and its people.

3. Have the students make a list of ways they can pursue these topics further. Let them make plans to visit the library, travel agencies, information centers, historical societies, museums, and other places of interest. Have the students develop a list of ways they can research their topics of interest, such as books, educational videos, and trips. Tell the students that the Bureau of the Census is a valuable resource for finding information that may be useful and of interest to them.

Other Teaching Material Available

The Census Bureau is creating other K-12 teaching materials. *Census Bureau Teaching Resource 1: Congressional Redistricting* gives junior high and high school students an opportunity to model the redistricting process in their State.

For a current listing of what's new and available for K-12 education, information about other Census Bureau data products, and some real-world curriculum ideas, get a copy of *Census Bureau Education Program Update 1.* Call or write: Census Bureau, Education Program, Data User Services Division, Bureau of the Census, Washington, DC 20233; 301-763-1510.

Ask about other Census Bureau products, such as *1990 Census Profile Number 2- Race and Hispanic Origin,* which gives a brief look at the Nation's racial and Hispanic diversity. For a single FREE copy call or write: Census Bureau, Customer Services, Data User Services Division, Washington, DC 20233; 301-763-4100.

States With 1990 Populations Above and Below the *Median* State Population

☐ Above the median
▓ Below the median
■ Median
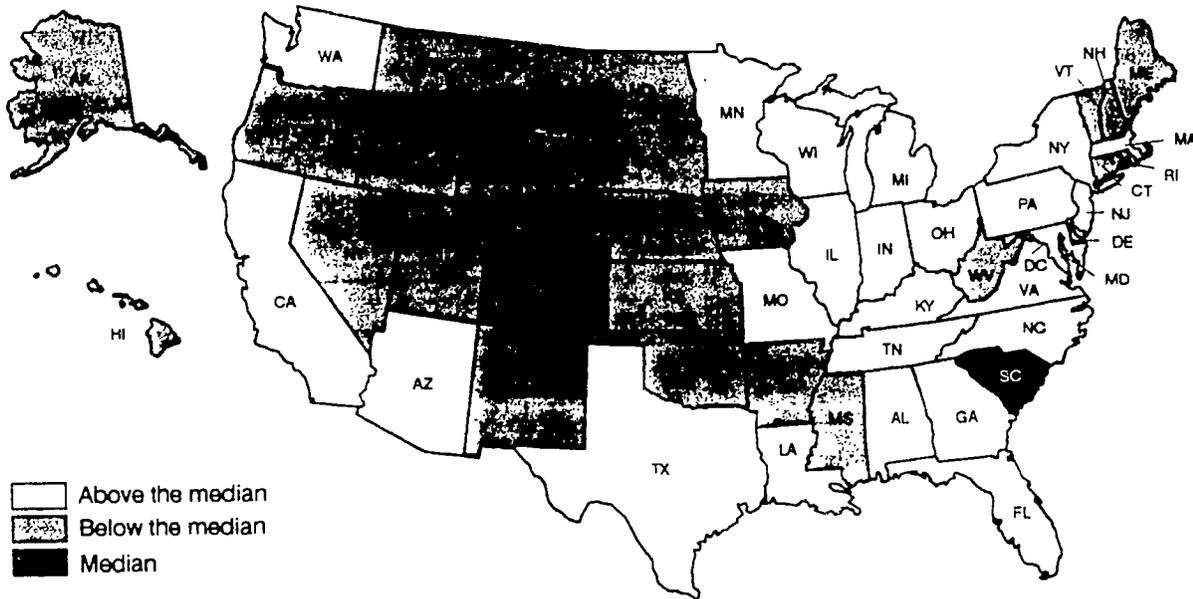
States With 1990 Populations Above and Below the *Mean* State Population

☐ Above the mean
▭ Below the mean
■ Mean
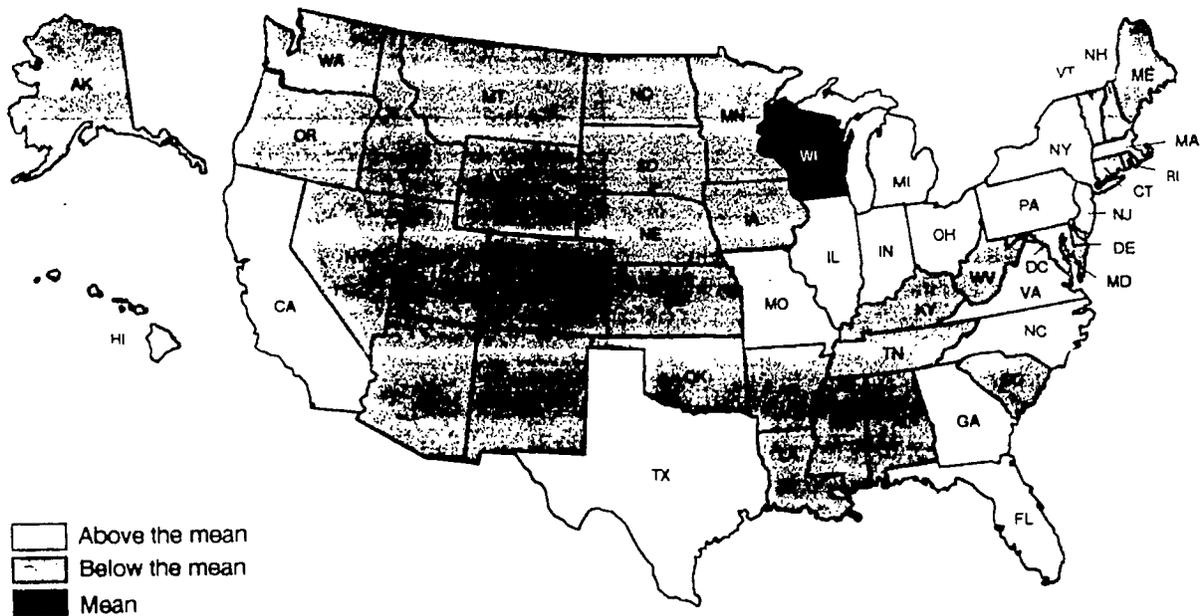
CENSUS BUREAU
Teaching Resource 2B:

NATIONAL AND STATE POPULATION TRENDS

For Use in Junior High/High School

Overview

The population of the United States is constantly changing through migration, births, and deaths. The 1990 Census of Population and Housing provides us with a look at the end result of a decade of demographic change in this country, but these 1990 census data give us a picture for only one moment in time. By linking population totals from previous censuses we can obtain a clear sense of the non-static nature of our population. Some of the first figures released from the 1990 census focused on the total population and the racial and Hispanic origin composition of the Nation, its regions and divisions (as defined by the Census Bureau), and the States.

This activity involves your students in exploring some of the data from the 1990 census and examining change in these data over time. By working with figures from two 1990 Census Profiles, students also will examine some new geographic concepts, define geographic areas of their own, and depict various data through the production of choropleth and three-dimensional maps. The activity will help students see demographic information for different U.S. geographic areas, help them understand some of the factors influencing population change, and gain a sense of how changing geographic focus allows for greater or lesser clarity in understanding geographically linked data and seeing patterns.

Learning Objectives

Students will —

1. Locate specific pieces of information in tables,

2. Compare data for different geographic areas and over time,

3. Prepare maps of various geographic areas,

4. Graphically depict data for these areas,

5. Analyze maps and data, seeking spatial patterns and relationships, and

6. Develop geographic questions and potential research topics.

Materials Needed

■ **1990 Census Profile Number 1 — Population Trends and Congressional Apportionment** provides tabular and map presentations of population counts from the 1990 census, from several earlier censuses, and congressional representation for the 1990s. The four-page report focuses on the Nation, Census Bureau regions and divisions, and States. A narrative describing these changes also is included. A single copy is available FREE from Customer Services, Bureau of the Census, Washington, DC 20233; 301-763-4100; (FAX) 301-763-4794.

■ **1990 Census Profile Number 2 — Race and Hispanic Origin** gives a brief look at the Nation's racial and Hispanic diversity. Counts from the 1990 and 1980 censuses are included. Like its sister publication, Profile Number 2 focuses on the Nation, Census Bureau regions and divisions, and States. The eight-page report contains a descriptive narrative and several graphs. A single copy is available FREE from Customer Services at the address above.

■ **8 1/2" x 11" U.S. maps showing State names and boundaries**

■ **Maps showing Census Bureau regions and divisions (Handout on page 8 of this Teaching Resource)**

■ **Data collection worksheet (designed by the students)**

- **Several hundred washers, pennies, or similar objects that can be stacked**

- **Colored pencils**

Other resources useful to this activity include:

- **Factfinder Number 8 — Census Geography: Concepts and Products.** This eight-page booklet introduces the fullrange of geographic areas for which the Census Bureau reports data. It defines these units, depicts some of the relationships of various geographic areas, shows the geographic levels associated with many censuses and surveys, and lists the types of maps available. A single copy of this report is available FREE from Customer Services at the address above.

- **Statistical Abstract of the United States: 1991.** This book has been published every year since 1878. It is the most comprehensive single-volume document produced by the Census Bureau. Summary data on over 30 topics — covering the demographic, social, economic, and political organization of the United States — make this an excellent reference. This edition features over 1,400 tables and charts, State rankings for 60 selected data items, and a guide to sources that lists over 1,000 publications for further reference. It is available in paperback (S/N 003-024-07260-2, $28) and clothbound editions (S/N 003-024-07261-1, $34) from the Superintendent of Documents, Government Printing Office (GPO), Washington, DC 20402; 202-783-3238. Expedited services for delivery available from the National Technical Information Service (NTIS); phone 703-487-4650 (S/N PB91-213124NCU paper copy is $28 plus handling; S/N PB91-190827NCU clothbound is $34 plus handling.)

State and Metropolitan Area Data Book: 1991. This compendium, published every 5 years, contains information on a wide array of topics. Data on birth rates, property taxes, motor vehicle accidents, population, housing, employment, and other subjects are but a sample of the information available.

Information is grouped by State (over 1,600 data items for each State) and metropolitan area (224 subjects for each metropolitan area and 89 data items for each county). There also are 89 data items for the central cities of each metropolitan area. It is available only in hardback (S/N 003-024-07259-9, $26) from the Superintendent of Documents at the address above. Also, available from NTIS phone number above (S/N PB91-212639 NCU, $26 plus handling). This data book also is available on IBM- formatted floppy diskettes. For more information about diskettes, contact Census Bureau Customer Services.

Getting Started:
Geographic Focus and Table Reading

Before the students begin working with the data, it is important for them to grasp the range of geographic units for which the Census Bureau produces data summaries, especially the geographic units they will be investigating in this exercise — the Nation, regions, divisions, and States. Moving through these initial steps also will help them understand how changing the level of geography will change the data presented and the analysis that is possible. In other words, the geographic scale one chooses to use in investigating a problem affects the solution. When analyzing summary statistics for very large geographic units (like the United States), only large-scale patterns are visible. Analysis at this level of geography masks differences, similarities, and patterns between and among smaller units (such as States). The smaller the geographic unit of analysis, the more finely tuned the research and results can be. (NOTE: See *Factfinder Number 8* for a complete discussion of Census Bureau geography.)

Any time a person works with data from the Census Bureau, he/she is dealing with geography. Regardless of the census or survey involved, the numeric information that person is handling is hitched to a piece of the planet. Some of these geographic areas are legally defined, such as the Nation, States, townships, and American Indian reservations. Others are statistically configured, like census regions, metropolitan areas, and

census tracts. In this activity, the students will be studying a mix of legally and statistically defined geographic units and the data associated with each unit.

Some geographic areas are easier to grasp than others. For instance, the mention of Minnesota should bring to mind a specific picture of that State, but mention of "the Midwest" produces a picture of an area with fuzzy borders in the midsection of the Nation. Steps 1-5 give your students a chance to produce maps of some of these areas and acquaint them with the concept of geographic focus.

1. Tell the students they will be studying some data from the 1990 census and some earlier censuses. They will be analyzing this information via maps they will produce depicting various aspects of the Nation's population. To do this, they will be working with tables of census data for the country, the 50 States and the District of Columbia, and areas called census regions and census divisions.

2. Inform the students that before they see the tables, you want them to divide the country into the same regions and divisions that the Census Bureau uses. Share the following background information with the students.

   The Census Bureau has grouped the States and the District of Columbia into four regions (Northeast, Midwest, South, and West) and nine divisions (such as the Mountain States). Regions are large groups of States. Divisions are smaller groupings of States within the four regions. Regional identifications have existed since before the American Revolution, such as the colonies comprising the New England and Middle Atlantic areas. Capsulizing census data in this fashion began in earnest after the 1850 census. At that time, the first regional subdivisions followed river drainage basins, but these regions contained some complete States and portions of other States. Some regional perimeters were defined using politically recognized boundaries, such as the Mason-Dixon line as a North-South divider. In

the last half of the 1800s, regional shapes, for census purposes, were being set to State boundaries. The present patterns have been in place essentially since 1880. (NOTE: Other people have selected different, but equally meaningful and useful, sets of regions for dividing the Nation.)

Divide the class into small working groups of three students each. Give each group two copies of an 8 1/2" x 11" map of the United States showing State boundaries (if the District of Columbia is not shown, have them place a dot to mark the location) and four different colored pencils/pens. Using complete States, have them color the States that they, as a group, think form the Northeast, Midwest, South, and West. They must use all the States and the District of Columbia, but only once. Have them use one map as a work copy; the other, to show their mutually agreed-upon final selections.

3. Repeat this process by having them draw the outer boundaries of the nine Census Bureau divisions. For instance, what States do the students think make up New England? (These geographic areas are depicted on the map shown on page 8 of this *Teaching Resource*.) The divisions that comprise each region are:

Northeast	New England and Middle Atlantic;
Midwest	East North Central and West North Central;
South	South Atlantic, East South Central, and West South Central;
West	Mountain and Pacific.

(NOTE: Drop this step and subsequent work built around Census Bureau divisions if you find this activity too complex for your students. Recognize that removing this group of geographic areas from the exercise eliminates one level of geographic understanding in their analysis of the data.)

4. Once completed, have each group designate a spokesperson to show the class their regional and divisional definitions and explain how they arrived at their groupings.

5. Now, have them compare their work with the Census Bureau definitions. Distribute copies of the regional/divisional map contained in this Teaching Resource. Have them compare their regional/divisional configurations with those shown on the handout map. Where are the differences and similarities in the maps? Allow the students to debate some of these differences. What are possibly some of the physiographic, cultural, or political attributes that have gone into these geographic definitions? While the Census Bureau does not have the last word on what States should be in or out of a region like the Midwest, it is important for the students to recognize that the Census Bureau and other Federal agencies group data according to certain ׳ iaracteristics. (NOTE: Keep the final student maps for use in Extending the Activity, step 4.)

6. Reinforce the Census Bureau concepts of regions and divisions by distributing copies of the data table on page 4 of 1990 Census Profile Number 1 – Population Trends and Congressional Apportionment and the table on pages 4 and 5 of 1990 Census Profile Number 2 – Race and Hispanic Origin. Have the students look at the far left column of either table for listings of the States that comprise each division and the divisions that make up each of the four regions. Allow the students time to explore these geographic areas and note how they "nest together" to form higher levels of geography – States within divisions, divisions within regions, regions within the Nation. (NOTE: Take time to read these two reports as background for yourself, especially for understanding the concepts of race and Hispanic origin. These concepts are briefly discussed in footnote 2 on page 2 of 1990 Census Profile Number 2.)

7. Use this as an opportunity to acquaint the students with the data in the two tables by having them play "Census Jeopardy" using

categories of Home State, Home Division, Home Region, and Nation. Randomly select data for these four geographic areas first from one and then from the other table. Have the groups supply answers in the form of questions. For example, suppose the Home State is Oklahoma. You announce, "The category is Oklahoma...And the answer is 26." The class's response is, "What was Oklahoma's rank in population among all States in 1980?" To show how Oklahoma fits into this geographic hierarchy, continue by selecting data for the West South Central Division, the South Region, and the Nation in total. Using this method, the students must find the piece of information and the table heading. Besides reinforcing these geographic concepts and relationships, this will familiarize your students with reading tables of complex information and facilitate their use of these tables later in the activity.

8. Also, take this as an opportunity to demonstrate how changing the geographic scale one chooses to use in investigating a problem affects the solution. For instance, the table in 1990 Census Profile Number 2 shows that there were nearly 2 million American Indians, Eskimos, and Aleuts counted in the 1990 census. Tightening their focus, the students will see that 563,000 of them resided in the South. Dropping another level, the West South Central States contained 350,000. In spotlighting individual States, they will find that 252,000 American Indian, Eskimo, and Aleut persons called Oklahoma home in 1990. Using this kind of geographic variation provides more flexibility and clarity in analysis of spatial patterns.

Development:
Mapping and Analysis

1. Working in the groups established earlier, ask each group to designate one person as scribe, another as data gatherer/researcher, and the third as mapmaker. On a sheet of looseleaf paper, direct each scribe to create a Data Collection Worksheet. Each worksheet should have the word **Topic** at the top with space beside the word so the scribe can

enter the name of the group's specific subject of investigation. Below this, have the scribes print the word **Regions** and list the four Census Bureau regions (**Northeast, Midwest, South,** and **West**) below the word Regions.

2. Make sure each group has a clean copy of the region/division map discussed earlier. Distribute handfuls of washers (or similar objects that can be stacked) to each group.

3. Tell the students that each group will be assigned a specific topic to research. They will use the data tables with which they have just become familiar to find data for their topic by census region. They will record the data for their topic on their Data Collection Worksheet and then use this information to create three dimensional maps. Using the washers, they will create stacks on the map to depict their topic's data by region.

4. Assign each group one of the following 10 topics (repeat or delete topics based on the size of your class):

   1990 total population;
   1990 Black population;
   1990 American Indian, Eskimo, and Aleut population;
   1990 Asian and Pacific Islander population;
   1990 Hispanic-origin population; and
   1980-90 percent change in each of these categories.

5. Direct each group's researcher to find the needed data and provide the information to the scribe to record. Once the worksheet is complete, have each group develop a scale for the washers to depict their data (e.g., one washer = 1,000,000 people or one washer = 10 percent change).

6. Using the washers, instruct each mapmaker to transfer the group's data to the map. In creating their maps, direct them to title the map, record the scale used, and (as a group) analyze the map to be able to explain it to other groups.

7. Once all maps are completed, allow the students time to observe all the maps. Have each group appoint one student to remain on station to explain that group's map to the other students. As the students proceed from station to station, have them notice differences in the scales used and have them look for interesting regional patterns and relationships between the data uisplayed on their map with the others. Direct them to notice whether there are marked regional differences in distribution and whether the distribution of one phenomenon is related to that of another. Ask the students to brainstorm some geographic and historical questions they can develop from this investigation. Ask them to hypothesize about possible relationships and reasons for the spatial patterns. Have them write about the patterns and relationships they see and some of their hypotheses.

8. This regional examination will probably touch off more questions of **where** and **why.** Allow the students to expand the focus of their spatial research to the nine Census Bureau divisions by repeating the process outlined in *Development* steps 1 through 7.

Extending the Activity: Maps, Migration, and More

1. Direct the students to zero in on patterns and relationships as closely as the data in the two *1990 Census Profiles* will allow; i.e., investigating the 50 States and the District of Columbia. Rather than having them create three-dimensional maps, instruct them to map the distributions for the data items listed in *Development* step 4 using colored pencils or pens. Distribute clean copies of the region/division map. Ask the students to select one of the characteristics shown and depict (code) it by State on the map using different colors or designs for different ranges of the characteristic. Have them write an essay describing what they see.

   Allow the students to map other data items shown in the two *1990 Census Profiles* or map some of the items they have already worked

with in another way. For instance, have them create maps that depict which States contain a majority of the

American Indian, Eskimo, and Aleut population or which States' populations grew faster/slower than the national average (of +9.8%) from 1980 to 1990.

Consider using other data that will help students more clearly see relationships. Both the *1991 Statistical Abstract of the United States* and the *1991 State and Metropolitan Area Data Book* (noted in the *Materials Needed* section on page 2 of this *Teaching Resource*) provide a wealth of demographic, social, and economic data for States, divisions, and regions. Use the following narrative as an introduction to investigating and mapping demographic size, composition, and distribution by State as explained above.

Boom Town! Ghost Town! Boom-Bust Cycle! These are phrases from the Nation's past and its present. They say something about population change, among other things. The population of an area rarely is static. It always is changing in some way. Population change is a product of births, deaths, and migration (both into and out of the area). This, then, means that population change in an area is influenced by natural, social, and economic forces.

This Nation's population is not static. While it may seem that some portions have not changed, it is safe to say that, across the Nation's various geographic pieces, the population changes. This includes States. Although there has never been such a thing as a Ghost State, there have been Boom States and States caught in Boom-Bust Cycles. For instance, in the early 1980s, Energy States, like Texas and Oklahoma, were called Boom States. Population growth was rapid there, while other parts of the country were having economic slow times and some even lost population. Later, plummeting oil prices triggered declines and growth slowdowns in

these southwestern States' economies and populations. People moved away as these States lost jobs and a corresponding need for services. Some of the New England States saw the reverse. They went from economic slow times in the early 1980s to economic prosperity later in the decade. With that prosperity came people moving from other parts of the country into New England. But now things have slowed down there again.

We're going to take a look at some of these changes and patterns by taking a closer look at the data we have already been investigating. Our focus will be on the 50 States and the District of Columbia.

2. One of the major factors influencing State population change is migration – people moving into and out of a State. To help students better understand the mobile nature of the population, take a count of the moves (changes of residence) that students have made across State boundaries. List the different States on the chalkboard and tally the number of students who have lived in each. Have them create a percentage distribution of the information and map it. Ask them to consider the reasons why people move (such as to be closer to family, change jobs, retire, move to a bigger house, go to college, live in a different climate). Ask them why they moved.

Assign the study of U.S. migration as a small group research topic. Have the students examine major migration-inducing events/phenomena in the Nation's history. Have them look at the social, economic, demographic, political, technological, and/or environmental changes generated by the migration on the geographic areas involved. Some topics to include are industrialization, the decline of farming, Black migration to the North, the Trans-Alaska pipeline, the Dust Bowl, the formation of the Indian Territory, the California Gold Rush, the invention and development of air conditioning, telecommunications, and the automobile.

3. Ask the students to calculate the percentage of the total U.S. population found in each of the four regions in each year listed in *1990 Census Profile Number 1*. If they sum the percentages for the South and West, they should see something interesting between 1970 and 1980. 1980 marks the first time in the decennial census that these two regions contained over 50.0% of the Nation's population (52.3% in 1980; 48.0% in 1970). This pattern intensified during the 1980s. The 1990 census showed that 55.6% of the Nation's population resided in the South and West. Ask them what implications this shift has on the House of Representatives, the need for and usage of goods and services, employment opportunities, and so on. (NOTE: Make sure they include the extra three zeros to the population figures in performing any other calculations, because the figures in the tables are presented in thousands.)

4. Using data from the tables provided in the two *1990 Census Profiles,* have the students create profiles for other groupings of States. Popular geographic groupings to use are the Sunbelt and the Frostbelt (or the Snowbelt). There are many definitions for these. Here's an easy one to use. Draw a "straight" line running east to west, beginning at the Virginia-North Carolina border. States south of the line are in the Sunbelt; those to the north, Frostbelt/Snowbelt. Include the States of Nevada, California, and Hawaii in the Sunbelt.

Have them create and analyze similar profiles for other areas using whole States. These might represent data summaries for culturally, physiographically, or economically similar States, such as the Cornbelt or the oilproducing States.

Have them produce a demographic data table summarized to match the regional (or divisional) groupings they created in the *Getting Started* steps 2 and 3.

Thank You

We wish to thank Sarah Bednarz (Department of Geography) and James Kracht (Department of Curriculum and Instruction and Department of Geography) of Texas A&M University for a good portion of this *Teaching Resource*. They provided us and classroom teachers with useful concepts (geographic focus) and procedures (three-dimensional maps and analysis). Thanks to you both.

Other Teaching Material Available

The Census Bureau is creating other K-12 teaching materials. For instance, several mathematics, geography, and language arts activities can be found in the elementary edition of *Census Bureau Teaching Resource 2A. Census Bureau Teaching Resource 1 – Congressional Redistricting* involves students in modeling the redistricting process taking place in their States. It is designed for junior high and high school.

For a current listing of what's new and available for K-12 education, information about other Census Bureau data products (especially 1990 census data products), and some real-world curriculum ideas, get a copy of *Census Bureau Education Program Update #1.* Call or write: Census Bureau, Education Program, Data User Services Division, Bureau of the Census, Washington, DC 20233; 301-763-1510.

United States: Regions, Divisions, and States

- **Northeast**
  - New England
    - NH
    - MA
    - RI
    - CT
    - VT
  - Middle Atlantic
    - NJ
- **Midwest**
  - East North Central
  - West North Central
- **West**
  - Mountain
  - Pacific
- **South**
  - South Atlantic
    - DE
    - MD
    - DC
  - East South Central
  - West South Central
- HI

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BC-1635C
January 1992

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Economics and Statistics Administration
BUREAU OF THE CENSUS

U.S. GOVERNMENT PRINTING OFFICE : 1992 309-566 : QL-3
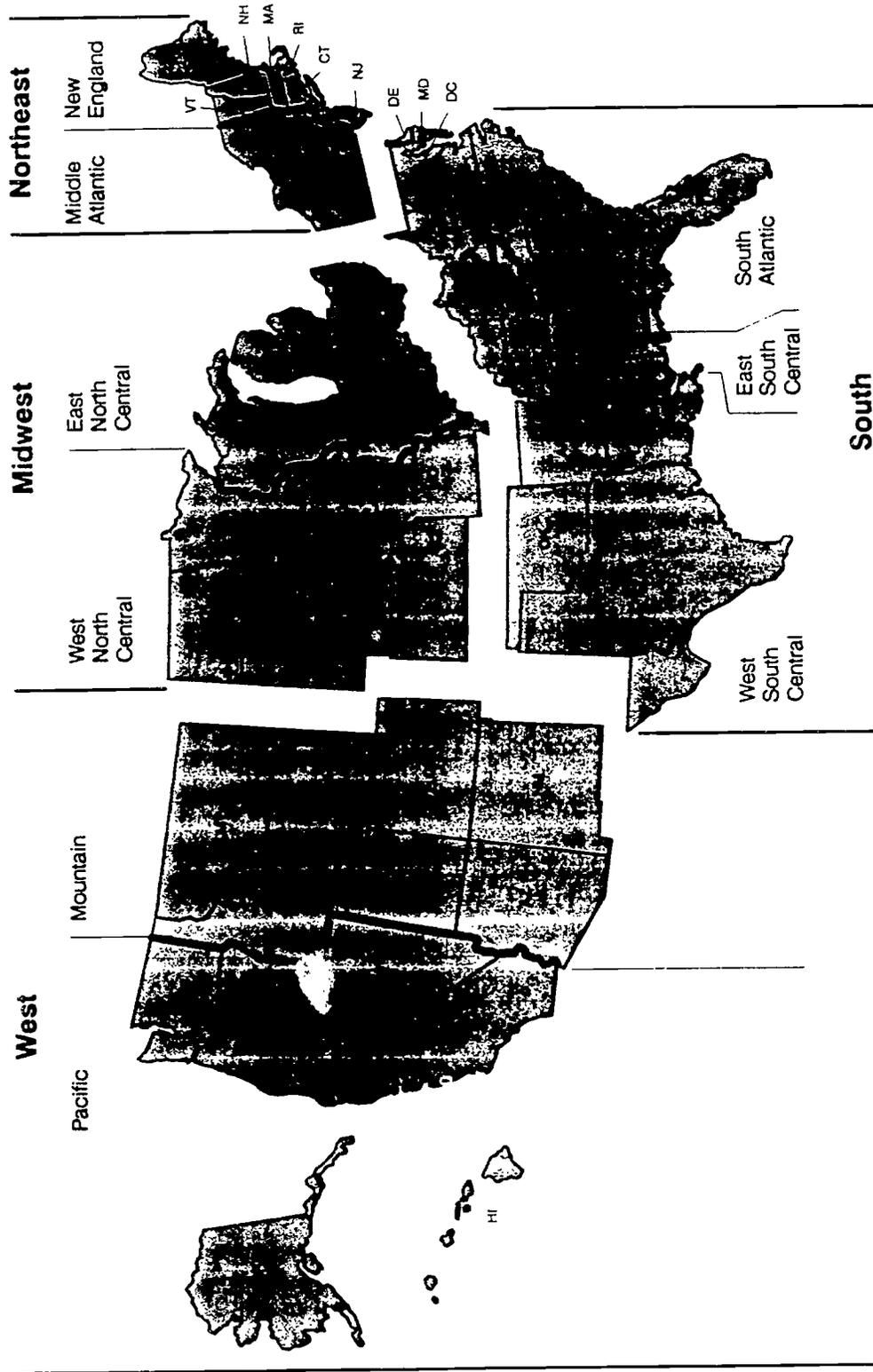
Oops!

Nobody's perfect. Every once in a while we all make mistakes including us. You'll find one of these pesky rascals on the back page of *Census Bureau Teaching Resource 2B.* "National and State Population Trends."

Essentially, we zigged when we should have zagged. The State of Nevada was inadvertently included in the Pacific Division. It is, in fact, part of the Mountain Division. In the grand scheme of things, this is a minor faux pas, but the map and the geographic concepts of regions and divisions are integral parts of this activity.

On the reverse side of this sheet, we have provided you with a corrected copy as a replacement. Sorry for the inconvenience.

George Dailey
Dorothy Jackson
Census Bureau Education Program

United States: Regions, Divisions, and States

Northeast

New England

Middle Atlantic

Midwest

East North Central

West North Central

West

Mountain

Pacific

South

South Atlantic

East South Central

West South Central

CENSUS BUREAU
Teaching Resource 3:

LIGHTS! CAMERA! ACTION!
STUDYING THE SIZE AND THE CENTER
OF U.S. POPULATION, 1790-1990

For Use In Junior High/High School

Overview

The Nation's population and its land area have grown dramatically since the first U.S. census In 1790. This activity will help your students understand some aspects of these changes by examining U.S. population totals from 1790 to 1990 and the geographic location of the "center of population" for each of the 21 decennial censuses. By exploring these data and this geographic concept, your students will gain insights into the historic growth of the U.S. population, the effect of historic events on its growth, the internal movement of population, and the expansion into new areas.

Learning Objectives

Students will —

1. Extract and interpret information from a table and map,

2. Define the geographic center and the center of population of the United States,

3. State at least one reason why the center of population is moving south and west,

4. State at least two reasons why the population changes size, and

5. Name one major historic event which had an effect on population change in this country.

Materials Needed

- Copies of the *Lights! Camera! Action!* handout

- Copies of the *U.S. Population: Frame by Frame* handout

- Copies of the *Center of Population of the United States: 1790-1990* map

- Wall map of the United States

- Cardboard square and cardboard scalene triangle

- Straight pins

Getting Started

1. Show students the cardboard square. Ask them to describe the point in the interior at which the square would balance on a pin. [*Answer: The point at which the diagonals intersect.*] Have a student demonstrate. Ask another volunteer to experiment with the triangle and pin to discover the corresponding balance point. [*Answer: Students in higher grades will know that this is the intersection point of the triangle's medians.*]

2. Display a wall map of the United States that includes Alaska and Hawaii. Ask the students to imagine that the land mass of the United States is uniformly flat. (NOTE: You may wish to prepare an acetate sheet on which cardboard cutouts of the continental United States, Alaska, and Hawaii are mounted in correct geographic orientation. Also, draw the location of the Mississippi River on the cutout.)

As the students have done with the cardboard geometric shapes, ask them where they think the Nation's balance point is located. [*Answer: The balance point for the 50 States (or the geographic center) is located in Butte County, South Dakota.*] (See a detailed explanation of these concepts in the subsequent section, **Population and Geographic Centers.**)

Now, direct the students to picture the population of the United States placed on the map. If every member of the population is exactly the same size and weight and the population is *evenly-distributed across the Nation's land mass* where do they think the center would be? [*Answer: It would be in the*

same location as the geographic center since
the population is evenly distributed across
the Nation.]

3. Ask the students if the population is evenly
distributed. [*Answer: No. If the population in
1990 was evenly distributed, there would be, on
the average, roughly 70 persons occupying
every square mile of land area. This is not the
case. Portions of major cities far exceed 10,000
persons per square mile, while some areas of
the country are without any people at all.*]

4. Considering the uneven distribution of the
population, ask the students to imagine the point
at which a flat, weightless, and rigid map of the
Nation would balance if weights of identical
value were placed on it so that each weight
represented the location of each person living in
the United States on the date of the 1990
census. Demonstrate this with the cardboard
square. Insert a number of straight pins near
one edge of the square. Have a student
experiment balancing the square on another pin.
After several trys, point out that the balance
point no longer is at the intersection of the
diagonals, but is closer to the location of the
inserted pins. The presence of the pins
("population") at their locations ("residences")
has caused the center to move away from the
square's "geographic" center.

5. Direct the students back to the imaginary U.S.
map with the Nation's 1990 population "placed"
on it. Ask them if they think the population
balance point, or *center of population*, would be
east or west of the Mississippi River. Emphasize
this by placing a pointer on the wall map on a
line approximating the location of the river.
[*Answer: From the results of the 1990 census,
the balance point is west of the river. Based on
the map and weight assumptions and the
location of every person counted in the 1990
census, the center of population is located 9.7
miles southeast of Steelville, Missouri. On
April 1, 1990, about 61 percent of the
population, or 151.6 million, lived in States
"east" of the Mississippi. (This figure excludes
the States of Minnesota and Louisiana from the
east.) For 1980, the similar figure stood at about
63 percent or 142.4 million people.*] See

Population and Geographic Centers for a
detailed explanation of this concept. NOTE: A
wall map titled *1980 Population Distribution in
the United States* provides an excellent way to
graphically communicate the location of the U.S.
population and discuss the concept of a
population center. This Census Bureau product,
also called the *Night-time Population Map* (S/N
003-024-06445-6), is available from Bureau of
the Census, DPD Publications Unit, 1201 East
10th Street, Jeffersonville, IN 47132. Make
check for $2.25 payable to "Superintendent of
Documents." The *1990 Population Distribution
in the United States* map should be available in
late 1992. For more information about the 1990
edition of this map, contact Customer Services,
Bureau of the Census, Washington, DC 20233;
301-763-4100; (FAX) 301-763-4794.

6. Have the students consider the location
of the center of population in 1790. Ask them
if they think the center was in a location
different than that in 1990. Using the wall map
and pointer again, ask the students if they think
the center was east or west of the Mississippi
River; east or west of the Appalachian
Mountains. Have the students justify the
position they take. If needed, ask them where
in the Nation the population was located in
1790. [*Answer: Yes, the center was much
farther east in 1790. Knowing the geographic
boundaries of the United States and the general
limits of settlement in 1790, students should
recognize that the population in 1790 was
essentially concentrated along the Atlantic
seaboard. The center of population should then
be close to this concentration. The 1790 center
was approximately 23 miles east of Baltimore.
NOTE: You may not want to tell them this
location because question 3b of the Lights!
Camera! Action! handout asks them to name
the State of Maryland.*]

Atlases or social studies textbooks showing the
geographic expansion of the Nation and basic
population settlement patterns will help reinforce
the students' understanding of a moving center
of population. The Census Bureau volume, *A
Century of Population Growth: From the First
Census of the United States to the Twelfth,
1790-1990*, provides a map depicting the extent

of settlement as well as a narrative on many aspects of life in 1790. The National Geographic Society's *Historical Atlas of the United States* presents a series of maps displaying population distribution at the time of each census. Information about both publications is listed under **Sources of Additional Information.**

7. Ask the students what they think the total population of the Nation was in 1790. Ask them how that compares with the population in 1990. After a short general discussion of population size, tell the students they will be answering questions about changes in the size of the U.S. population and the movement of the center of population.

Development

1. Duplicate and distribute copies of the handouts—*Lights! Camera! Action!, U.S. Population: Frame by Frame,* and *Center of Population of the United States, 1790-1990.*

2. Ask the students to answer the questions using the information in the table and on the map. A group discussion of the answers works well with this activity. However, if you would like to test the students' table-reading and analysis skills, postpone discussion of the answers until each student has completed the assignment. *[Answers: See subsequent section Answers to Lights! Camera! Action! Handout.]*

Extension/Enrichment Activities

1. Direct the students to analyze and map historical population distribution and growth for United States. This examination will help them more clearly understand the movement of the center of population. Together, two publications from the Census Bureau will provide you with total population counts for individual States from each State's earliest decennial census to 1990. These are *1990 Census Profile Number 1— Population Trends* and *Congressional Apportionment* and *1980 Census of Population—Number of Inhabitants, United States Summary.* Both are listed in the **Sources of Additional Information** section. The latter volume is out of print, but many libraries, your State Data Center, or the Census Bureau

regional office serving your area can help you obtain the necessary State data presented in tables 8-10. Contact Census Bureau Customer Services at the address/phone number noted above for information about these agencies.

2. Use the prepared activity and **Extension/ Enrichment Activity 1** as jumping-off points for student research projects on historical population growth, patterns of population distribution, and the implications of population growth for the Nation. Possible topics include the effects of climate, physiography, technology, wars/conflicts, and modes of transportation; westward expansion; the importance of immigration in the late 1800's and early 1900's; and the effects of the post-World War II Baby Boom and recent "Sunbelt" migration.

3. Guide the students into an examination of the history of their State, county, or community. How have events been recorded in their population histories? Have population changes helped shape historical events?

4. Have the students pinpoint the 1790 and 1990 centers of population on the wall map and calculate the distance the center has moved, both west and south. (See **Population and Geographic Centers** for further discussion.) Note especially the continued southern and western movement in the 1980's because of rapid population growth in the South and West.

Sources of Additional Information

1990 Census Profile Number 1—*Population Trends and Congressional Apportionment* provides tabular and map presentations of population counts from the 1990 census and from several earlier censuses and congressional representation for the 1990's. The four-page report focuses on the Nation, Census Bureau regions and divisions, and States. A narrative describing these changes also is included. A single copy is available FREE from Census Bureau Customer Services at the address noted earlier.

1990 Census Profile Number 2—*Race and Hispanic Origin* gives a brief look at the Nation's racial and Hispanic diversity. Counts from the 1990 and 1980 censuses are included. Like its sister publication, *Profile 2* focuses on the Nation, Census

Bureau regions and divisions, and States. The eight-page report contains a descriptive narrative and several graphs. A single copy is available FREE from Census Bureau Customer Services at the address noted earlier.

1980 Census of Population—*Number of Inhabitants, United States Summary* (PC80-1-A1) focuses on basic 1980 population counts for the Nation, States, and several other groupings of geographic areas. The volume contains several tables showing time-series data. Of particular interest are tables 8-10, which provide population totals for States from the earliest census to 1980. This publication is out of print. Contact the government documents section of your local library, your State Data Center, or the Census Bureau regional office nearest you. A list of these sources of assistance is available from Census Bureau Customer Services.

1990 Census of Population and Housing—*Population and Housing Unit Counts, United States Summary* (CPH90-2-1) will provide total population and housing unit counts for 1990 and previous censuses. Data will be shown for States, counties, and other geographic levels. This report is comparable to the *1980 Number of Inhabitants, United States Summary* (noted above) and will be available in late 1992. Contact Census Bureau Customer Services at the address/phone number noted above for ordering information.

National Geographic Society's **Historical Atlas of the United States** contains population distribution maps for every decade from 1790 to 1980. The atlas also furnishes a wealth of graphic presentations on population size, composition, and distribution with companion narratives. For ordering information, write or call: National Geographic Society, Educational Services, Washington, DC 20036; 800-368-2728 or, in Maryland, 301-921-1330.

The Census Bureau's two-volume set, **Historical Statistics of the United States from Colonial Times to 1970** contains more than 12,500 statistical tables on subjects such as population, immigration, agriculture, labor force, manufactures, and energy. One chapter is devoted to data covering the colonial and pre-federal period, 1610 to 1780. Direct

inquiries and orders to Government Printing Office, Washington, DC 20402; phone 703-783-3238 (S/N 003-024-00120-0, make check payable to Superintendent of Documents for $56).

In 1909, the Census Bureau produced an excellent reference, **A Century of Population Growth: From the First Census of the United States to the Twelfth, 1790-1900.** It includes data from colonial censuses; tables with data for various geographic areas from the 1790 and 1900 censuses; historical maps of some cities, the Nation, and the extent of population settlement in 1790; and statistics on the foreign-born population, slavery, American Indians, and migration. The book also contains detailed narratives such as a complete look at everyday life in the United States in 1790. Johnson Reprint Corporation has reissued this historical volume. For ordering information write or call Johnson Reprint Corporation, 111 Fifth Avenue, New York, NY 10003; 800-543-1918 or 212-614-3150.

Ayer Company Publishers, Inc. stands as a key source of the summary data reports compiled after each of the U.S. censuses from 1790 to 1960. Ayer carries reprint copies of these volumes, including the 52-page 1802 edition of the "First Census of the United States, 1790." Teachers wanting their students to work directly with historical documents and data will find these to be excellent additions in providing students a national and local historical perspective on population. These census volumes are listed in Ayer's catalog, *America in Two Centuries: An Inventory.* Ayer's Catalogs can be obtained by requesting a copy of the *General Catalog,* write or call: Ayer Company Publishers, Inc., P.O. Box 958, Salem, NH 03079; 603-669-5933.

The **Statistical Abstract of the United States** has been published every year since 1878. It is the most comprehensive, single-volume document produced by the Census Bureau. Summary data on over 30 topics—covering the demographic, social, economic, and political organization of the United States—make this an excellent reference. The **1991 edition** features over 1,400 tables and graphic charts, special State rankings for 50 selected data items, and a guide to sources that lists over 1,000 publications for further reference. It is available in

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paperback (S/N 003-024-07260-2, $28) and clothbound editions (S/N 003-024-07261-1, $34) from the Superintendent of Documents, Government Printing Office, Washington, DC 20402; 202-783-3238. Expedited services for delivery available from the National Technical Information Service (NTIS); phone 703-487-4650 (S/N PB91- 213124NCU paper copy is $28 plus handling; S/N PB91-190827NCU clothbound is $34 plus handling).

State and Metropolitan Area Data Book: 1991 is a compendium containing information on a wide array of topics. Published every 5 years, the **Data Book** provides statistics on birth rates, property taxes, motor vehicle accidents, population, housing, employment, and other subjects. Information is grouped by State (over 1,600 data items for each State) and metropolitan area (224 subjects for each metropolitan area and 89 data items for each component county). There also are 89 data items for the central cities of the metropolitan areas. It is available in hardback (S/N 003-024-07259-9, $26) from the Superintendent of Documents at the address above. Also, available from NTIS phone number above (S/N PB91-212639NCU, $26 plus handling). This data book also is available on IBM-formatted floppy diskettes. For more information about diskettes, contact Census Bureau Customer Services at the address noted earlier.

Population and Geographic Centers

The center of population of the United States for 1990 is located in Crawford County, Missouri, 9.7 miles southeast of the city of Steelville (37°52'20" N. and 91°12'55" W.). The center of population is the point at which an imaginary, flat, weightless, and rigid map of the United States would balance if weights of identical value were placed on it so that each weight represented the location of one person on April 1, 1990. The 1990 center is 34.9 miles west and 18.3 miles south (or 39.5 miles southwest in a straight line) from the 1980 population center, which was located about one-fourth mile west of the city of De Soto, Missouri in Jefferson County (38°8'13" N. and 90°34'13" W.). The 1980 center (approximately 50 miles west and 20 miles south of the 1970 site near Mascoutah, Illinois) was the first one to be west

of the Mississippi River. The change during the 1980's reflects the continued westward and southward expansion of the population. Since 1790, when the first census was taken, the center of population has moved 804.9 miles west and 96.8 miles south (or 818.6 miles southwest in a straight line) from its first location 23 miles east of Baltimore, Maryland near Chestertown (39°16'30" N. and 76°11'12" W.). NOTE: The general southward movement of the center has been a recent phenomenon, i.e. post- World War II.

The center of population differs from the geographic center, which is the point at which the surface of the United States would balance if it were a plane of uniform weight per unit of area. That point is located in Butte County, South Dakota. The geographic center of the conterminous United States (48 States) is located in Smith County, Kansas.

Answers to Lights! Camera! Action! Handout

(1a) 3,929,214 (or about 4 million people), **(1b)** 248,709,873, **(1c)** 244,780,659, **(1d)** Births and immigration (national population change = births – deaths + immigration – emigration), **(1e)** Students could calculate the numerical change from census to census and graph those decade changes, simply graph the actual population at the time of each census, draw 21 circles proportionate in size to the population for each census, and so on.

(2a) 22,164,068, **(2b)** 1790 to 1840.

(3a) West and South, **(3b)** Maryland, **(3c)** 1980, **(3d)** Missouri, given previous patterns of an average movement of about 40 straight-line miles per decade, **(3e)** It would not move, because the population would still be balanced at its 1990 center.

(4a) The Great Depression, **(4b)** People had fewer children and immigration fell dramatically, **(4c)** *Population Growth*—World War I, World War II, late 19th and early 20th century immigration; *Center of Population*—westward expansion, addition of new States and their populations to the country, growth in "Sunbelt" States.

Lights! Camera! Action!

In a very real sense, a census is like a photograph. It is a picture of a population. In the United States, we have been "snapping" these national pictures at a rate of one every 10 years beginning in 1790. While each census records only a moment in time, together the 21 U.S. decennial censuses are something like a motion picture. They give a history of the Nation's population growing and moving. From those frames of the movie, we can see how much we have changed. The table, *U.S. Population: Frame by Frame*, and the map, *Center of Population of the United States, 1790–1990*, show some of these changes. Use them to answer the questions below.

1. a. In 1790, the population of the United States was _____

   b. By 1990, _____ people inhabited the United States.

   c. How many people were added to the population between 1790 and 1990? _____

   d. What makes a nation's population change? _____

   e. In chart or graph form, show how the country's population has numerically changed from 1790 to 1990? Give an example on the back of this page or on a separate sheet of paper.

2. a. Between 1980 and 1990, the United States grew by _____ people.

   b. In what census years was the total U.S. population less than the size of the 1980 to 1990 increase? _____

3. The center of population is a kind of summary statistic. It does not tell you by how much any single area of the United States grew. The map, however, does give a graphic indication of where the population has grown and how it has moved.

   a. In what directions has the center of population moved? _____

   b. In 1790, in what State was the center located? _____

   c. In what census year was the center first located west of the Mississippi River? _____

   d. In what State do you expect the center to be located in the year 2000? _____

   e. If we added another 20 million people to the population by 2000 and every part of the United States got an equal share of the growth, where would the center move?

   _____

4. From 1930 to 1940, the United States population grew at its slowest rate (smallest percentage increase). It was only 7.3%.

   a. What major historic event was happening during that decade? _____

   b. How did it affect population growth? _____

   c. In the last 200 years, what other major historic events might have had an effect on U.S. population growth or the center of population?

   _____

   _____

U.S. Population: Frame by Frame

Census Date	Number
Conterminous U.S*	
1790 (Aug. 2)	3,929,214
1800 (August 4)	5,308,483
1810 (August 6)	7,239,881
1820 (August 7)	9,638,453
1830 (June 1)	12,866,020
1840 (June 1)	17,069,453
1850 (June 1)	23,191,876
1860 (June 1)	31,443,321
1870 (June 1)	39,818,449
1880 (June 1)	50,155,783
1890 (June 1)	62,947,714
1900 (June 1)	75,994,575
1910 (April 15)	91,972,266
1920 (January 1)	105,710,620
1930 (April 1)	122,775,046
1940 (April 1)	131,669,275
1950 (April 1)	150,697,361
1960 (April 1)	178,464,236
United States	
1950 (April 1)	151,325,798
1960 (April 1)	179,323,175
1970 (April 1)	203,302,031
1980 (April 1)	226,545,805
1990 (April 1)	248,709,873

* Enclosed by a common boundary. Excludes Alaska and Hawaii.
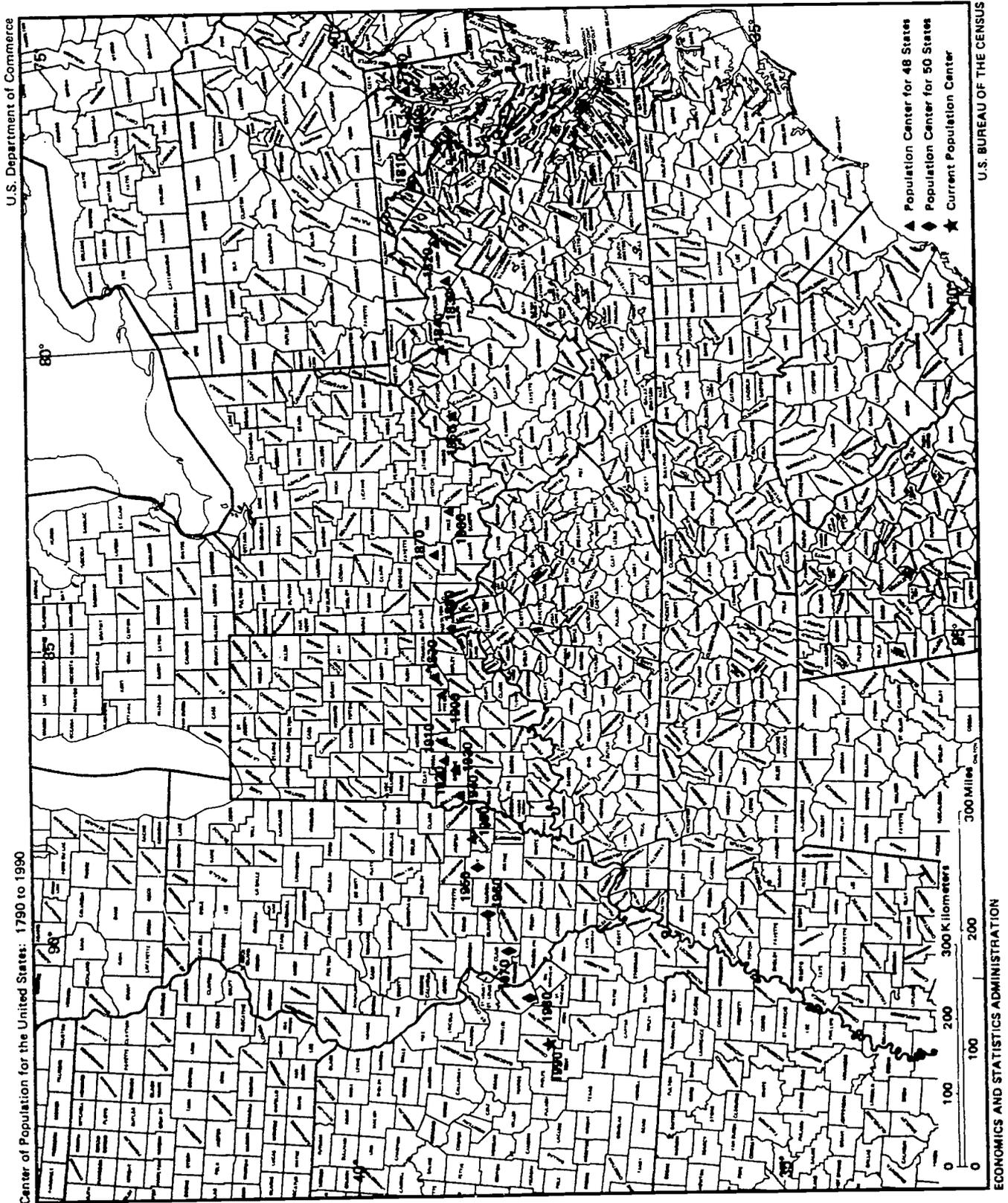
Center of Population for the United States: 1790 to 1990

U.S. Department of Commerce

Population Center for 48 States
Population Center for 50 States
Current Population Center

U.S. BUREAU OF THE CENSUS

ECONOMICS AND STATISTICS ADMINISTRATION

Population Trends and Congressional Apportionment

Number 1 – March 1991

This is the first in a series of profiles on results of the 1990 Census of Population and Housing.

The 1990 population counts set forth herein are subject to possible correction for undercount or overcount. The United States Department of Commerce is considering whether to correct these counts and will publish corrected counts, if any, not later than July 15, 1991.

The U.S. population grew about 10 percent from 1980 to 1990.

The resident population of the United States as of April 1, 1990, was 248.7 million persons. This is 9.8 percent above the 1980 census count of 226.5 million ·gure 1).

The growth rate for the 1980-90 de- .c is the second lowest in census history. The rate exceeded only the 7.3-percent increase of the Depression decade of the 1930's, when the rate of childbearing dropped close to two births per woman and net immigration from abroad was negligible. In contrast, the growth rate reached 18.5 percent in the 1950's, which included the peak of the post-World War II baby boom (1946–64) and a rate of childbearing averaging over three births per woman.

Despite an increase in net immigration since the 1950's, the growth rate has been lower subsequently. The decline is due primarily to the drop

in the rate of childbearing, which averaged about two births per woman during the past two decades.

The numerical growth in the 1980-90 decade was 22.2 million. The numerical growth also exceeded 20 million in the three preceding decades, with a peak figure of 28.0 million in the 1950's.

Population growth exceeded 30 percent per decade early in the Nation's history.

The population growth rate exceeded 30 percent in each decade from 1790 to 1860 and remained above 20 percent in each decade from 1860 to 1910, before dropping to 7.3 percent in the 1930's. The decrease is due primarily to the long-term decline in the average rate of childbearing from about seven births per woman at the beginning of the 19th century. The effect of declining fertility on the growth rate was offset in part by declining mortality, and by large-scale immigration during

most of the period from the 1840's to the 1920's.

The South and West continue to grow most rapidly.

The West had the highest growth rate (22.3 percent) among the four census regions of the United States during the 1980's (p. 4). This was down slightly from the 1970's (23.9 percent), but still more than twice the national rate. The South's growth rate fell more sharply (20.0 percent to 13.4 percent), but remained above the national rate. The growth rate rose in the Northeast (0.2 percent to 3.4 percent) and fell in the Midwest (4.0 percent to 1.4 percent). These two regions had growth rates far below the national rate in both the 1970's and 1980's.

The differences in growth rates among the regions in the 1980's reflect differences in migration among States and immigration, and in rates of natural increase (birth rates minus death rates). There was net migration into the South

Figure 1.
Population and Percent Change From Preceding Census for the United States: 1790 to 1990

⊤ Percent change
▓ Population in millions

1790 1800 1810 1820 1830 1840 1850 1860 1870 1880 1890 1900 1910 1920 1930 1940 1950 1960 1970 1980 1990
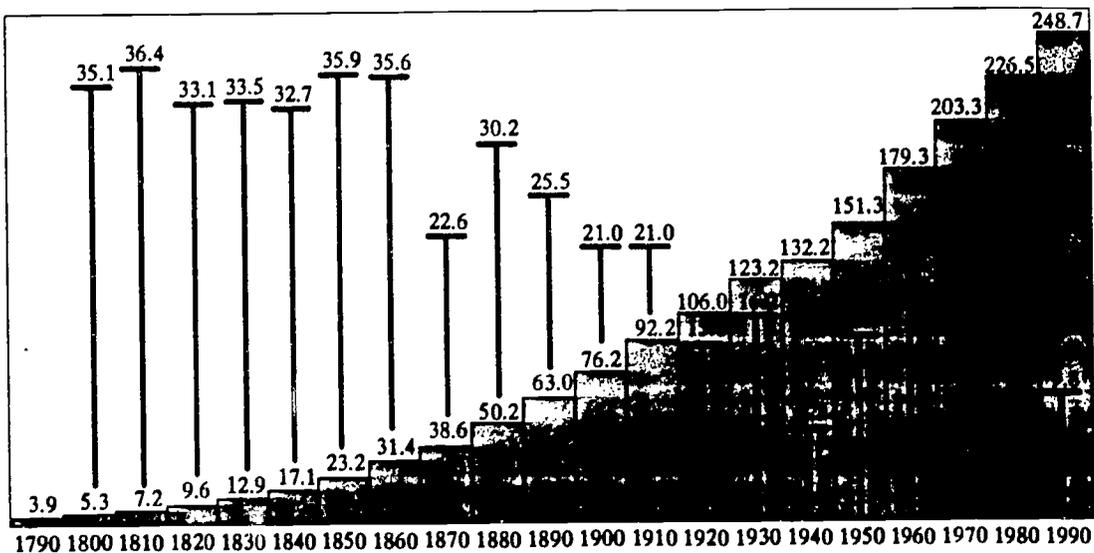
and West, negligible net migration for the Northeast, and net migration out of the Midwest. The rate of natural increase was highest in the West and lowest in the Northeast.

The South and West together accounted for 89 percent of national population growth in the 1980's and 90 percent in the 1970's. Their combined share of the national population increased from 48.0 percent in 1970 to 52.3 percent in 1980 and to 55.6 percent in 1990.

Since 1900, the West's share of national population has increased most rapidly among the four regions, while the Midwest's portion has declined most sharply. The South's share reached its lowest level in 1930 and 1960 (30.7 percent) and has increased in each decade since 1960. The Northeast's portion reached its 20th-century peak in 1910 and 1920 (28.0 percent) before declining in each subsequent decade.

Percent Share of Population

	1900	1990
Northeast	27.6	20.4
Midwest	34.6	24.0
South	32.2	34.4
West	5.7	21.2
	100.0	100.0

The list of the five most rapidly growing States has changed little in the past 50 years.

The five States with the highest percent increases in population during the 1980-90 decade were Nevada (50.1), Alaska (36.9), Arizona (34.8), Florida (32.7), and California (25.7) (figure 2). The top five States in the 1970's were Nevada (63.8), Arizona (53.1), Florida (43.5), Wyoming (41.3), and Utah (37.9).

During the past five decades (the 1940's through the 1980's), five States have dominated the list of most rapidly growing States. Arizona, Florida, and Nevada were included in each decade, while Alaska and California missed only in the 1970's. Nevada had the highest growth rate in each of the last three decades.

The only Northeastern or Midwestern States with growth rates above the national figure during the 1980's were New Hampshire (20.5 percent) and Vermont (10.0 percent), while Maine's growth rate was slightly lower (9.2 percent). These three were the only Northeastern or Midwestern States with growth rates above the national rate in the 1970's.

Four States lost population during the 1980's after increases in the 1970's: Iowa, North Dakota, West Virginia, and Wyoming. New York and Rhode Island

gained population in the 1980's after losses in the 1970's. The District of Columbia lost population in both decades.

Only two States had growth rates that were below the national rate in the 1970's and above it in the 1980's: Delaware and Maryland.

California, Florida, and Texas accounted for most of population growth during the 1980's.

The combined population growth in California (6.1 million), Florida (3.2 million), and Texas (2.8 million) in the 1980-90 decade totaled 12.0 million, or 54 percent of the 22.2-million national population increase (figure 3). This is the first time in the Nation's 200-year census history that as few as three States accounted for over half of the national population growth.

California's numerical growth of 6.1 million and its 27 percent share of U.S. population growth during the 1980's are record highs for a single State. Its population of 29.8 million in 1990 was larger than that of the 21 least populous States combined, and its 12.0 percent share of U.S. population was the highest in one State since 1860 when New York had 12.3 percent.

Figure 2.
Percent Change in Population for States: 1980 to 1990

Northeast
3.4

West
22.3

Midwest
1.4

Percent change
(Number of States in parentheses)

Loss (4 plus DC)
0.0 to 4.9 (19)
5.0 to 9.9 (8)
10.0 to 19.9 (13)
20.0 or more (6)

South
13.4

United States
9.8
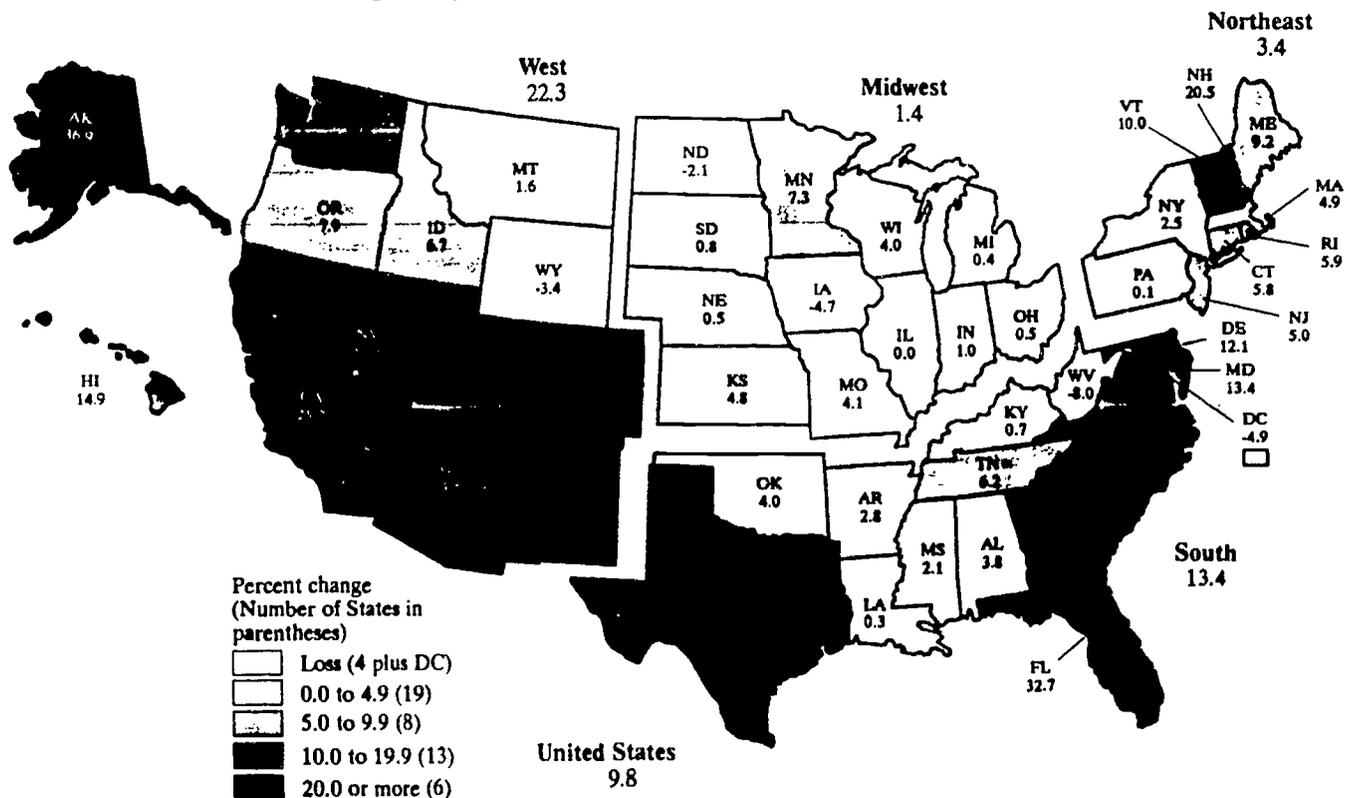
Nineteen seats will shift in the U.S. House of Representatives

As a result of population changes from 1980 to 1990, eight States will have more representatives in the 103rd Congress, which will convene in January 1993.[1] The largest gains will be in California (+7), Florida (+4), and Texas (+3), while five other States will each gain one seat. Thirteen States will have fewer representatives. The largest losses will be in New York (-3), and in Illinois, Michigan, Ohio, and Pennsylvania (-2 each). Eight other States will each lose one seat (figure 4).

Following the 1980 census, reapportionment shifted 17 seats. The largest gains were in Florida (+4), Texas (+3), and California (+2), and the largest losses were in New York (-5) and in Illinois, Ohio, and Pennsylvania (-2 each).

After the 1980 census, the South and West together gained all 17 shifted seats. In the upcoming reapportionment, the net increase of 7 seats in the South reflects a gain of 10 seats and a loss of 1 seat each in Kentucky, Louisiana, and West Virginia. The net increase of 8 seats in the West

[1]The 1990 census apportionment populations was 249.0 million. This number includes 0.9 million overseas military and Federal civilian employees and their dependents and excludes the District of Columbia.

reflects a gain of 9 seats and a loss of 1 seat in Montana.

	After 1980 Census	After 1990 Census
Northeast	-9	-7
Midwest	-8	-8
South	+8	+7
West	+9	+8

Source of the Data

The 1990 census data included here are from Bureau of the Census press releases

CB 90–232 (Dec. 26, 1990) and CB 91–07 (Jan. 7, 1991). Data for 1790–1980 are from 1980 Census of Population, Number of Inhabitants, United States Summary (PC80-1-A1), issued 1983.

For information about the publication program for the 1990 Census of Population and Housing and the wide range of data products issued by the Census Bureau, contact Customer Services, U.S. Bureau of the Census, Washington, DC 20233 (301-763-4100).

Figure 3.
Percent Distribution of U.S. Population Growth
for Selected Areas, by Decade: 1900 to 1990

Figure 4.
Congressional Representation in 1990 and Changes Since 1980 for States
(Changes shown in parentheses)
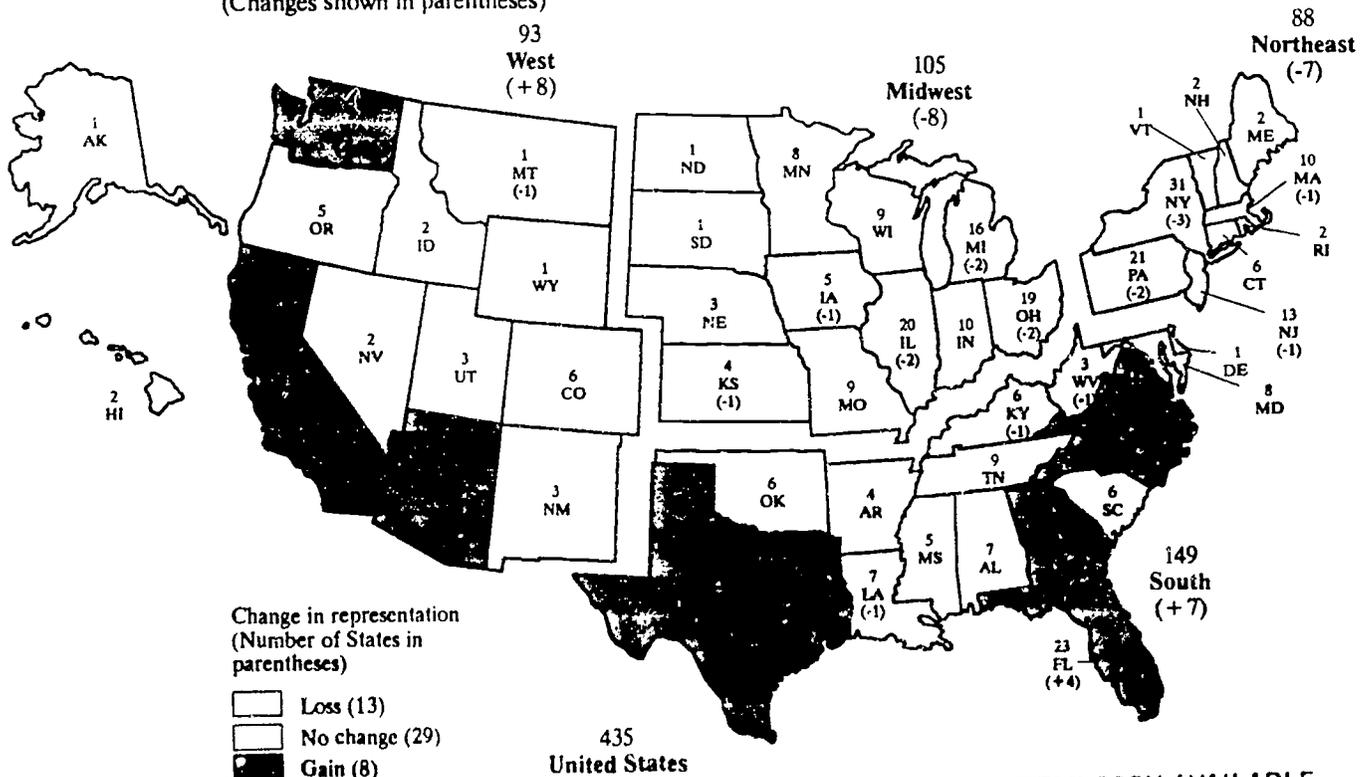
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Population: 1900 to 1990

(Data are for 1990 areas of States. Percent change and rank based on unrounded numbers)

United States Regions and Divisions States	Population (in thousands)						Change in population						Rank in population[2]			
							Number (in thousands)			Percent						
	1990[1]	1980	1970	1960	1950	1900	1980 to 1990	1970 to 1980	1960 to 1970	1980 to 1990	1970 to 1980	1960 to 1970	1990	1980	1950	1900
United States......	248 710	226 546	203 302	179 323	151 326	76 212	22 164	23 244	23 979	9.8	11.4	13.4	(X)	(X)	(X)	(X)
REGIONS AND DIVISIONS																
Northeast...............	50 809	49 135	49 061	44 678	39 478	21 047	1 674	75	4 383	3.4	0.2	9.8	4	3	3	3
New England	13 207	12 348	11 847	10 509	9 314	5 592	858	501	1 338	7.0	4.2	12.7	9	8	8	7
Middle Atlantic...........	37 602	36 787	37 213	34 168	30 164	15 455	815	-426	3 045	2.2	-1.1	8.9	4	3	2	2
Midwest	59 669	58 866	56 590	51 619	44 461	26 333	803	2 275	4 971	1.4	4.0	9.6	2	2	2	1
East North Central.......	42 009	41 682	40 263	36 225	30 399	15 986	327	1 419	4 038	0.8	3.5	11.1	2	1	1	1
West North Central	17 660	17 183	16 328	15 394	14 061	10 347	476	856	933	2.8	5.2	6.1	6	6	6	4
South	85 446	75 372	62 813	54 973	47 197	24 524	10 074	12 559	7 840	13.4	20.0	14.3	1	1	1	2
South Atlantic...........	43 567	36 959	30 679	25 972	21 182	10 443	6 608	6 280	4 707	17.9	20.5	18.1	1	2	3	3
East South Central.	15 176	14 666	12 808	12 050	11 477	7 548	510	1 858	758	3.5	14.5	6.3	7	7	7	5
West South Central	26 703	23 747	19 326	16 951	14 538	6 532	2 956	4 421	2 375	12.4	22.9	14.0	5	5	5	6
West	52 786	43 172	34 838	28 053	20 190	4 309	9 614	8 334	6 785	22.3	23.9	24.2	3	4	4	4
Mountain	13 659	11 373	8 290	6 855	5 075	1 675	2 286	3 083	1 435	20.1	37.2	20.9	8	9	9	9
Pacific	39 127	31 800	26 548	21 198	15 115	2 634	7 328	5 251	5 350	23.0	19.8	25.2	3	4	4	8
STATES																
New England																
Maine..................	1 228	1 125	994	969	914	694	103	131	24	9.2	13.2	2.5	38	38	35	31
New Hampshire	1 109	921	738	607	533	412	189	183	131	20.5	24.8	21.5	40	42	44	37
Vermont................	563	511	445	390	378	344	51	67	55	10.0	15.0	14.1	48	48	46	39
Massachusetts..........	6 016	5 737	5 689	5 149	4 691	2 805	279	48	541	4.9	0.8	10.5	13	11	9	7
Rhode Island	1 003	947	950	859	792	429	56	-3	90	5.9	-0.3	10.5	43	40	36	35
Connecticut	3 287	3 108	3 032	2 535	2 007	908	180	75	497	5.8	2.5	19.6	27	25	28	29
Middle Atlantic																
New York...............	17 990	17 558	18 241	16 782	14 830	7 269	432	-683	1 459	2.5	-3.7	8.7	2	2	1	1
New Jersey	7 730	7 365	7 171	6 067	4 835	1 884	365	194	1 104	5.0	2.7	18.2	9	9	8	16
Pennsylvania	11 882	11 864	11 801	11 319	10 498	6 302	18	63	481	0.1	0.5	4.3	5	4	3	2
East North Central																
Ohio..................	10 847	10 798	10 657	9 706	7 947	4 158	49	140	951	0.5	1.3	9.8	7	6	5	4
Indiana................	5 544	5 490	5 195	4 662	3 934	2 516	54	295	533	1.0	5.7	11.4	14	12	12	8
Illinois.................	11 431	11 427	11 110	10 081	8 712	4 822	4	316	1 029	-	2.8	10.2	6	5	4	3
Michigan...............	9 295	9 262	8 882	7 823	6 372	2 421	33	380	1 059	0.4	4.3	13.5	8	8	7	9
Wisconsin..............	4 892	4 706	4 418	3 952	3 435	2 069	186	288	466	4.0	6.5	11.8	16	16	14	13
West North Central																
Minnesota	4 375	4 076	3 806	3 414	2 982	1 751	299	270	392	7.3	7.1	11.5	20	21	18	19
Iowa..................	2 777	2 914	2 825	2 758	2 621	2 232	-137	88	68	-4.7	3.1	2.5	30	27	22	10
Missouri...............	5 117	4 917	4 678	4 320	3 955	3 107	200	239	358	4.1	5.1	8.3	15	15	11	5
North Dakota	639	653	618	632	620	319	-14	35	-15	-2.1	5.7	-2.3	47	46	41	40
South Dakota...........	696	691	666	681	653	402	5	25	-14	0.8	3.7	-2.1	45	45	40	38
Nebraska	1 578	1 570	1 485	1 411	1 326	1 066	9	84	74	0.5	5.7	5.2	36	35	33	27
Kansas................	2 478	2 364	2 249	2 179	1 905	1 470	114	115	70	4.8	5.1	3.2	32	32	31	22
South Atlantic																
Delaware	666	594	548	446	318	185	72	46	102	12.1	8.4	22.8	46	47	47	44
Maryland	4 781	4 217	3 924	3 101	2 343	1 188	564	293	823	13.4	7.5	26.5	19	18	24	26
District of Columbia	607	638	757	764	802	279	-31	-118	-7	-4.9	-15.6	-1.0	(3)	(3)	(3)	(3)
Virginia................	6 187	5 347	4 651	3 967	3 319	1 854	841	695	684	15.7	14.9	17.3	12	14	15	17
West Virginia	1 793	1 950	1 744	1 860	2 006	959	-156	205	-116	-8.0	11.8	-6.2	34	34	29	28
North Carolina	6 629	5 882	5 084	4 556	4 062	1 894	747	797	528	12.7	15.7	11.6	10	10	10	15
South Carolina	3 487	3 122	2 591	2 383	2 117	1 340	365	531	208	11.7	20.5	8.7	25	24	27	24
Georgia	6 478	5 463	4 588	3 943	3 445	2 216	1 015	875	645	18.6	19.1	16.4	11	13	13	11
Florida................	12 938	9 746	6 791	4 952	2 771	529	3 192	2 955	1 840	32.7	43.5	37.2	4	7	20	33
East South Central																
Kentucky	3 685	3 661	3 221	3 038	2 945	2 147	25	440	183	0.7	13.7	6.0	23	23	19	12
Tennessee..............	4 877	4 591	3 926	3 567	3 292	2 021	286	665	359	6.2	16.9	10.1	17	17	16	14
Alabama...............	4 041	3 894	3 444	3 267	3 062	1 829	147	450	178	3.8	13.1	5.4	22	22	17	18
Mississippi	2 573	2 521	2 217	2 178	2 179	1 551	53	304	39	2.1	13.7	1.8	31	31	26	20
West South Central																
Arkansas	2 351	2 286	1 923	1 786	1 910	1 312	64	383	137	2.8	18.9	7.7	33	33	30	25
Louisiana	4 220	4 206	3 645	3 257	2 684	1 382	14	561	388	0.3	15.4	11.9	21	19	21	23
Oklahoma..............	3 146	3 025	2 559	2 328	2 233	790	120	466	231	4.0	18.2	9.9	28	26	25	30
Texas.................	16 987	14 229	11 199	9 580	7 711	3 049	2 757	3 031	1 619	19.4	27.1	16.9	3	3	6	6
Mountain																
Montana...............	799	787	694	675	591	243	12	92	20	1.6	13.3	2.9	44	44	42	42
Idaho	1 007	944	713	667	589	162	63	231	46	6.7	32.4	6.9	42	41	43	45
Wyoming	454	470	332	330	291	93	-16	137	2	-3.4	41.3	0.7	50	49	48	48
Colorado	3 294	2 890	2 210	1 754	1 325	540	404	680	456	14.0	30.8	26.0	26	28	34	32
New Mexico.............	1 515	1 303	1 017	951	681	195	212	286	66	16.3	28.1	6.9	37	37	39	43
Arizona................	3 665	2 718	1 775	1 302	750	123	947	943	473	34.8	53.1	36.3	24	29	37	47
Utah..................	1 723	1 461	1 059	891	689	277	262	402	169	17.9	37.9	18.9	35	36	38	41
Nevada................	1 202	800	489	285	160	42	401	312	203	50.1	63.8	71.3	39	43	49	50
Pacific																
Washington	4 867	4 132	3 413	2 853	2 379	518	735	719	560	17.8	21.1	19.6	18	20	23	34
Oregon................	2 842	2 633	2 092	1 769	1 521	414	209	542	323	7.9	25.9	18.3	29	30	32	36
California..............	29 760	23 668	19 971	15 717	10 586	1 485	6 092	3 697	4 254	25.7	18.5	27.1	1	1	2	21
Alaska	550	402	303	226	129	64	148	99	76	36.9	32.8	33.8	49	50	50	49
Hawaii	1 108	965	770	633	500	154	144	195	137	14.9	25.3	21.7	41	39	45	46

(X) Not applicable.   - Represents zero.

[1]The 1990 population counts set forth herein are subject to possible correction for undercount or overcount. The United States Department of Commerce is considering whether to correct these counts and will publish corrected counts, if any, not later than July 15, 1991.   [2]The 4 regions, 9 divisions, and 50 States are ranked separately.   [3]If the District of Columbia were included with the States, it would rank 48 in 1990, 47 in 1980, 36 in 1950, and 41 in 1900.

U.S. Department of Commerce
Economics and Statistics Administration
BUREAU OF THE CENSUS

Race and Hispanic Origin

Number 2 - June 1991

This is the second in a series of profiles on results of the 1990 Census of Population and Housing.

The 1990 population counts set forth herein are subject to possible correction for undercount or overcount. The United States Department of Commerce is considering whether to correct these counts and will publish corrected counts, if any, not later than July 15, 1991.

The Nation continued to increase in racial and Hispanic diversity during the 1980's.

The resident population of the United States increased from 226.5 million in 1980 to 248.7 million in 1990, or by 9.8 percent. This compares with a growth rate of 13.3

percent in the 1960's and 11.5 percent in the 1970's.[1]

Data on race and Hispanic origin from the census are based on self-identification questions and are not totally comparable between censuses. (See footnote 2 on page 2.)

Boosted by a high level of immigration, the Asian or Pacific Islander population more than doubled (up 108 percent) from 3.5 million in 1980 to 7.3 million in 1990 (figure 1).

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[1] For a discussion of historical population trends, see 1990 Census Profile, "Population Trends and Congressional Apportionment," Number 1 (March 1991). In that report, the growth rates for the 1960's (13.4 percent) and the 1970's (11.4 percent) reflect minor corrections to the 1970 census which are not available by race and Hispanic origin.
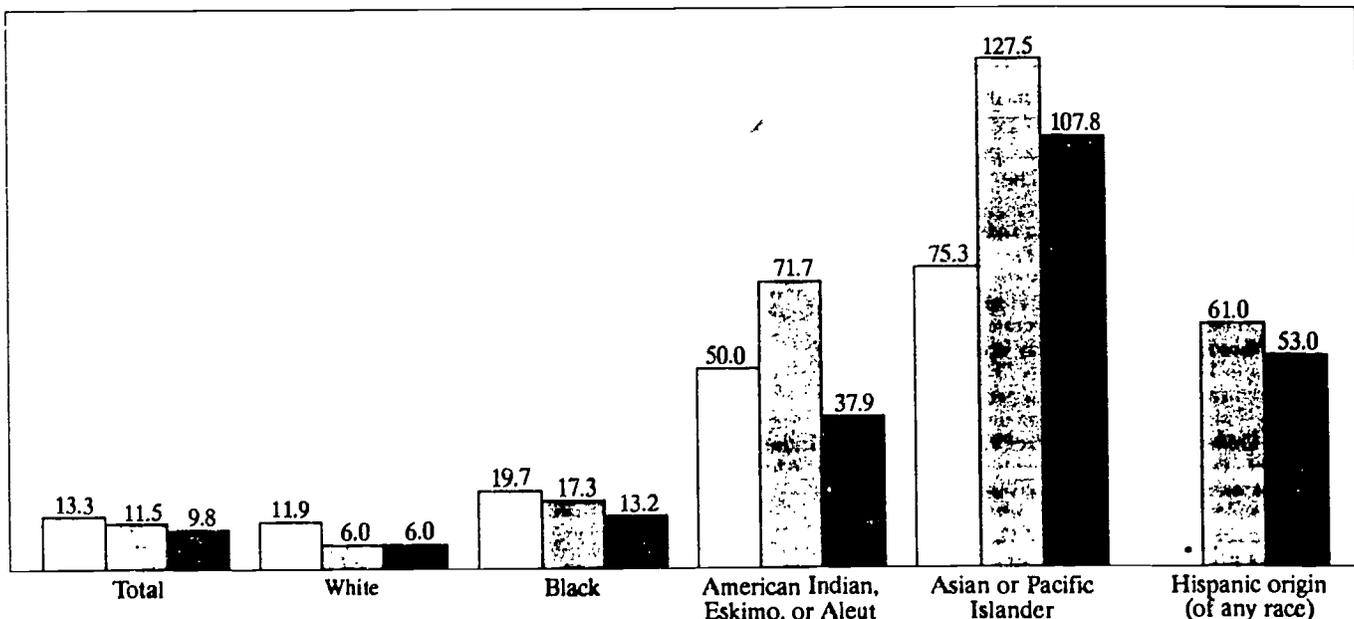
The Hispanic origin population (of any race), which also had a high level of immigration, increased by 53 percent from 14.6 million to 22.4 million. The American Indian, Eskimo, or Aleut population also increased rapidly, rising 38 percent from 1.4 million to nearly 2 million.

The Black population increased from 26.5 million in 1980 to nearly 30 million in 1990. Its growth rate of 13.2 percent was about one-third higher than the national growth rate. The White population rose from 188.4 million to 199.7 million, an increase of 6.0 percent.

As a result of these growth rates, the Hispanic origin population and each race group, except White, increased as a proportion of total population during the 1980's, as occurred also during the 1970's (figure 2).
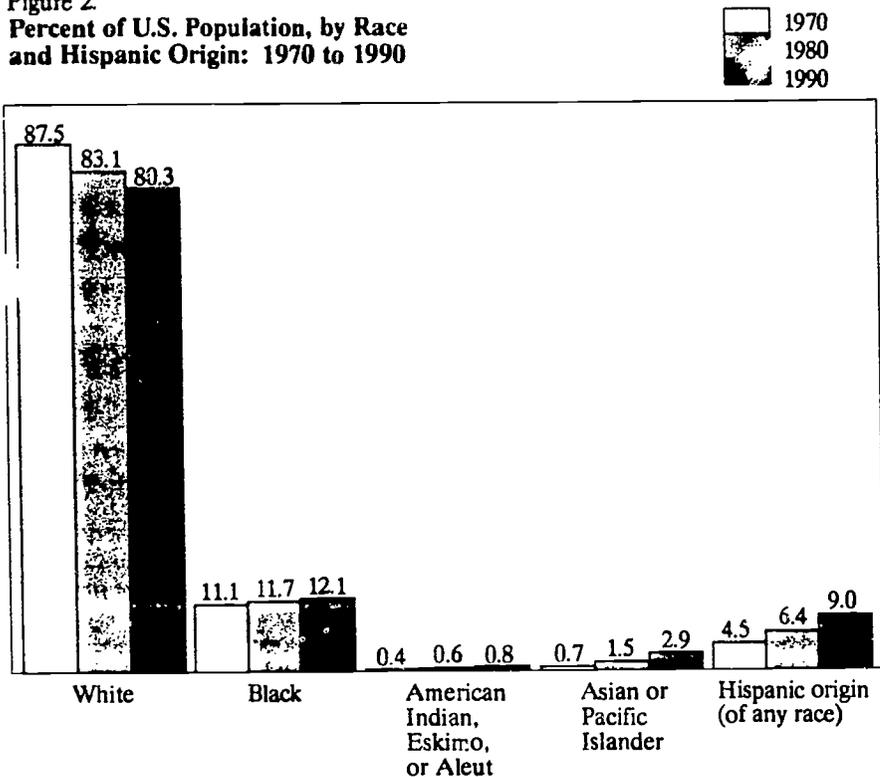
Figure 1.
Percent Change in Population, by Race and Hispanic Origin for the United States: 1960 to 1990

1960 to 1970
1970 to 1980
1980 to 1990

*Not available

2

Percent of U.S. Population, by Race and Hispanic Origin: 1970 to 1990

☐ 1970
▧ 1980
■ 1990

| White | Black | American Indian, Eskimo, or Aleut | Asian or Pacific Islander | Hispanic origin (of any race) |

87.5 83.1 80.3

11.1 11.7 12.1

0.4 0.6 0.8

0.7 1.5 2.9

4.5 6.4 9.0

Midwest (7 percent). The White population increased 15 percent in the West and 11 percent in the South and declined slightly (less than 1 percent) in the Northeast and Midwest.

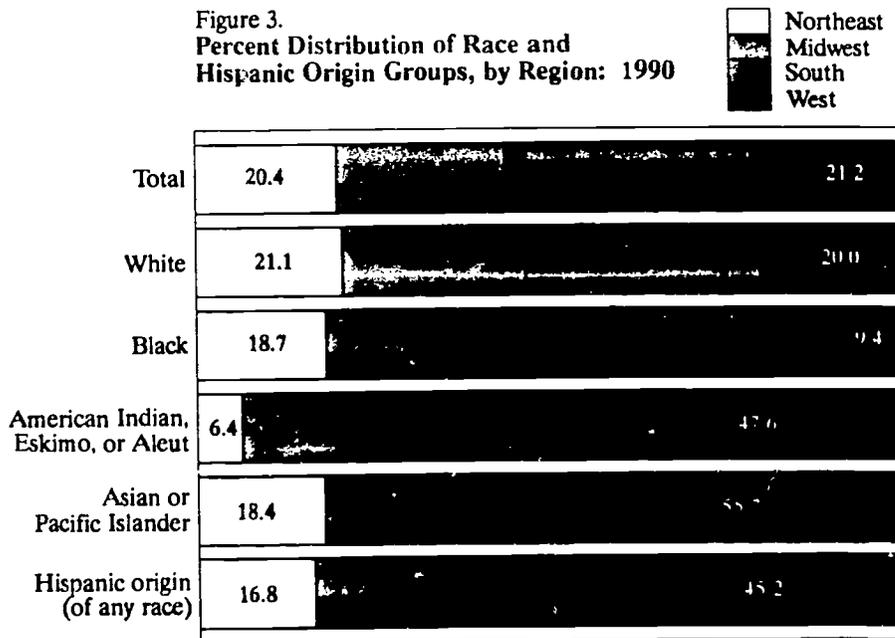**Racial and Hispanic diversity is greatest in the West.**

The regions' shares of national population in 1990 ranged from 34 percent in the South to 20 percent in the Northeast (figure 3). The distribution of the White population was similar to that of the total population; however, the distributions of each race group, except White, and of the Hispanic origin population were strikingly different from the distribution of the total population.

Most Blacks (53 percent) lived in the South in 1990 while only 9 percent lived in the West. The share of the Black population residing in the South dropped from 90 percent in 1900 to 53 percent in 1970 and has not changed significantly since.

In 1990, the West had the largest share among the 4 regions of the American Indian, Eskimo, or Aleut population (48 percent), the Asian or Pacific Islander population (56 percent), and the Hispanic origin population (45 percent).

With a population in 1990 that was 67 percent White, not of Hispanic origin; 5 percent Black; 2 percent American Indian, Eskimo, or Aleut; 8 percent Asian or Pacific Islander; and 19 percent Hispanic, the West had the greatest racial and Hispanic diversity among the regions (pp. 4–5). The Midwest was the least diverse (corresponding percentages of 86, 10, 1, 1, and 3).

The White, not of Hispanic origin population (that is, persons who reported "White" on the race question and "Not Spanish/Hispanic" on the Hispanic origin question) increased from 180.3 million in 1980 to 188.1 million in 1990, or by 4.4 percent. The White, not of Hispanic origin population dropped from 83.5 percent of the total population in 1970 to 79.6 percent in 1980 and to 75.6 percent in 1990.

Regional patterns of growth vary by race and Hispanic origin.

During the 1980's, population growth rates were above the national rate in the West (22.3 percent) and South (13.4 percent) and lower in the Northeast (3.4 percent) and Midwest (1.4 percent). The

Asian or Pacific Islander population grew extremely rapidly in each region: 139 percent in the South and Northeast, 97 percent in the Midwest, and 95 percent in the West (pp. 4–5). The Hispanic growth rate ranged from 62 percent in the West to 35 percent in the Midwest. The American Indian, Eskimo, or Aleut growth rate ranged from 58 percent in the Northeast to 30 percent in the West.

The Black growth rate was highest in the West (25 percent) and lowest in the

²Data on the White, Black, American Indian (including Eskimo or Aleut), Asian or Pacific Islander, and "Other race" populations are based on a race question. Data on the Hispanic origin population are based on a separate question, and thus Hispanic persons may be of any race. In both 1980 and 1990, Hispanic persons represented the vast majority of persons reporting "Other race": 5.8 million out of 6.8 million in 1980 and 9.6 million out of 9.8 million in 1990. Because of improvements in census procedures, and changes in the census questionnaire and in the way persons report race and ethnic origin, data on race and Hispanic origin are not totally comparable between censuses. The number of groups included in the Asian or Pacific Islander population increased from 1970 to 1980 and again from 1980 to 1990. See sources listed on p.8.

Figure 3.
Percent Distribution of Race and Hispanic Origin Groups, by Region: 1990

☐ Northeast
▧ Midwest
▨ South
■ West

	Northeast		West
Total	20.4		21.2
White	21.1		20.0
Black	18.7		9.4
American Indian, Eskimo, or Aleut	6.4		47.6
Asian or Pacific Islander	18.4		55.7
Hispanic origin (of any race)	16.8		45.2

73

The Black Population of States

The Black population exceeded 1 million in 16 States in 1990.

Three States had Black populations exceeding 2 million in 1990: New York, California, and Texas (figure 4). New York, which was the only State with 2 million or more Blacks in 1980 (2,402,000), had the largest Black population in both censuses.

With the exception of Maryland, which replaced Ohio as the 10th State, the 10 States with the largest Black populations in 1990 were the same States as in 1980.

Florida rose from sixth to fourth largest while Illinois fell from fourth to sixth.

The 10 States with the largest Black populations in 1990 are either in the South region (pp. 4–5) or are non-Southern States with some of the Nation's largest metropolitan areas. These latter States—New York, California, Illinois, and Michigan—were major recipients of the large-scale migration of Blacks from the South, especially during the 1940's, 1950's, and 1960's. In 1940, the only States with 1 million or more Blacks were Georgia (1,085,000) and Mississippi (1,075,000). New York (571,000), which ranked ninth, was the only non-Southern State among the top 10 in Black population in 1940.

In addition to the 10 States shown in figure 4, 6 other States had Black populations of 1 million or more in 1990: Virginia (1,163,000), Ohio (1,155,000), Pennsylvania (1,090,000), South Carolina (1,040,000), New Jersey (1,037,000), and Alabama (1,021,000). In 4 of these 16 States, the Black population reached 1 million during the 1980's: Maryland, South Carolina, New Jersey, and Alabama.

The Black population is slightly more concentrated than the total population. A majority of the Black population lived in 8 States in 1990 compared to 9 States for the total population. Fifty-eight percent of the Black population resided in the 10 States with the largest Black populations compared to 54 percent of the total population in the 10 most populous States.
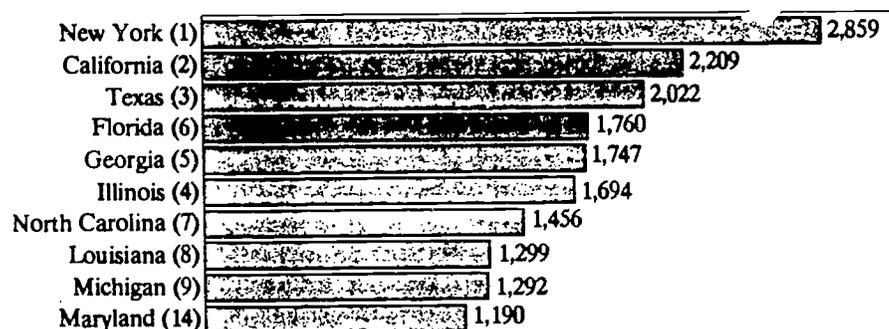
The largest increase in Black population in the 1980–90 decade was in New York (457,000), followed by Florida and California (figure 5). The 10 States with the largest increases together accounted for 74 percent of national Black population growth during the decade.

Among the 12 States with Black populations of 1 million or more in 1980, the Black growth rate in the 1980–90 decade ranged from 31 percent in Florida to 1 percent in Illinois (pp. 4–5). Among the 17 States with Black populations of 100,000 to 1 million in 1980, the growth rate ranged from 42 percent in Washington State to no change in Arkansas. The District of Columbia's Black population declined 11 percent during the decade.

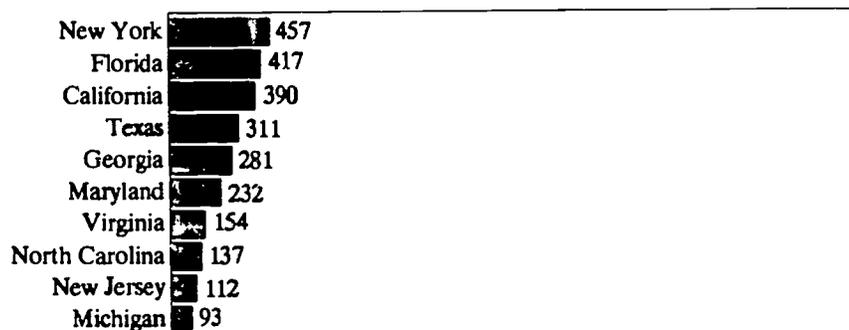**The highest percentages of Black population are in Southern States.**

While 6 of the 10 States with the largest Black populations in 1990 are in the South, all ten of the States with the highest percentage of Black population are in the South (figure 6), ranging from Mississippi (35.6 percent) to Tennessee (16.0 percent). (The corresponding figure for the District of Columbia was 65.8 percent.) Four States outside the South had Black percentages above the national figure of 12.1 percent: New York (15.9 percent), Illinois (14.8 percent), Michigan (13.9 percent), and New Jersey (13.4 percent). There were nine States in which Blacks represented less than 1 percent of the population in 1990: Maine, New Hampshire, Vermont, North Dakota, South Dakota, Montana, Idaho, Wyoming, and Utah.

Figure 4.
Ten States With the Largest Black Population: 1990
(In thousands. Rank in 1980 in parentheses)

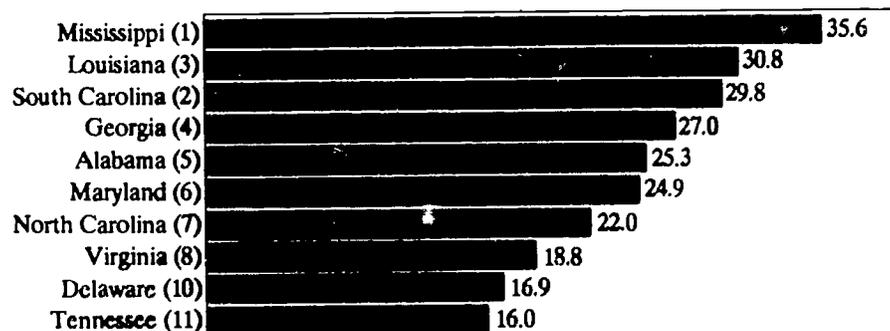| State (Rank 1980)	Population
New York (1)	2,859
California (2)	2,209
Texas (3)	2,022
Florida (6)	1,760
Georgia (5)	1,747
Illinois (4)	1,694
North Carolina (7)	1,456
Louisiana (8)	1,299
Michigan (9)	1,292
Maryland (14)	1,190

Scales are not comparable in corresponding figures on pp. 3, 6, 7, and 8.

Figure 5.
Ten States With the Largest Increases in
Black Population: 1980 to 1990
(In thousands)

State	Increase
New York	457
Florida	417
California	390
Texas	311
Georgia	281
Maryland	232
Virginia	154
North Carolina	137
New Jersey	112
Michigan	93

Scales are not comparable in corresponding figures on pp. 3, 6, 7, and 8.

Figure 6.
Ten States With the Highest Percentage Black: 1990
(Rank in 1980 in parentheses)

State (Rank 1980)	Percent
Mississippi (1)	35.6
Louisiana (3)	30.8
South Carolina (2)	29.8
Georgia (4)	27.0
Alabama (5)	25.3
Maryland (6)	24.9
North Carolina (7)	22.0
Virginia (8)	18.8
Delaware (10)	16.9
Tennessee (11)	16.0

Scales are not comparable in corresponding figures on pp. 3, 6, 7, and 8.

Race and Hispanic Origin: 1990 and 1980

(Percent change and percent distribution based on unrounded numbers. Hyphen (-) represents 0.0)

United States Regions and Divisions States	All persons Number (in thousands) 1990[1]	1980	1980 to 1990 percent change	White Number (in thousands) 1990[1]	1980	1980 to 1990 percent change	Black Number (in thousands) 1990[1]	1980	1980 to 1990 percent change	American Indian, Eskimo, or Aleut Number (in thousands) 1990[1]	1980	1980 to 1990 percent change	Asian or Pacific Islander Number (in thousands) 1990[1]	1980	1980 to 1990 percent change
United States ...	248 710	226 546	9.8	199 686	188 372	6.0	29 986	26 495	13.2	1 959	1 420	37.9	7 274	3 500	107.8
REGIONS AND DIVISIONS															
Northeast............	50 809	49 135	3.4	42 069	42 326	-0.6	5 613	4 848	15.8	125	79	58.3	1 335	560	138.6
New England........	13 207	12 348	7.0	12 033	11 586	3.9	628	475	32.2	33	22	51.8	232	81	186.0
Middle Atlantic......	37 602	36 787	2.2	30 036	30 741	-2.3	4 986	4 374	14.0	92	57	60.8	1 104	479	130.5
Midwest	59 669	58 866	1.4	52 018	52 195	-0.3	5 716	5 337	7.1	338	248	36.0	768	390	96.9
East North Central....	42 009	41 682	0.8	35 764	36 150	-1.1	4 817	4 549	5.9	150	106	41.6	573	303	89.0
West North Central ...	17 660	17 183	2.8	16 254	16 044	1.3	899	789	13.9	188	142	31.9	195	87	124.6
South	85 446	75 372	13.4	65 582	58 960	11.2	15 829	14 048	12.7	563	372	51.2	1 122	470	138.9
South Atlantic	43 567	36 959	17.9	33 391	28 659	16.5	8 924	7 652	16.6	172	119	45.1	631	261	142.2
East South Central ...	15 176	14 666	3.5	12 049	11 702	3.0	2 977	2 869	3.8	41	22	81.7	84	41	105.6
West South Central ...	26 703	23 747	12.4	20 142	18 599	8.3	3 929	3 527	11.4	350	231	51.3	407	168	141.9
West................	52 786	43 172	22.3	40 017	34 890	14.7	2 828	2 262	25.0	933	721	29.5	4 048	2 081	94.5
Mountain	13 659	11 373	20.1	11 762	9 961	18.1	374	269	39.0	481	364	31.9	217	98	120.6
Pacific	39 127	31 800	23.0	28 255	24 929	13.3	2 454	1 993	23.2	453	356	27.1	3 831	1 982	93.2
STATES															
New England	13 207	12 348	7.0	12 033	11 586	3.9	628	475	32.2	33	22	51.8	232	81	186.0
Maine.............	1 228	1 125	9.2	1 208	1 110	8.9	5	3	64.3	6	4	46.8	7	3	126.8
New Hampshire......	1 109	921	20.5	1 087	910	19.5	7	4	80.4	2	1	57.8	9	3	219.0
Vermont...........	563	511	10.0	555	507	9.5	2	1	71.9	2	1	72.4	3	1	137.3
Massachusetts.......	6 016	5 737	4.9	5 405	5 363	0.8	300	221	35.6	12	8	58.1	143	50	189.7
Rhode Island........	1 003	947	5.9	917	897	2.3	39	28	40.9	4	3	40.5	18	5	245.6
Connecticut	3 287	3 108	5.8	2 859	2 799	2.1	274	217	26.1	7	5	46.8	51	19	167.3
Middle Atlantic	37 602	36 787	2.2	30 036	30 741	-2.3	4 986	4 374	14.0	92	57	60.8	1 104	479	130.5
New York...........	17 990	17 558	2.5	13 385	13 961	-4.1	2 859	2 402	19.0	63	40	58.3	694	311	123.4
New Jersey..........	7 730	7 365	5.0	6 130	6 127	-	1 037	925	12.1	15	8	78.3	273	104	162.4
Pennsylvania..	11 882	11 864	0.1	10 520	10 652	-1.2	1 090	1 047	4.1	15	9	55.7	137	64	113.5
East North Central	42 009	41 682	0.8	35 764	36 150	-1.1	4 817	4 549	5.9	150	106	41.6	573	303	89.0
Ohio...............	10 847	10 798	0.5	9 522	9 597	-0.8	1 155	1 077	7.3	20	12	66.3	91	48	90.7
Indiana............	5 544	5 490	1.0	5 021	5 004	0.3	432	415	4.2	13	8	62.3	38	21	83.0
Illinois	11 431	11 427	-	8 953	9 233	-3.0	1 694	1 675	1.1	22	16	34.1	285	160	78.7
Michigan	9 295	9 262	0.4	7 756	7 872	-1.5	1 292	1 199	7.7	56	40	38.9	105	57	84.9
Wisconsin	4 892	4 706	4.0	4 513	4 443	1.6	245	183	33.9	39	29	33.5	54	18	195.0
West North Central....	17 660	17 183	2.8	16 254	16 044	1.3	899	789	13.9	188	142	31.9	195	87	124.6
Minnesota	4 375	4 076	7.3	4 130	3 936	4.9	95	53	78.0	50	35	42.5	78	27	193.5
Iowa..............	2 777	2 914	-4.7	2 683	2 839	-5.5	48	42	15.3	7	5	34.7	25	12	120.1
Missouri...........	5 117	4 917	4.1	4 486	4 346	3.2	548	514	6.6	20	12	61.0	41	23	78.7
North Dakota.......	639	653	-2.1	604	626	-3.4	4	3	37.2	26	20	28.6	3	2	74.9
South Dakota.......	696	691	0.8	638	640	-0.3	3	2	52.0	51	45	12.5	3	2	79.7
Nebraska...........	1 578	1 570	0.5	1 481	1 490	-0.7	57	48	18.6	12	9	35.0	12	7	77.4
Kansas............	2 478	2 364	4.8	2 232	2 168	2.9	143	126	13.4	22	15	42.9	32	15	110.6
South Atlantic	43 567	36 959	17.9	33 391	28 659	16.5	8 924	7 652	16.6	172	119	45.1	631	261	142.2
Delaware...	666	594	12.1	535	488	9.7	112	96	17.3	2	1	52.0	9	4	120.3
Maryland	4 781	4 217	13.4	3 394	3 159	7.4	1 190	958	24.2	13	8	61.7	140	64	117.4
District of Columbia ...	607	638	-4.9	180	172	4.6	400	449	-11.0	1	1	42.2	11	7	69.0
Virginia............	6 187	5 347	15.7	4 792	4 230	13.3	1 163	1 009	15.3	15	9	61.6	159	66	140.2
West Virginia	1 793	1 950	-8.0	1 726	1 875	-8.0	56	65	-13.5	2	2	52.7	7	5	43.6
North Carolina......	6 629	5 882	12.7	5 008	4 458	12.4	1 456	1 319	10.4	80	65	24.0	52	21	146.3
South Carolina......	3 487	3 122	11.7	2 407	2 147	12.1	1 040	949	9.6	8	6	43.2	22	12	89.1
Georgia...........	6 478	5 463	18.6	4 600	3 947	16.5	1 747	1 465	19.2	13	8	75.3	76	24	209.9
Florida.............	12 938	9 746	32.7	10 749	8 185	31.3	1 760	1 343	31.0	36	19	88.7	154	57	171.9
East South Central	15 176	14 666	3.5	12 049	11 702	3.0	2 977	2 869	3.8	41	22	81.7	84	41	105.6
Kentucky...........	3 685	3 661	0.7	3 392	3 379	0.4	263	259	1.3	6	4	59.8	18	10	78.7
Tennessee..........	4 877	4 591	6.2	4 048	3 835	5.5	778	726	7.2	10	5	96.7	32	14	126.0
Alabama	4 041	3 894	3.8	2 976	2 873	3.6	1 021	996	2.4	17	8	117.7	22	10	123.9
Mississippi..........	2 573	2 521	2.1	1 633	1 615	1.1	915	887	3.1	9	6	37.9	13	7	75.6
West South Central....	26 703	23 747	12.4	20 142	18 599	8.3	3 929	3 527	11.4	350	231	51.3	407	168	141.9
Arkansas	2 351	2 286	2.8	1 945	1 890	2.9	374	374	-	13	9	35.5	13	7	85.9
Louisiana..........	4 220	4 206	0.3	2 839	2 912	-2.5	1 299	1 238	4.9	19	12	53.7	41	24	72.8
Oklahoma	3 146	3 025	4.0	2 584	2 598	-0.5	234	205	14.2	252	169	49.0	34	17	94.3
Texas..............	16 987	14 229	19.4	12 775	11 198	14.1	2 022	1 710	18.2	66	40	64.4	319	120	165.5
Mountain	13 659	11 373	20.1	11 762	9 961	18.1	374	269	39.0	481	364	31.9	217	98	120.6
Montana	799	787	1.6	741	740	0.1	2	2	33.3	48	37	27.9	4	3	70.2
Idaho.............	1 007	944	6.7	950	902	5.4	3	3	24.1	14	11	31.0	9	6	57.4
Wyoming	454	470	-3.4	427	446	-4.4	4	3	7.2	9	7	33.6	3	2	42.5
Colorado	3 294	2 890	14.0	2 905	2 571	13.0	133	102	30.9	28	18	53.7	60	30	100.1
New Mexico.........	1 515	1 303	16.3	1 146	978	17.2	30	24	25.8	134	106	26.6	14	7	106.9
Arizona	3 665	2 718	34.8	2 963	2 241	32.2	111	75	47.4	204	153	33.2	55	22	150.6
Utah..............	1 723	1 461	17.9	1 616	1 383	16.9	12	9	25.5	24	19	26.1	33	15	121.4
Nevada	1 202	800	50.1	1 013	700	44.6	79	51	54.5	20	13	47.6	38	14	169.2
Pacific	39 127	31 800	23.0	28 255	24 929	13.3	2 454	1 993	23.2	453	356	27.1	3 831	1 982	93.2
Washington	4 867	4 132	17.8	4 309	3 779	14.0	150	106	41.9	81	61	34.0	211	103	105.7
Oregon	2 842	2 633	7.9	2 637	2 491	5.9	46	37	24.6	38	27	40.9	69	35	99.2
California	29 760	23 668	25.7	20 524	18 031	13.8	2 209	1 819	21.4	242	201	20.3	2 846	1 254	127.0
Alaska	550	402	36.9	415	310	34.1	22	14	64.6	86	64	33.7	20	8	144.9
Hawaii	1 108	965	14.9	370	319	16.0	27	17	56.6	5	3	84.2	685	583	17.5

Race—Con. Other race Number (in thousands) 1990[1]	Race—Con. Other race Number (in thousands) 1980	Race—Con. Other race 1980 to 1990 percent change	Hispanic origin (of any race) Number (in thousands) 1990[1]	Hispanic origin (of any race) Number (in thousands) 1980	Hispanic origin (of any race) 1980 to 1990 percent change	White, not of Hispanic origin Number (in thousands) 1990[1]	White, not of Hispanic origin Number (in thousands) 1980	White, not of Hispanic origin 1980 to 1990 percent change	Percent of all persons, 1990 All persons	Race White	Race Black	Race American Indian, Eskimo, or Aleut	Race Asian or Pacific Islander	Race Other race	Hispanic Origin (of any race)	White, not of Hispanic origin	United States Regions and Divisions States
9 805	6 758	45.1	22 354	14 609	53.0	188 128	180 256	4.4	100.0	80.3	12.1	0.8	2.9	3.9	9.0	75.6	U.S.
																	REG. & DIV.
1 667	1 322	26.1	3 754	2 604	44.2	40 367	40 996	-1.5	100.0	82.8	11.0	0.2	2.6	3.3	7.4	79.4	Ntheast
282	186	51.8	568	299	90.0	11 766	11 429	2.9	100.0	91.1	4.8	0.2	1.8	2.1	4.3	89.1	N.E.
1 385	1 136	21.9	3 186	2 305	38.2	28 601	29 566	-3.3	100.0	79.9	13.3	0.2	2.9	3.7	8.5	76.1	M.A.
829	695	19.2	1 727	1 277	35.2	51 175	51 510	-0.7	100.0	87.2	9.6	0.6	1.3	1.4	2.9	85.8	Mdwest
705	574	22.7	1 438	1 068	34.6	35 075	35 584	-1.4	100.0	85.1	11.5	0.4	1.4	1.7	3.4	83.5	E.N.C.
124	121	2.4	289	209	38.4	16 101	15 926	1.1	100.0	92.0	5.1	1.1	1.1	0.7	1.6	91.2	W.N.C.
2 350	1 522	54.4	6 767	4 474	51.3	61 359	56 028	9.5	100.0	76.8	18.5	0.7	1.3	2.8	7.9	71.8	South
449	268	67.3	2 133	1 194	78.6	31 821	27 755	14.7	100.0	76.6	20.5	0.4	1.4	1.0	4.9	73.0	S.A.
25	32	-20.6	95	120	-20.3	11 990	11 631	3.1	100.0	79.4	19.6	0.3	0.6	0.2	0.6	79.0	E.S.C.
1 876	1 222	53.5	4 539	3 160	43.6	17 548	16 643	5.4	100.0	75.4	14.7	1.3	1.5	7.0	17.0	65.7	W.S.C.
4 960	3 219	54.1	10 106	6 254	61.6	35 227	31 722	11.0	100.0	75.8	5.4	1.8	7.7	9.4	19.1	66.7	West
826	680	21.4	1 992	1 443	38.0	10 642	9 172	16.0	100.0	86.1	2.7	3.5	1.6	6.0	14.6	77.9	Mt.
4 134	2 539	62.8	8 114	4 811	68.7	24 585	22 550	9.0	100.0	72.2	6.3	1.2	9.8	10.6	20.7	62.8	Pac.
																	STATES
282	186	51.8	568	299	90.0	11 766	11 429	2.9	100.0	91.1	4.8	0.2	1.8	2.1	4.3	89.1	N.E.
2	5	-62.4	7	5	36.4	1 203	1 106	8.8	100.0	98.4	0.4	0.5	0.5	0.1	0.6	98.0	ME
3	2	40.4	11	6	102.8	1 079	906	19.2	100.0	98.0	0.6	0.2	0.8	0.3	1.0	97.3	NH
1	1	-35.2	4	3	10.8	552	504	9.6	100.0	98.6	0.3	0.3	0.6	0.1	0.7	98.1	VT
155	96	62.3	288	141	103.9	5 280	5 294	-0.3	100.0	89.8	5.0	0.2	2.4	2.6	4.8	87.8	MA
25	15	69.2	46	20	132.2	896	885	1.3	100.0	91.4	3.9	0.4	1.8	2.5	4.6	89.3	RI
96	67	43.0	213	124	71.2	2 754	2 735	0.7	100.0	87.0	8.3	0.2	1.5	2.9	6.5	83.8	CT
1 385	1 136	21.9	3 186	2 305	38.2	28 601	29 566	-3.3	100.0	79.9	13.3	0.2	2.9	3.7	8.5	76.1	M.A.
990	845	17.1	2 214	1 659	33.4	12 460	13 165	-5.4	100.0	74.4	15.9	0.3	3.9	5.5	12.3	69.3	NY
275	200	37.7	740	492	50.4	5 719	5 826	-1.8	100.0	79.3	13.4	0.2	3.5	3.6	9.6	74.0	NJ
119	91	31.4	232	154	50.9	10 422	10 576	-1.5	100.0	88.5	9.2	0.1	1.2	1.0	2.0	87.7	PA
705	574	22.7	1 438	1 068	34.6	35 075	35 584	-1.4	100.0	85.1	11.5	0.4	1.4	1.7	3.4	83.5	E.N.C.
59	63	-6.9	140	120	16.5	9 445	9 528	-0.9	100.0	87.8	10.6	0.2	0.8	0.5	1.3	67.1	OH
41	43	-3.8	99	87	13.5	4 965	4 954	0.2	100.0	90.6	7.8	0.2	0.7	0.7	1.8	89.6	IN
476	342	39.3	904	636	42.3	8 550	8 912	-4.1	100.0	78.3	14.8	0.2	2.5	4.2	7.9	74.8	IL
87	94	-7.5	202	162	24.1	7 650	7 786	-1.7	100.0	83.4	13.9	0.6	1.1	0.9	2.2	82.3	MI
42	32	28.5	93	63	48.0	4 465	4 406	1.3	100.0	92.2	5.0	0.8	1.1	0.9	1.9	91.3	WI
124	121	2.4	289	209	38.4	16 101	15 926	1.1	100.0	92.0	5.1	1.1	1.1	0.7	1.6	91.2	W.N.C.
22	25	-13.2	54	32	67.7	4 101	3 917	4.7	100.0	94.4	2.2	1.1	1.8	0.5	1.2	93.7	MN
13	16	-19.6	33	26	27.8	2 664	2 823	-5.6	100.0	96.6	1.7	0.3	0.9	0.5	1.2	95.9	IA
22	21	0.2	62	52	19.5	4 448	4 312	3.2	100.0	87.7	10.7	0.4	0.8	0.4	1.2	86.9	MO
2	2	-28.5	5	4	19.6	602	623	-3.5	100.0	94.6	0.6	4.1	0.5	0.3	0.7	94.2	ND
2	2	-31.8	5	4	30.5	635	638	-0.4	100.0	91.6	0.5	7.3	0.4	0.2	0.8	91.2	SD
16	15	4.9	37	28	31.9	1 460	1 475	-1.0	100.0	93.8	3.6	0.8	0.8	1.0	2.3	92.5	NE
49	39	25.5	94	63	47.9	2 191	2 139	2.4	100.0	90.1	5.8	0.9	1.3	2.0	3.8	88.4	KS
449	268	67.3	2 133	1 194	78.6	31 821	27 755	14.7	100.0	76.6	20.5	0.4	1.4	1.0	4.9	73.0	S.A.
8	5	44.0	16	10	63.8	528	483	9.3	100.0	80.3	16.9	0.3	1.4	1.1	2.4	79.3	DE
45	28	62.2	125	65	93.2	3 326	3 116	6.7	100.0	71.0	24.9	0.3	2.9	0.9	2.6	69.6	MD
15	10	49.6	33	18	85.0	166	164	1.1	100.0	29.6	65.8	0.2	1.8	2.5	5.4	27.4	DC
58	33	78.3	160	80	100.7	4 702	4 179	12.5	100.0	77.4	18.8	0.2	2.6	0.9	2.6	76.0	VA
2	3	-42.7	8	13	-33.2	1 719	1 864	-7.8	100.0	96.2	3.1	0.1	0.4	0.1	0.5	95.8	WV
32	20	60.9	77	57	35.4	4 971	4 429	12.3	100.0	75.6	22.0	1.2	0.8	0.5	1.2	75.0	NC
9	8	10.0	31	33	-8.6	2 390	2 132	12.1	100.0	69.0	29.8	0.2	0.6	0.3	0.9	68.5	SC
42	19	126.4	109	61	77.8	4 543	3 914	16.1	100.0	71.0	27.0	0.2	1.2	0.7	1.7	70.1	GA
238	143	66.6	1 574	858	83.4	9 475	7 473	26.8	100.0	83.1	13.6	0.3	1.2	1.8	12.2	73.2	FL
25	32	-20.6	95	120	-20.3	11 990	11 631	3.1	100.0	79.4	19.6	0.3	0.6	0.2	0.6	79.0	E.S.C.
7	9	-19.9	22	27	-19.8	3 378	3 358	0.6	100.0	92.0	7.1	0.2	0.5	0.2	0.6	91.7	KY
9	11	-13.7	33	34	-3.9	4 028	3 813	5.6	100.0	83.0	16.0	0.2	0.7	0.2	0.7	82.6	TN
6	8	-24.1	25	33	-26.0	2 960	2 856	3.7	100.0	73.6	25.3	0.4	0.5	0.1	0.6	73.3	AL
3	5	-32.1	16	25	-35.6	1 624	1 604	1.2	100.0	63.5	35.6	0.3	0.5	0.1	0.6	63.1	MS
1 876	1 222	53.5	4 539	3 160	43.6	17 548	16 643	5.4	100.0	75.4	14.7	1.3	1.5	7.0	17.0	65.7	W.S.C.
7	6	9.5	20	18	11.0	1 933	1 880	2.8	100.0	82.7	15.9	0.5	0.5	0.3	0.8	82.2	AR
22	20	11.6	93	99	-6.1	2 776	2 841	-2.3	100.0	67.3	30.8	0.4	1.0	0.5	2.2	65.8	LA
42	36	17.2	86	57	50.1	2 548	2 571	-0.9	100.0	82.1	7.4	8.0	1.1	1.3	2.7	81.0	OK
1 805	1 160	55.6	4 340	2 986	45.4	10 292	9 350	10.1	100.0	75.2	11.9	0.4	1.9	10.6	25.5	60.6	TX
826	680	21.4	1 992	1 443	38.0	10 642	9 172	16.0	100.0	86.1	2.7	3.5	1.6	6.0	14.6	77.9	Mt.
4	5	-27.1	12	10	22.1	734	734	-0.1	100.0	92.7	0.3	6.0	0.5	0.5	1.5	91.8	MT
30	23	28.9	53	37	44.6	929	886	4.8	100.0	94.4	0.3	1.4	0.9	3.0	5.3	92.2	ID
11	11	-0.1	26	24	5.1	413	432	-4.5	100.0	94.2	0.8	2.1	0.6	2.3	5.7	91.0	WY
168	169	-0.4	424	340	24.9	2 659	2 390	11.2	100.0	89.2	4.0	0.8	1.8	5.1	12.9	80.7	CO
190	188	1.1	579	477	21.4	764	686	11.4	100.0	75.6	2.0	8.9	0.9	12.6	38.2	50.4	NM
333	228	46.2	688	441	56.2	2 626	2 026	29.6	100.0	80.8	3.0	5.6	1.5	9.1	18.8	71.7	AZ
38	35	8.1	85	60	40.3	1 571	1 350	16.3	100.0	93.8	0.7	1.4	1.9	2.2	4.9	91.2	UT
53	22	142.7	124	54	130.9	946	666	42.0	100.0	84.3	6.6	1.6	3.2	4.4	10.4	78.7	NV
4 134	2 539	62.8	8 114	4 811	68.7	24 585	22 550	9.0	100.0	72.2	6.3	1.2	9.8	10.6	20.7	62.8	Pac.
116	84	37.4	215	120	78.8	4 222	3 726	13.3	100.0	88.5	3.1	1.7	4.3	2.4	4.4	86.7	WA
52	43	19.0	113	66	71.2	2 580	2 456	5.0	100.0	92.8	1.6	1.4	2.4	1.8	4.0	90.8	OR
3 939	2 363	66.7	7 698	4 544	69.2	17 029	15 764	8.0	100.0	69.0	7.4	0.8	9.6	13.2	25.8	57.2	CA
7	6	5.6	18	10	87.3	407	305	33.5	100.0	75.5	4.1	15.6	3.6	1.2	3.2	73.9	AK
21	43	-50.4	81	71	14.2	348	300	16.0	100.0	33.4	2.5	0.5	61.8	1.9	7.3	31.4	HI

[1]The 1990 population counts set forth herein are subject to possible correction for undercount or overcount. The United States Department of Commerce is considering whether to correct these counts and will publish corrected counts, if any, not later than July 15, 1991.

The American Indian, Eskimo, or Aleut Population of States

The American Indian, Eskimo, or Aleut population exceeded 100,000 in four States in 1990.

Oklahoma had the largest American Indian, Eskimo, or Aleut population in 1990 (252,000), followed by California, Arizona, and New Mexico (figure 7). Seven States had American Indian, Eskimo, or Aleut populations between 50,000 and 100,000: the last six States shown in figure 7 and South Dakota with 51,000. (The term American Indian is used also in this report to include Eskimo and Aleut.)[3]

With the exception of New York replacing South Dakota, the 10 States with the largest American Indian populations in 1990 were the same as in 1980. Oklahoma rose to first, exchanging ranks with California, and North Carolina fell from fifth to seventh as Alaska and Washington moved up in rank to fifth and sixth, respectively.

The American Indian population is more concentrated than the total population. A majority lived in 6 States in 1990 compared to 9 States for the total population. Sixty-five percent of the American Indian population resided in the 10 States with the largest American Indian populations compared to 54 percent of the total population in the 10 most populous States.

The largest increase in American Indian population in the 1980-90 decade was in Oklahoma (83,000), followed by Arizona and California (figure 8). Oklahoma accounted for 15 percent of the American Indian population growth in the United States during the decade while the 10 States with the largest American Indian growth together accounted for 61 percent of the national increase.

The American Indian, Eskimo, or Aleut percentage is highest in Alaska.

American Indians, Eskimos, and Aleuts represented 15.6 percent of Alaska's population in 1990, down slightly from 16.0 percent in 1980. There were five other States in which this group represented at least 5 percent of the total population in 1990 (figure 9): New Mexico (8.9 percent, up from 8.1 percent in 1980), Oklahoma (8.0, up from 5.6), South Dakota (7.3, up from

[3]Nationally, Eskimos (57,000) and Aleuts (24,000) together represented 4.1 percent of the combined American Indian, Eskimo, or Aleut population in 1990. Eskimos and Aleuts together represented less than 8 percent of the combined population in all States except Alaska where the combined population included 31,000 American Indians, 44,000 Eskimos, and 10,000 Aleuts.

6.5), Montana (6.0, up from 4.7), and Arizona (5.6, unchanged from 1980). There were 35 States in which American Indians represented less than 1 percent of the population in 1990.

437,000 American Indians lived on reservations (and associated trust lands) in 1990.

Of American Indians living on the 314 reservations in 1990, 388,000 lived on the 78 reservations with 1,000 or more American Indians. The Navajo Reservation and Trust Lands was by far the largest of these.

Ten Largest American Indian Reservations: 1990
(American Indian population in thousands)

Navajo, AZ–NM–UT*	143.4
Pine Ridge, NE–SD*	11.2
Fort Apache, AZ	9.8
Gila River, AZ	9.1
Papago, AZ	8.5
Rosebud, SD*	8.0
San Carlos, AZ	7.1
Zuni Pueblo, AZ–NM	7.1
Hopi, AZ*	7.1
Blackfeet, MT	7.0

*Includes trust lands.

Figure 7.
Ten States With the Largest American Indian, Eskimo, or Aleut Population: 1990
(In thousands. Rank in 1980 in parentheses)

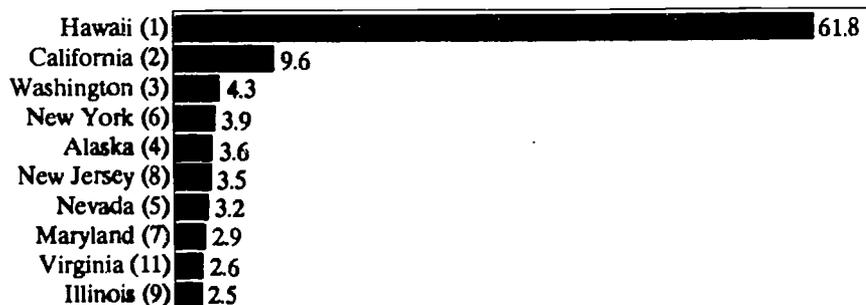|	
Oklahoma (2)	252
California (1)	242
Arizona (3)	204
New Mexico (4)	134
Alaska (6)	86
Washington (7)	81
North Carolina (5)	80
Texas (9)	66
New York (11)	63
Michigan (10)	56
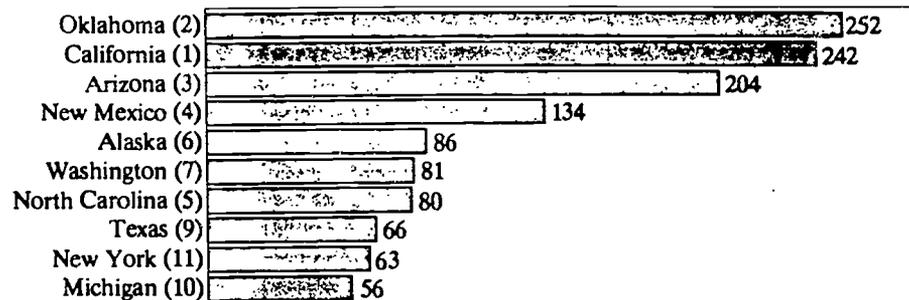
Scales are not comparable in corresponding figures on pp. 3, 6, 7, and 8.

Figure 8.
Ten States With the Largest Increases in American Indian, Eskimo, or Aleut Population: 1980 to 1990
(In thousands)

Oklahoma	83
Arizona	51
California	41
New Mexico	28
Texas	26
New York	23
Alaska	22
Washington	21
Florida	17
Michigan	16
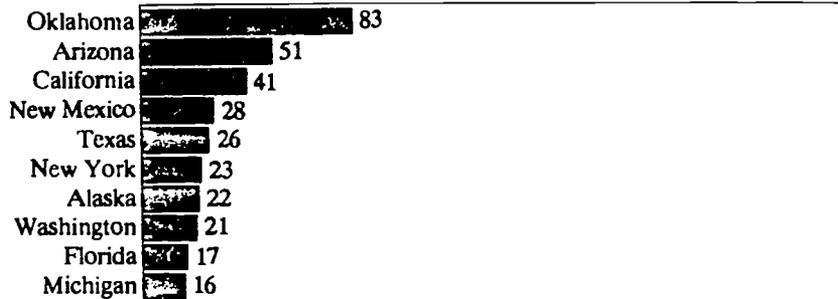
Scales are not comparable in corresponding figures on pp. 3, 6, 7, and 8.

Figure 9.
Ten States With the Highest Percentage American Indian, Eskimo, or Aleut: 1990
(Rank in 1980 in parentheses)

Alaska (1)	15.6
New Mexico (2)	8.9
Oklahoma (5)	8.0
South Dakota (3)	7.3
Montana (6)	6.0
Arizona (4)	5.6
North Dakota (7)	4.1
Wyoming (9)	2.1
Washington (10)	1.7
Nevada (8)	1.6
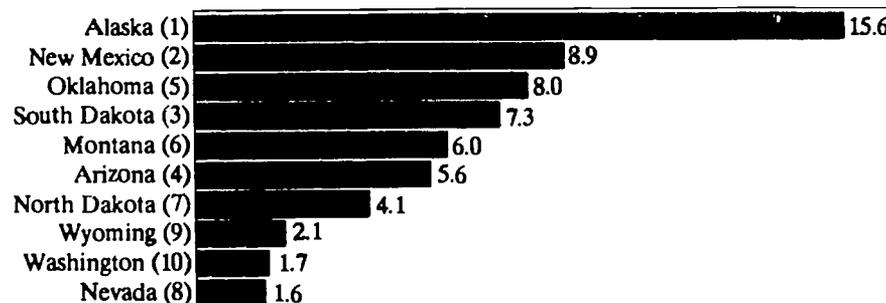
Scales are not comparable in corresponding figures on pp. 3, 6, 7, and 8.

The Asian or Pacific Islander Population of States

The Asian or Pacific Islander population grew rapidly in nearly all States in the 1980's.

Reflecting the national doubling of the Asian or Pacific Islander (API) population in the 1980–90 decade, as discussed earlier, the API population increased by at least 40 percent in all States except Hawaii. In Hawaii, where the API population is a majority, the API growth rate was only 17 percent.

California's API population r .s. 127 percent from 1,254,000 in 1980 to 2,846,000 in 1990. This exceeded the national API growth rate of 108 percent. California's API population in 1990 was larger than the total population of 22 States.

Two other States had API populations of 500,000 or more in 1990: New York and Hawaii (figure 10). Thirteen States had API populations of 100,000 or more in 1990, up from seven in 1980. There were 2 changes in the 10 States with the largest API populations. Florida rose from 12th to 9th, and Massachusetts rose from 13th to 10th. Maryland fell from 10th to 11th, and Pennsylvania fell from 9th to 12th, despite increases of over 100 percent in their API populations. New York rose from third to second, exchanging ranks with Hawaii, and Texas rose from fifth to fourth, exchanging places with Illinois.

The API population is much more concentrated than the total population. A majority of the API population lived in just 3 States (California, New York, and Hawaii) in 1990 compared to 9 States for the total population. Seventy-nine percent of the API population resided in the 10 States with the largest API populations compared to 54 percent of the total population in the 10 most populous States.

The largest increase in API population in the 1980–90 decade was in California (1,592,000), followed by New York and Texas (figure 11). California alone accounted for 42 percent of API population growth in the United States during the decade while the 10 States with the largest API growth together accounted for 79 percent of the national increase.

Among the 7 States with API populations of 100,000 or more in 1980, 5 had API growth rates exceeding 100 percent in the 1980–90 decade (pp. 4–5), led by Texas (166 percent) and New Jersey (162 percent). Among the 10 States with API populations of 25,000 up to 100,000 in 1980, the highest growth rates were in Minnesota (194 percent) and Massachusetts (190 percent). In 3 States with API populations under 25,000 in 1980, the API population more than tripled during the decade: Rhode Island, New Hampshire, and Georgia.

Asians and Pacific Islanders are three-fifths of Hawaii's population.

The API population represented 61.8 percent of Hawaii's population in 1990, up slightly from 60.5 percent in 1980. Despite sharp increases in the API percentages in other States, Hawaii was the only State with an API percentage exceeding 10 percent in 1990.

There were six other States in which the API population represented at least 3 percent of total population in 1990 (figure 12): California (9.6 percent, up from 5.3 percent in 1980), Washington (4.3, up from 2.5), New York (3.9, up from 1.8), Alaska (3.6, up from 2.0), New Jersey (3.5, up from 1.4), and Nevada (3.2, up from 1.8). The number of States in which the API population represented less than 1 percent of the population dropped from 37 in 1980 to 22 in 1990.

Figure 10.
Ten States With the Largest Asian or Pacific Islander Population: 1990
(In thousands. Rank in 1980 in parentheses)

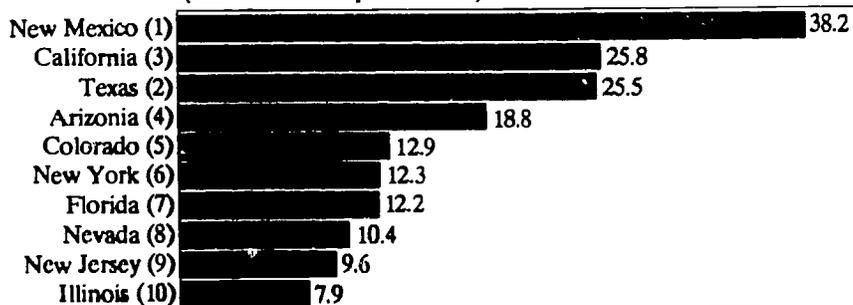| State	Value
California (1)	2,846
New York (3)	694
Hawaii (2)	685
Texas (5)	319
Illinois (4)	285
New Jersey (6)	273
Washington (7)	211
Virginia (8)	159
Florida (12)	154
Massachusetts (13)	143
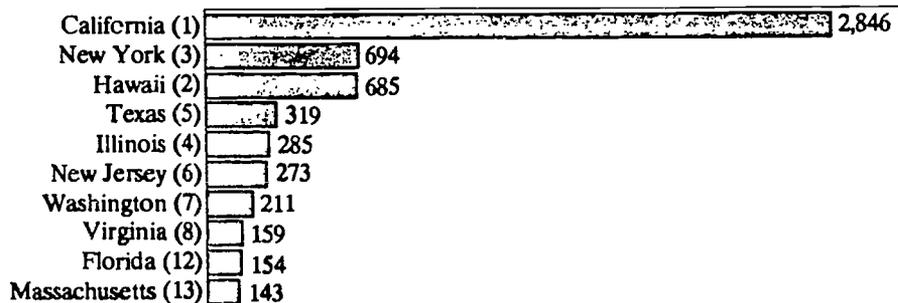
Scales are not comparable in corresponding figures on pp. 3, 6, 7, and 8.

Figure 11.
Ten States With the Largest Increases in Asian or Pacific Islander Population: 1980 to 1990
(In thousands)

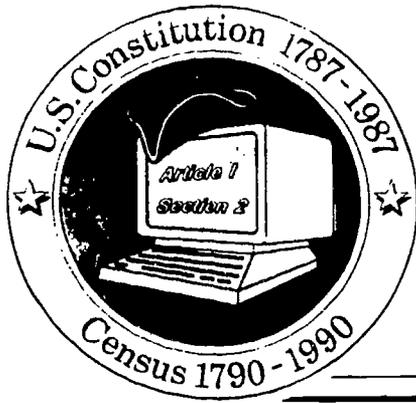| State	Value
California	1,592
New York	383
Texas	199
New Jersey	169
Illinois	126
Washington	108
Hawaii	102
Florida	98
Massachusetts	94
Virginia	93
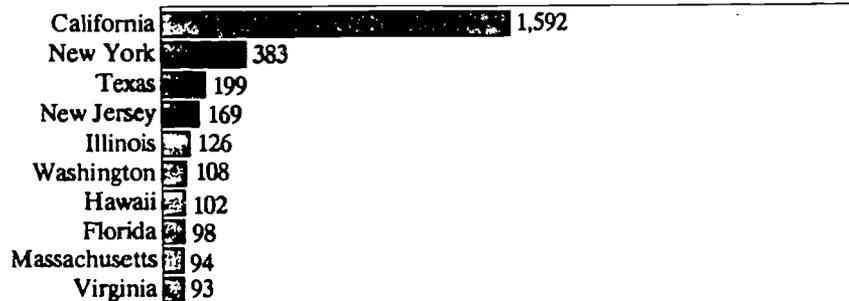
Scales are not comparable in corresponding figures on pp. 3, 6, 7, and 8.

Figure 12.
Ten States With the Highest Percentage Asian or Pacific Islander: 1990
(Rank in 1980 in parentheses)

State	Value
Hawaii (1)	61.8
California (2)	9.6
Washington (3)	4.3
New York (6)	3.9
Alaska (4)	3.6
New Jersey (8)	3.5
Nevada (5)	3.2
Maryland (7)	2.9
Virginia (11)	2.6
Illinois (9)	2.5

Scales are not comparable in corresponding figures on pp. 3, 6, 7, and 8.

The Hispanic Origin Population of States

The Hispanic origin population of California was 7.7 million in 1990.

California's Hispanic population increased sharply from 4,544,000 in 1980 to 7,688,000 in 1990, or by 69 percent. This exceeded the national Hispanic growth rate of 53 percent. California's Hispanic population in 1990 was larger than the total population of all but nine States.

Three other States had Hispanic populations of 1 million or more in 1990: Texas, New York, and Florida (figure 13). The Hispanic growth rate in the 1980-90 decade was much higher in Florida (83 percent) than in Texas (45 percent) or New York (33 percent).

With the exception of Massachusetts, which replaced Michigan as the 10th State, the 10 States with the largest Hispanic populations in 1990 were the same as in 1980. Arizona rose from eighth to seventh largest, exchanging ranks with New Mexico.

The Hispanic origin population is much more concentrated than the total population. A majority of the Hispanic population lived in just 2 States (California and Texas) in 1990 compared to 9 States for the total population. Eighty-seven percent of the Hispanic origin population resided in the 10 States with the largest Hispanic populations compared to 54 percent of the total population in the 10 most populous States.

The largest increase in Hispanic origin population in the 1980-90 decade was in California (3,144,000), followed by Texas and Florida (figure 14). California alone accounted for 41 percent of Hispanic population growth in the United States during the decade while the 10 States with the largest Hispanic growth together accounted for 89 percent of the increase.

Among the 15 States with Hispanic origin populations of 100,000 or more in 1980, the highest Hispanic growth rates in the 1980-90 decade were in Massachusetts (104 percent), Florida (83 percent), and Washington (79 percent) (pp. 4-5).

The highest Hispanic percentages are in five Southwestern States.

Five contiguous Southwestern States (Texas, New Mexico, Colorado, Arizona, and California) had the highest Hispanic percentages among the States in 1990, ranging from 38.2 percent in New Mexico to 12.9 percent in Colorado (figure 15). These five States also had the highest Hispanic percentages in 1980, although California rose from third to second, exchanging ranks with Texas. Texas' Hispanic percentage rose sharply, from 21.0 percent to 25.5 percent; however, California's Hispanic percentage rose even more rapidly, from 19.2 percent to 25.8 percent.

Outside the five Southwestern States, four States had Hispanic percentages in 1990 above the national figure of 9.0 percent: New York, Florida, Nevada, and New Jersey. There were 11 States in which Hispanics represented less than 1 percent of the population in 1990.

Source of the Data

Most of the 1980 and 1990 census data included here were published in Bureau of the Census press release CB 91-100 (March 11, 1991). All the data for 1990 are on computer tapes of 1990 Public Law (P.L.) 94-171 Data. For 1980, the source is 1980 Census of Population, General Population Characteristics, United States Summary (PC80-1-B1), issued 1983. Data for earlier years are from final reports of those censuses of population.

For information about the publication program for the 1990 Census of Population and Housing and the wide range of data products issued by the Census Bureau, contact Customer Services, U.S. Bureau of the Census, Washington, DC 20233 (301-763-4100).

Figure 13.
Ten States With the Largest Hispanic Origin Population: 1990
(In thousands. Rank in 1980 in parentheses)

State	Value
California (1)	7,688
Texas (2)	4,340
New York (3)	2,214
Florida (4)	1,574
Illinois (5)	904
New Jersey (6)	740
Arizona (8)	688
New Mexico (7)	579
Colorado (9)	424
Massachusetts (12)	288
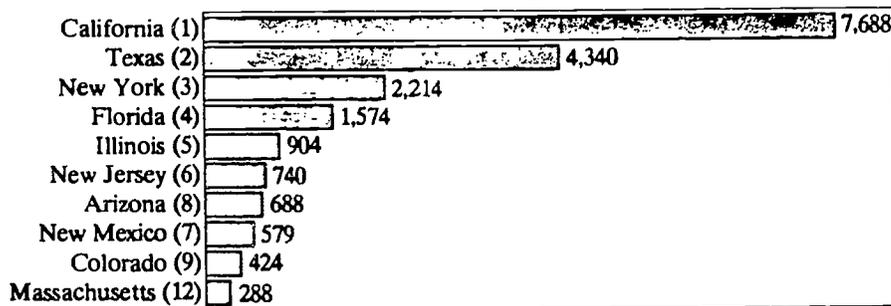
Scales are not comparable in corresponding figures on pp. 3, 6, 7, and 8.

Figure 14.
Ten States With the Largest Increases in Hispanic Origin Population: 1980 to 1990
(In thousands)

State	Value
California	3,144
Texas	1,354
Florida	716
New York	555
Illinois	269
New Jersey	248
Arizona	248
Massachusetts	147
New Mexico	102
Washington	95
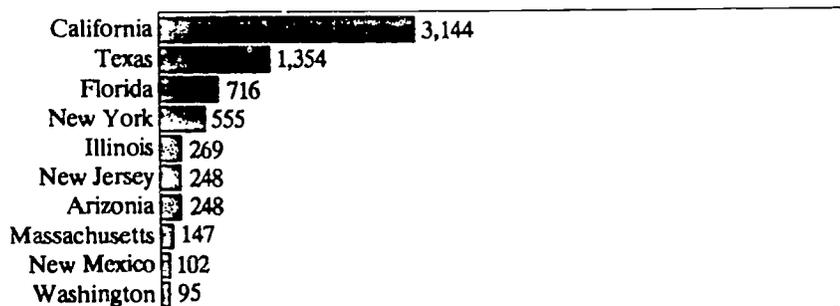
Scales are not comparable in corresponding figures on pp. 3, 6, 7, and 8.

Figure 15.
Ten States With the Highest Percentage Hispanic: 1990
(Rank in 1980 in parentheses)

State	Percent
New Mexico (1)	38.2
California (3)	25.8
Texas (2)	25.5
Arizona (4)	18.8
Colorado (5)	12.9
New York (6)	12.3
Florida (7)	12.2
Nevada (8)	10.4
New Jersey (9)	9.6
Illinois (10)	7.9

Scales are not comparable in corresponding figures on pp. 3, 6, 7, and 8.

Counting for Representation: The Census and the Constitution

People counting people

Counting people is an old American practice dating from colonial days. The need for a census of the new United States arose soon after the 13 Colonies broke their ties with Great Britain. The Revolutionary War (1775-83) costs had been high, and the new Nation had to find ways to pay the debt; one way was to divide it equally among the people. Another reason for a census was to establish a truly representative government to sit in the two Houses of Congress. While each State, regardless of size, would have two Senators in the Senate, Members of the House of Representatives would be apportioned—divided up—among the States according to their population. The only way to find out how many people there were was to count them, so for the first time in history, a nation decided to make a census part of its constitution. As adopted in 1787, the U.S. Constitution included these words in Article I, Section 2:

> Representatives and direct Taxes shall be apportioned among the several States which may be included within this Union, according to their respective Numbers.... The actual Enumeration shall be made within three Years after the first Meeting of the Congress of the United States, and within every subsequent Term of ten Years, in such Manner as they shall by Law direct.

When they wrote the Constitution, the Founding Fathers tried to find a proper balance in the way the country was to be run. By counting people for both taxes and representation at the same time, they believed the census would be both accurate and fair. Had the census been only for tax purposes, the count probably would have been too low; if only for representation, each State would want as many Members in the House as possible and might report more people than it actually had. Counting for taxation, nevertheless, never did follow from the constitutional directive. On the other hand, the constitutional order--to apportion (or reapportion) representatives fairly among the

States by a count of the population at least every 10 years—has been followed since 1790 and is the origin of today's decennial census. Based on the 1790 census, the original number of 65 House Members grew to 106, who represented a population of almost 4 million. When the House reached its present size of 435 in 1911, it represented 92 million people—the number from the census taken in 1910. The 1980 census counted over 226 million people for the same size House.

Ever since 1913, the Congress has delegated the authority to conduct the census to the Secretary of Commerce, and has permitted the Secretary to further delegate this authority to the Bureau of the Census. The Secretary must report counts for each State to the President within 9 months from Census Day (for most of this century, this has been April 1) of the year ending in "0." Within one week of the opening of the next session of the Congress, the President must send to the Clerk of the House of Representatives the census count for each State and the number of Representatives to which each State is entitled, following the method of apportionment Congress chose. Within 15 days, the Clerk of the House then notifies the Governor of each State how many Representatives that State will be entitled to in the next Congress.
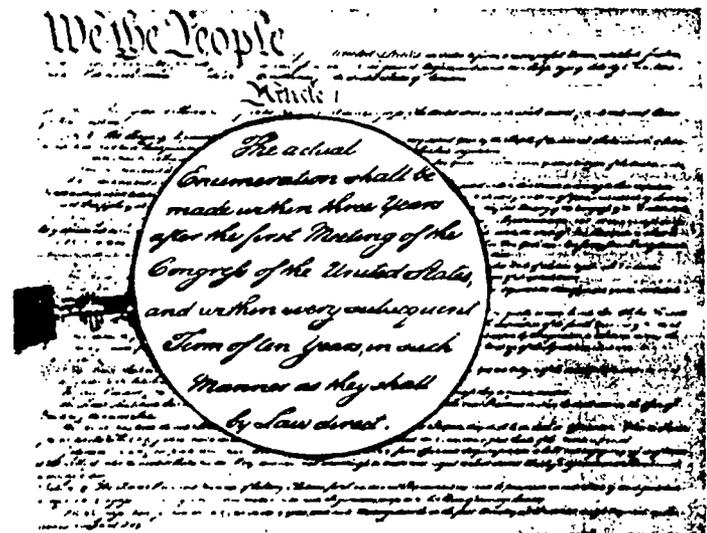
U. S. Department of Commerce
BUREAU OF THE CENSUS

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Who should be counted?

Originally, Article I, Section 2 based apportionment on "the whole Number of free Persons, including those bound to Service for a Term of Years, and excluding Indians not taxed, three-fifths of all other Persons [Editor's note: slaves]." The practice of "Service for a Term of Years" soon died out. All American Indians have been considered to be taxed since the 1940's, and the Civil War of 1861-65 ended slavery and the three-fifths rule. The Constitution (Amendment 14) now refers to the "whole number" of persons, which the Census Bureau has taken to mean that all those persons who are residents of the United States should be included. Who are the exceptions and what are the special situations? Here are the Bureau of the Census's rules about them:

Two groups of people are specifically excluded from the census count. Persons living on the grounds of an embassy, ministry, legation, chancellery, or consulate are considered to be living on foreign soil, and therefore not residents of the United States. Also, citizens of foreign countries temporarily visiting or traveling in the United States are not counted in the census because they have not established a residence. On the other hand, Americans who are temporarily abroad on vacations, business trips, and the like are counted at their usual residence in the United States. Those Americans, however, who are overseas for an extended period (in the Armed Forces, working at civilian jobs, studying in foreign universities, etc.) generally are not included, because they are considered to have a "usual residence" outside of the United States.

Should undocumented or illegal aliens be included in the count for apportionment?

Congress debated this question on a number of occasions. The results support the statement of James Madison that the apportionment is to be "founded on the aggregate number of inhabitants" of each State. To the Census Bureau, that means all people here as residents, whether or not they are citizens or even not legally admitted as immigrants. .: the 1970's, it became apparent that large numbers of persons were illegally entering the United States. Believing that these numbers might affect the apportionment of the U.S. Congress, the Federation for American Immigration Reform (FAIR) brought suit in 1979 to make the Census Bureau keep illegal aliens out of the apportionment count. The suit was decided in favor of the Census Bureau. but on procedural grounds. Even so, the United States District Court did address the real issue of whether or not illegal aliens should be included in the census. The court noted that "the Constitution requires the counting of the whole number of persons" and that illegal aliens "are

clearly persons." How many undocumented aliens were counted in the census? Although the census does not ask anyone whether he or she has the proper papers to be in this country, a reasonable estimate of these persons included in the 1980 census is about 2 million, or less than 1 percent of the U.S. population.

Where should people be counted?

As important as who should be included in the count is the question of where the counted persons should be listed as living. The basic rule laid down in the first census act of March 1, 1790 states:

...every person whose usual place of abode shall be in any family...shall be returned as of such family; and the name of every person, who shall be an inhabitant of any district. but without a settled place of residence, shall be inserted...in that division where he or she shall be..., and every person occasionally absent at the time of the enumeration, as belonging to that place in which he usually resides in the United States.

From that act came the term "usual residence" and the idea of counting persons where they live and sleep most of the time. That place is not necessarily the same as the person's legal residence, voting residence, or the place where he or she can be found on Census Day. There are rules to determine where a person should be counted for certain groups of people, among them members of the Armed Forces (counted as residents of the area where they are stationed), college students (counted where they are living while at college, either in a

dormitory or in local housing), and persons in institutions (at the institution if long-term, or at home, generally, if short-term).

But what is the Census Bureau's role--officially?

An agency in the Department of Commerce, the Bureau of the Census conducts the census of population and housing in years ending in "0." Title 13 of the United States Code authorizes the census, outlines its timing and scope (and the scope of other Bureau censuses and surveys), requires the public to answer the questions and makes all the information confidential, and sets the penalties for disclosing this information.

The role of the Bureau of the Census in the apportionment process has two parts:

- To carry out the census itself—counting the Nation's people and recording information about them. such as age, race, and so on.

- To unofficially calculate the apportionment by determining the number of Representatives for each State based upon the results of that census.

How is apportionment calculated?

Three factors are needed to calculate apportionment:

- the population base

- the size of the body (the House of Representatives) to be divided

- a method to use for the calculation

The first two are fairly straightforward. The census obtains a count for each of the 50 States in accordance with the enumeration and residence rules discussed above. and the Congress determines the current size of the House of Representatives. From 1800 to 1840. the number of seats in the House increased as the population grew and new States were admitted to the Union. In 1850, for the first time, the number of seats was fixed before apportionment. The current House size. 435 members. has not been changed since the apportionment following the 1910 census. except for a temporary increase when Alaska and Hawaii became States in 1959.

How does one choose a method to calculate apportionment?

You might think, it's easy—once you know the number of people in the country and in a State and the number of representatives in the House. Don't you just divide the number in the country by the number in the State and give each of the 50 States that same share of the votes in the House? But what if there's a fraction left over? Can any State send a third of an elected official to Congress?

Generally, the assignment of seats for whole shares is not a problem, no matter what method is used; the assignment of seats for fractional shares is the issue that presents the problem. The apportionment procedure affects only the assignment of the 51st and successive seats, since the Constitution provides that each State must have at least one representative.

Finding a method that would solve the fraction problem adequately was a concern of Congress from 1792 until the early 1900's, during which time mathematicians, statisticians, and politicians came up with different ways (that had their own problems), some of which were never used. (See fig 1.)

The 1792 Apportionment Act was known as the Jefferson plan, named for Thomas Jefferson, then Secretary of State in President George Washington's

Thomas Jefferson; Courtesy Library of Congress

cabinet. This plan gave one Representative for every 33,000 people in each State, the fractions—or remainders—being disregarded. Essentially the same method was used after each of the next four censuses, but with progressively larger numbers to deal with.

In 1840, a change in the method of apportionment resulted from lengthy Senate debates on reapportionment in 1832 led by Daniel Webster of Massachusetts. He maintained that Jefferson's method was unconstitutional because it discriminated against small States by disregarding the fractions. Webster's position was that the Constitution required Congress to apportion Representatives "as near as may be" to the population of each State. Therefore, an additional Member was awarded for a fraction of over one-half. This practice, as Jefferson's had, also resulted in a House of Representatives of varying size, depending upon the ratio chosen and the population of each State. In the Nation's early years, increasing the size of the House of Representatives after each census was not a problem. As new States joined the union, and as the population of existing States grew, more members were added as needed, but it became apparent that continued growth in the size of the House would begin to strain its workings.

Samuel F. Vinton, a Representative from Ohio during the middle 1800's, was responsible for the method used in 1850. It seemed to be the answer to the problem of reapportionment because it appeared to be the fairest way to distribute a fixed number of seats. The Vinton method worked this way in 1850: A House size of 233 was selected.

The total population was divided by 233 to determine the number by which each State's population would be divided. The resulting "quotas"—each State's exact share in the House—were used to assign the 233 seats. First, each State received the whole number of the quota. The remaining seats needed to make 233 were allocated by giving the States with the largest fractions each a seat until all 233 seats were assigned.

Vinton's method served for several decades. After the census of 1880, however, people noticed that if the size of the House increased from its then current size of 293 to 299, Alabama would not change from its 8-member delegation. But if the House size were to be fixed instead at 300, Alabama would actually lose a member and have only 7. Fortunately for Alabama, the size of the House was set at 332, and Alabama maintained an 8-member delegation. This troublesome characteristic of the Vinton method was named the "Alabama Paradox" (under which a State would be entitled to fewer seats if the size of the House were increased and the population of all States remained constant).

In 1910, Congress adopted a more refined and complex version of the Vinton method, known as Major Fractions. Some call this "Webster's method." Major Fractions, which was also used in 1930, is one of several methods that use a priority list to assign representatives to States. (Congress could not decide on an apportionment plan based on the 1920 census, but later passed a bill that made reapportionment automatic even if no action was taken.) The present method of Equal Proportions,

Figure 1. Deciphering the Methods

Five apportionment methods use formulas in which the State's total population (P) is the numerator and the divisor creates a numerical value that determines each State's priority for its next seat. In the divisors below, "n" represents the number of the State's next seat. The different divisors are designed to achieve different tests.

Here is a summary of the divisor methods, the formulas, and their tests.

Method	Divisor	Test
Equal Proportions (current method)	$\sqrt{n(n-1)}$	Smallest percent difference between number of persons per representative and smallest percent difference between number of representatives per person
Major Fractions	$\dfrac{n-1}{2}$	Smallest absolute difference between number of representatives per person
Harmonic Means	$\dfrac{2(n-1)n}{(n-1)+n}$	Smallest absolute difference between number of person per representative
Smallest Divisors	$n-1$	Smallest absolute "representation surplus"
Greatest Divisors	n	Smallest absolute "representation deficiency"

adopted in 1941 (Title 2, Section 2a, United States Code) is another system that uses a priority list. The priority value is calculated by dividing the population of the State by a divisor. (See fig 1.) Each of the priority list methods has a different divisor, designed to reach certain objectives. For example, following the 1980 results, each of the 50 States was awarded one seat out of the current 435 total. Then, the 51st seat went to the State that had the highest priority value for its second seat. In computing the apportionment from the 1980 State totals, seat 51 went to California, whose priority value under the method of Equal Proportions was 16,736,300. The next seat, number 52, went to New York, with a second-seat priority value of 12,414,877, and Texas received seat number 53, with a priority value of 10,060,986. (See fig. 2.)

Once the number of seats assigned to the individual States is determined, the task of drawing the new congressional districts is generally that of each State legislature. This process of redistricting has required much legislative action.

Redistricting

When setting up or changing the boundaries of congressional or legislative districts, there are two ways to control the districts for political purposes—by geography or by population. Almost from the beginning, election districts began to take on all sorts of strange shapes and population sizes to favor some particular group or party, not always in keeping with the Constitution's principle of equal representation.

How do you tinker with geography?

A practice sometimes followed by some State legislatures when redistricting is called gerrymandering, after Elbridge Gerry, the Governor of Massachusetts in 1812, when Essex County's senatorial election districts were drawn to make sure his party's candidate was elected. The map that resulted looked like a salamander. One of Gerry's critics called it a gerrymander and the name stuck. In 1842, Congress required that congressional districts be contiguous (no separate parts), but some States got around this by connecting the parts with strips of land that might or might not contain people; others created long, narrow districts that wound across a State. In 1872, Congress said that districts had to be compact, but this also was interpreted in different ways.

How about population?

In the history of redistricting, if you wanted to discriminate against certain people because of their race, national origin, beliefs, income, or the way they vote, you made sure any such groups either were divided up among several districts, or that they were outnumbered by the people you wanted to favor. This was done even after 1901, when Congress said that districts not only had to be compact but also approximately equal in population. In any case, all of these provisions were dropped in 1929.

Figure 2. Apportionment Mini-Guide

How does the method of Equal Proportions work? California receives the 51st seat because it is the most populous State. Why does California receive the 54th seat (its third) before Pennsylvania receives its second?

The formula is: $\sqrt{\dfrac{P}{n(n-1)}}$

where "P" is the State population and "n" is the number of seats a State would have if it gained a seat. Thus, each State's claim to a seat (the priority value) would be the total State population divided by the geometric means of its current and next seats $(\sqrt{n(n-1)})$

Listed below are the first 10 seats awarded on the basis of the method of equal proportions in 1980. The list continues in this fashion until the 385 seats (numbers 51 through 435) have been allocated. (Each State got one of the first 50 seats.)

Seat	State	1980 population	Seat number	Multiplier*	Priority value
	California	23,668,562	2	0.70710678	16,736,200
	New York	17,557,288	2	0.70710678	12,414,877
	Texas	14,228,383	2	0.70710678	10,060,986
54	California	23,668,562	3	0.40824829	9,662,650
55	Pennsylvania	11,866,728	2	0.70710678	8,391,044
56	Illinois	11,418,461	2	0.70710678	8,074,071
57	Ohio	10,797,419	2	0.70710678	7,634,928
58	New York	17,557,288	3	0.40824829	7,167,733
59	Florida	9,739,992	2	0.70710678	5,887,214
60	California	23,668,562	4	0.28867513	6,832,525

Note: *The multiplier is merely the reciprocal of the geometric mean $\left(\dfrac{\sqrt{n(n-1)}}{1}\right)$

Source: Penelope E. Harrison et al. "Drawing the Lines—By the Numbers: The Statistical Foundations of the Electoral Process." Government Information Quarterly. Vol. 2. No. 4 (November 1985), p. 395. Statistics are taken from the 1980 Decennial Census.

How was representation brought back into constitutional "balance"?

For over 30 years after 1929, some States established new districts with little or no attention to "balance." They simply failed to redistrict despite major population movements or elected "members at large" to avoid redistricting. The result was that a district with a large population would have no more political "clout" than one that had few people: Each district still had only one representative.[1]

In a series of decisions beginning in 1962, the U.S. Supreme Court restored the equal-population rule and extended it to State and local legislative districts as well. In the case of Wesberry v. Sanders (1964), for example, the Court ruled that "as nearly as practicable, one man's vote in a congressional election is to be worth as much as another's." After the Voting Rights Act was passed in 1964, Federal courts held that using race to discriminate in drawing district boundaries was unconstitutional: in 1986, the U.S. Supreme Court stated that redistricting plans could not be challenged only because the proposed boundaries might discriminate against parts of the total population, such as Blacks or persons of Spanish origin. Thus race *and* population had to be considered in redistricting at any level.

gerrymander

← 1980 Census   ←·· 1970 census

What is the Census Bureau's role in the redistricting process?

When there has been a change in population or its distribution within States, almost all States use census data in altering their congressional and legislative district boundaries.

The States themselves—and not the Census Bureau—set these boundaries. Once they are law, however, the Bureau adds up the decennial census population of each congressional district and publishes the figures for official use.

The States, then, need the census and the Census Bureau's help in determining population counts for small areas. Congress passed legislation in December 1975, Public Law 94-171, which set up a voluntary program between the Bureau and States that wished to receive population tabulations for election precincts and certain other geographic areas. Those responsible for the legislative apportionment or redistricting of each State were to submit to the Secretary of Commerce a plan identifying the geographic areas for which they wanted specific tabulations of population from the 1980 census. This plan had to be submitted not later than 3 years before the census date, developed in a nonpartisan manner, and meet Census Bureau technical guidelines. In February and March 1981, the Bureau delivered the "Public Law 94-171 Population Counts" on computer tape, microfiche, and paper to 23 participating States and similar data to the other 27 States. In addition to the total population, there were counts of people in five race groups and of Hispanic/Spanish origin. The data covered the major geographic areas recognized in the census—States, counties, county subdivisions, places, census tracts (or block numbering areas), enumeration districts or block groups, census blocks, and election precincts where asked for, together with the numeric code for each area to help with the calculations. These statistics, which anyone could purchase, were for approximately 2.5 million blocks and over 300,000 additional small areas.

For 1990, the Census Bureau plans to block-number the entire country and to have counts for each of 8 to 12 million blocks. By offering State population figures by block as well as voting district, the legislators will be able to be much more flexible in creating redistricting plans to satisfy political considerations and legal guidelines. The 21st Decennial Census will be taken as of April 1, 1990. By April 1, 1991, the

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[1] Some examples of great disparities in congressional district population sizes in modern U.S. history include: New York (1930) 776,425 in the largest district and 90,671 in the smallest district; Ohio (1946) 698,650 and 163,561; Illinois (1946) 914,053 and 112,116; Arkansas (1946) 423,152 and 177,476; Texas (1962) 951,527 and 216,371; Michigan (1962) 802,994 and 177,431; Maryland (1962) 711,045 and 243,570; and South Dakota (1962) 497,669 and 182,845.

Census Bureau will deliver copies of census block maps, the 1990 Public Law 94-171 tape files, and prints of these data to the Governor and legislature of each State.

Much of the success of the 1980 redistricting data program and the 1990 program that follows is the result of a decade-long partnership involving State officials, the National Conference of State Legislatures, and the Census Bureau.

Aside from its direct goals, the program has served as an example of how State and Federal governments can work together to identify and fulfill a critical constitutional need.

What does the future hold for census data and elections?

The relationship between census statistics and representation has become more closely knit in the last two decades, largely because of the redistricting data program. Census Bureau planners are looking to the future and the increasing use of technological developments to meet the time requirements that States have to redraw their districts.

- Duplicating and providing the enormous number of maps for everyone engaged in the redistricting process has been expensive and time-consuming. The automated geographic system the Census Bureau is developing should make it easier and faster to produce maps with voting district boundaries. As States begin to have their own computerized map files, the exchange of current geographic information should be made more convenient.

The Bureau of the Census has recognized that it must be alert to the social and governmental changes that affect the people of the United States and the way in which they are represented. If there are new laws and rules, the Bureau may need to provide the States with more statistics; and as new developments occur in individual States and legislatures, it may need to change its procedures to adapt to new needs. The Census Bureau's connection to representation is a vital part of the constitutional system, and the commitment to work with the individual States in this basic governmental process is most important.

Summary

Given the laws and court decisions that require numbers and information about people, the importance of the decennial census cannot be overstated. The completeness and accuracy of population counts from every section of the country directly affect every citizen's voting strength. States use census information to define their congressional and legislative districts. If there is a disproportionate undercount in any area, the results will correspondingly lessen the effect of the people's vote in that area.

Just as "being counted" spelled equal representation in the Constitution in 1787, it means the same today. At a recent meeting of city officials planning for the 21st census in 1990, a demographer from Anchorage, Alaska, said, "If you're not counted, you're not represented, and if you're not represented, you're not going to have the same clout as others."

Today the census is even more important than it was 200 years ago. Equal representation is for everyone, citizen or not, and everyone must be counted for that. But the census results provide more than just the figures for apportionment. Distributing Federal and State funds among some 39,000 local governments also depends on census data. In addition, social and economic data are used in marketing studies and in locating new businesses; academic research; Federal, State, and local planning (such as for child-care and senior-centers, schools, and transportation); affirmative

MR. PRESIDENT HOW LONG MUST WOMEN WAIT FOR LIBERTY
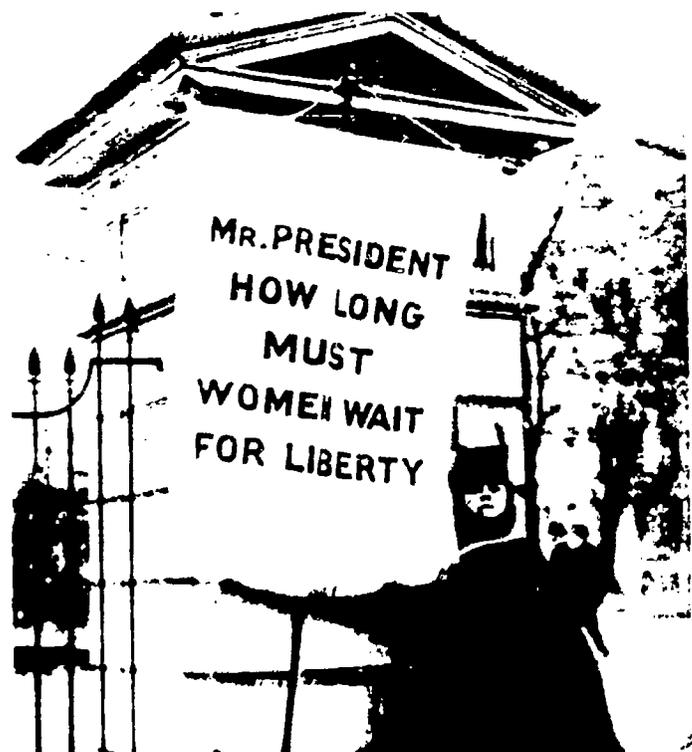
Courtesy Library of Congress

action programs; and many other activities.
Finally, the people of the United States expect
information about themselves, their community,
State, and Nation. Much of that information is
available only through the census, which remains
distinctively a cornerstone of the Constitution itself.

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UNCLE SAM. "Whe-ew!! And what will the tew hundredth be?"

Courtesy Smithsonian Institution, Div. of Political History, Photo No. 69751.

Figure 3. Portion of Census Questionnaire

Officially recognized by the
Commission on the Bicentennial
of the United States Constitution

STRENGTH IN NUMBERS

U.S. Department of Commerce
BUREAU OF THE CENSUS

89

88

STRENGTH IN NUMBERS

Your Guide to 1990 Census Redistricting Data From the U.S. Bureau of the Census

Strength in Numbers

Once every 10 years, Americans stand up to be counted. Downtown and out of town, in the mountains and on the farms, we speak up and let our Government know that we intend to be represented in the decisions it makes.

To be sure those we elect to our legislatures represent all of us, we all participate in a counting of the population known as the decennial census.

The census gives us an important part in the democratic process. Census numbers ensure that our voting districts — for the U.S. Congress and for State legislatures — reflect our numbers, north or south, east or west.

This brochure explains where census numbers come from and the role they have in the way we redraw the boundaries of our legislative and congressional districts. We look in particular at the maps and tables that State governments get from the Census Bureau and use in redistricting.

Why a Census?

The Bureau of the Census, part of the U.S. Department of Commerce, conducts the decennial census and issues official population counts. But there was a census long before the Census Bureau was created in 1902.

The first census was taken in 1790. Article I, section 2 of the U.S. Constitution established that the apportionment of the U.S. House of Representatives shall be based upon an enumeration of the population.

The imagination is the only limit upon the uses of the statistics that come out of the census.

The census has many other important uses. It affects our lives in ways we don't often realize. The road you take to work each day, the commercial you hear on the radio as you drive, the school your children attend, the products your grocery stocks — all these have been influenced by the census.

Government uses census statistics, for example, in planning needed highways or in locating new services or schools. Businesses use census numbers in marketing new products and locating new stores.

The imagination is the only limit upon the uses of the statistics that come out of the census.

The census affects our lives in ways we often don't even recognize. Census data are crucial in planning for transportation, business, education, and services.

The Census at a Glance!

During the last week of March 1990, the U.S. Postal Service (1, 2) will deliver census questionnaires to about 95 percent of American homes. Enumerators (3) will be used to take the census in rural areas and to check on questionnaires that have not been returned by mail in more populous areas. The forms are mailed back to a district office or a processing office or picked up by the enumerators. In the district office (4), clerks record each return using devices that read the bar code on the envelope.

The questionnaires themselves eventually will be sent to one of seven processing offices where they will be microfilmed and where more data will be electronically extracted through optical scanning devices (5). All information will be stored on computer tapes at Census Bureau headquarters.

Finally, the Census Bureau generates statistical data (6) for you to use in redistricting and in many other ways. Printed reports, computer tapes, and laser disks (CD-ROM) will bring the data to you.

Confidentiality Is a Must!

Title 13 of the United States Code contains the laws governing the Census Bureau. Section 9 of title 13 assures the confidentiality of information gathered by the Census Bureau. It specifies that neither the Secretary of Commerce, nor any other officer or employee of the Department of Commerce — in fact, no one — may use the information furnished under the provisions of this title for any purpose other than the statistical purposes for which it is supplied.

It states that no Census Bureau publication can identify any particular establishment or individual and that no one other than the sworn officers and employees of the Census Bureau can examine information supplied in response to censuses and surveys. However, after 72 years, the census schedules are opened to public inspection and use.

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Apportionment Is the Fundamental Use

According to the Constitution, the census has one fundamental purpose: to ensure that the representation of each State in the U.S. House of Representatives reflects the relative size of its population as compared with other States.

There are 435 Representatives divided up among the 50 States. Each one of these Representatives is elected by the voters of a congressional district.

Populous States have more Representatives than less populous States. In the 101st Congress, California, for example, has 45 Representatives. Wyoming, our least populous State, has just 1. The map on this page shows how many Representatives each State had as a result of the 1980 census.

"Apportionment" is the process of deciding how many Representatives each State is entitled to. How do we at the U.S. Census Bureau figure in this process? Our role is twofold — to conduct the census and, as a part of the Executive Branch, to calculate the apportionment based upon the census results. Once we take the census and compile the results, we then use the method of equal proportions (see box, right) to determine the number of Representatives each State receives.

"... as nearly as is practicable one man's vote in a congressional election is to be worth as much as another's."

— Wesberry v. Sanders

But our job doesn't end there. Court decisions and legislation have given the Census Bureau a major role in redistricting, the process by which State governments redraw U.S. congressional and State legislative districts.

Redistricting Must Aim at Equality

The decennial census has played a crucial role in the apportionment of the Congress for almost two centuries. But it is only in the last two decades that the Census Bureau has played a role in the redistricting process.

U.S. Supreme Court decisions handed down during the 1960's clarified the Constitution's intention to provide equality of representation for all Americans. In 1964, the *Wesberry v. Sanders* decision held that, "as nearly as is practicable one man's vote in a congressional election is to be worth as much as another's." That same year, in *Reynolds v. Sims*, the Court ruled that State legislative districts must be "as nearly of equal population as is practicable."

Both U.S. congressional districts and State legislative districts must be drawn so that their residents have a fair and equal share in the way they are governed.

The Supreme Court decisions made it necessary for States to use detailed census information in the redistricting process. The urgency of the States'

In 1980, the Sunbelt States Were the Big Winners!
Changes In Apportionment Resulting from the 1980 Census (Number in parentheses is each State's current total of U.S. Representatives.)

Total U.S Representatives: 435
- State gaining seats in the House
- State losing seats in the House
- No change

Method of Equal Proportions Guides Apportionment

How does the method of equal proportions work?

Adopted in 1941 (United States Code, title 2, section 2a), the method of equal proportions helps us compile a priority list of the States. Priority value is determined by dividing a State's population by the geometric mean of its current and next seats.

Following the 1980 census, each of the 50 States was awarded one seat out of the current 435 total. Then, the 51st seat went to the State that had the highest priority value for its second seat.

In computing the apportionment from the 1980 State totals, seat 51 went to California, whose priority value under the method of equal proportions was 16,736,300. The next seat, number 52, went to New York, with a second-seat priority value of 12,414,877, and Texas received seat number 53, with a priority value of 10,060,986.

Once the number of seats assigned to the individual States is determined, the task of drawing the new congressional districts is generally that of each State legislature.

Who Is Counted?

The U.S. Constitution (Amendment 14, section 2) states, "Representatives shall be apportioned among the several States according to their respective numbers, counting the whole number of persons in each State. . . ." Consequently, the Census Bureau counts *all* persons — the "whole number" — who are residents of the United States.

We do not count people living on the grounds of a foreign embassy, ministry, legation, chancellery, or consulate. Since these locations are legally considered foreign soil, people living there are not considered U.S. residents. Also, citizens of foreign countries temporarily visiting or traveling in the United States are not counted because they have not established a residence.

Americans temporarily abroad on vacations or business trips are counted at their usual residence in the United States. For the second time in history, Defense Department employees overseas, both military and civilian, and their families are included in the apportionment count.

3

need for these data led the Congress
to pass Public Law 94-171 in Decem-
ber 1975.

Later on, we'll discuss the ramifica-
tions of P.L. 94-171 more fully. First,
we'll look briefly at the census itself —
the important first step in the redis-
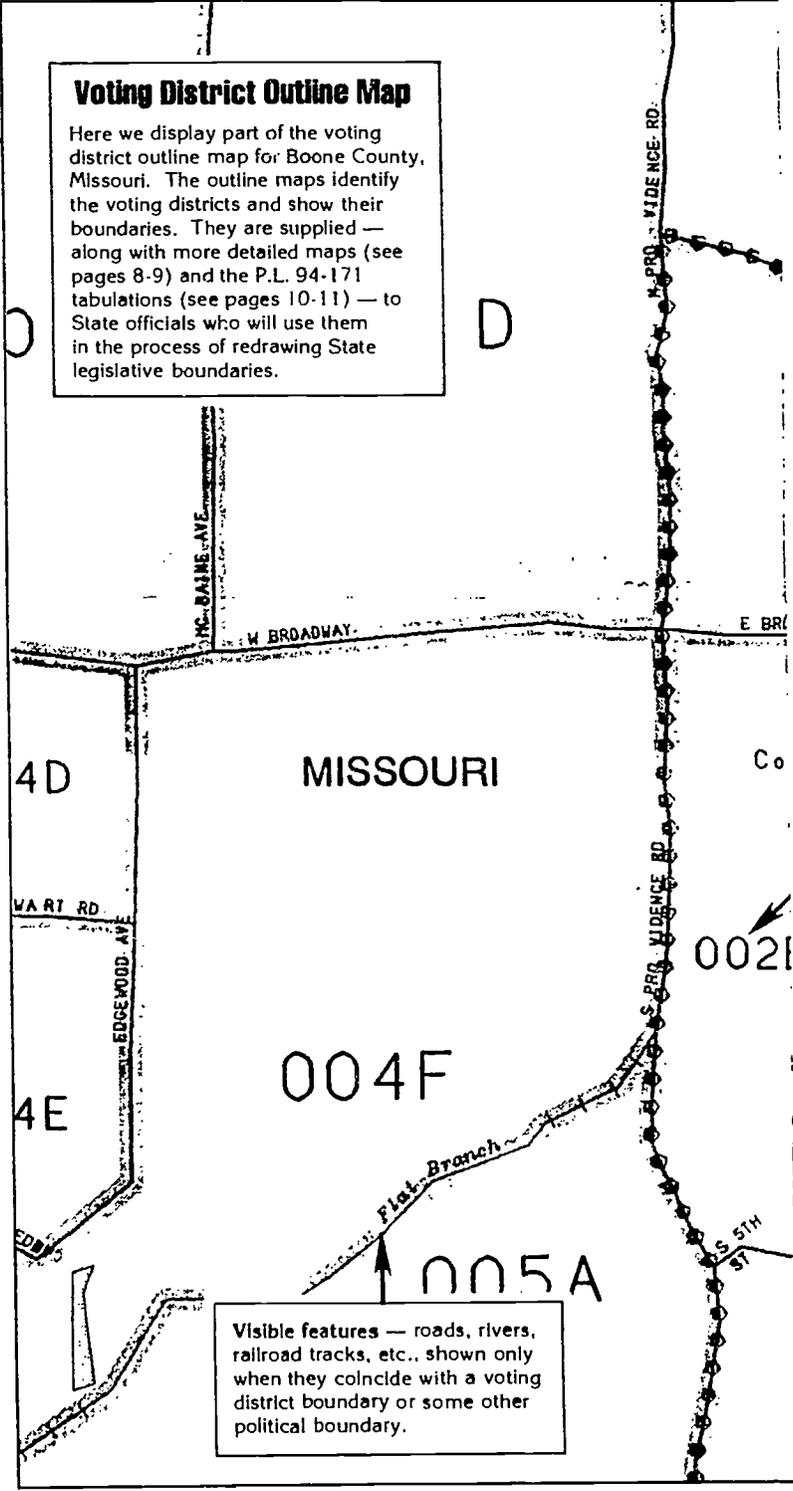tricting process.

Taking the Census

Before we look at the statistics and
the maps that States will use, let's
look at the census itself — the
undertaking through which we gather
the statistics.

We began to prepare for the 21st
decennial census long before 1990.
For the public, however, the process
begins late in March 1990 when
census questionnaires are mailed to
most households in the United States.
In some rural areas, census takers
deliver questionnaires. People fill out
the questionnaire by April 1, 1990 —
Census Day — and return them,
usually by mail.

In conducting the census, we use
enumerators working out of more than
450 district offices nationwide. In
processing the questionnaires, we use
seven regional processing offices.

People living in populous areas,
where most of us live, mail their forms
to district offices or, in a few cases,
directly to a census processing office.
In less populous areas, people fill out
and hold the questionnaires until a
census enumerator visits them.

As soon as the forms reach the
local census offices, the clock starts
ticking for the Census Bureau. These
offices use bar-code readers to record
the arrival of the questionnaires on
computers, so we can keep an
automated list of forms returned and
those missing. The processing offices
use laser sorters to accomplish this.

4

Voting District Outline Map

Here we display part of the voting
district outline map for Boone County,
Missouri. The outline maps identify
the voting districts and show their
boundaries. They are supplied —
along with more detailed maps (see
pages 8-9) and the P.L. 94-171
tabulations (see pages 10-11) — to
State officials who will use them
in the process of redrawing State
legislative boundaries.

Visible features — roads, rivers,
railroad tracks, etc., shown only
when they coincide with a voting
district boundary or some other
political boundary.

Commerce Secretary Will Decide on Adjustment of Census Counts

The Department of Commerce, which oversees the Census Bureau, will undertake a thorough reconsideration of the question of adjustment of the 1990 census for possible undercount or overcount of certain population groups. The Bureau will undertake the traditional enumeration, a post-enumeration survey (PES), and certain adjustment-related planning operations in a manner intended to result in the most accurate counts practicable. An adjustment will be made only if the Secretary of Commerce in his discretion determines that doing so satisfies the guidelines that are currently being developed by the Department for the decision on adjustment.

In addition to receiving advice from appropriate department officials and the Director of the Census, the Secretary of Commerce will appoint an independent advisory panel of eight experts to make individual recommendations on the question of adjustment. While not bound by the recommendations of the panel members, the Secretary will give due consid-

eration to such recommendations. The Secretary retains full authority over the decision whether to adjust the census figures.

The Department will report 1990 census counts to the President and to the States by the deadlines set forth in 13 U.S.C., section 141(b) — December 31, 1990, for the total population counts by State and April 1, 1991, for the detailed population counts within each State. If no decision on adjustment has been made by the statutory deadlines, the results of the traditional enumeration will be published with a notation stating that these population counts are subject to possible correction for undercount or overcount.

Should the Secretary decide that an adjustment is appropriate, adjusted census counts will be released no later than July 15, 1991. If a decision is made not to adjust the census, the Commerce Department will publish a detailed statement of the grounds for the decision.

002D

Voting districts — areas identified by the States and used by the States and local governments for elections. They may have other names, such as election districts, wards, or precincts. You can find data for all voting districts at the beginning of the P.L. tabulation right after the data for the overall county (see pages 10-11, table 1).

Codes explained — the voting district outline map identifies each district using a four-character code. A box on the map identifies the State's names for the districts, which may be a code (e.g., 002E) or a name (e.g., Jones Bridge Road Precinct). As an option, the State could add an asterisk to identify true voting districts. They adjusted all others so that their boundaries coincide with census blocks. This was a guideline of the redistricting data program.

VOTING DISTRICTS			
CODE	NAME	CODE	NAME
004E	VTD 4E	001C	VTD 1C
004F	VTD 4F	001D	VTD 1D•
005A	VTD 5A	002C	VTD 2C•
005B	VTD 5B•	002D	VTD 2D•
006A	VTD 6A	002E	VTD 2E•
006B	VTD 6B	003D	VTD 3D
02FA	VTD 2FA	004D	VTD 4D
02FB	VTD 2FB		

005

The district offices then ship their questionnaires to one of the seven processing offices where we microfilm them and use optical scanning devices to extract data. We compile preliminary housing unit counts for each block and then send them to officials of the appropriate county, county subdivision, and incorporated place. Called "local review," this process gives officials the opportunity to examine our counts and to identify blocks where they believe there are discrepancies.

Once we have completed the collection and processing, we begin to compile final counts in the Census Bureau's Washington office.

Census Day may be our most conspicuous deadline, but it's not our only one. Now we face several deadlines in processing the final census counts.

Off to the President

Next, the Census Bureau must prepare the final, official State population counts required for the apportionment of the U.S. House of Representatives. These official counts are reported to the President on or before December 31, 1990, a brief 9 months after Census Day.

According to the U.S. Code, the President must then report these figures to the Congress. He does this in early January 1991, during the first week of the 102nd Congress. This report will show —

- the population of each State
- the total number of Representatives (435)
- the number of Representatives each State may have

The apportionment section of the U.S. Code also tells the steps that are to be followed after the Congress receives the President's report. Within 15 calendar days, the Clerk of the House of Representatives must send to each State's Governor a certificate showing how many Representatives the State may send to the next Congress.

5

For the first time, microcomputers will play a major role in the redistricting process. Geographic and population data on compact disk (CD-ROM) will allow anyone with a micro and a CD-ROM reader — and the necessary software — to map out district boundaries. In the photo above, Census staff members Ramala Basu, Larry Carbaugh, and Jesus Garcia study a map drawn using coordinates from the Census Bureau's new TIGER files (see next page).

Microcomputer Tools

The 1990 census is the first to take place in the microcomputer age, and many people will use micros to create new legislative and voting district boundaries. P.L. 94-171 population counts (the statistical tables referred to elsewhere) will be available on printouts and computer tapes, and later in 1991, through the vastly more compact laser disk or CD-ROM (compact disk—read only memory).

Designed for use on personal computers, laser disks have a huge storage capacities that give greater access to volumnious data bases. Marshall Turner, chief of the redistricting data office at the Census Bureau, points out that this development will "level out the playing field" in that more people will have easier access to the data.

The Redistricting Process Begins

But wait! The clock is still ticking! The Census Bureau still has another important deadline to meet.

In December 1975, the Congress passed Public Law 94-171. This law requires the Census Bureau to make special preparations to provide redistricting data needed by the 50 States.

Public Law 94-171 specifies that within i year of Census Day, the Census Bureau must send each State the data it will need to redraw districts for the State legislature.

P.L. 94-171 set up a voluntary program between the Census Bureau and those States that wish to receive population tabulations for election precincts and other geographic areas.

Under this program, those responsible for the legislative apportionment or redistricting of each State must devise a plan identifying the geographic areas for which they want the specific tabulations and submit it to the Secretary of Commerce.

During 1985 and 1986, State representatives reviewed base maps for the 1990 census and suggested visible features to be used as block boundaries. In 1989, the Census Bureau sent each State a set of maps showing the boundaries and census assigned numbers for each census block.

States drew boundaries around groups of blocks that coincide with or approximate the boundaries of voting districts. They then returned the annotated maps with the voting district codes and names to the Census Bureau.

During 1989 and 1990, the Census Bureau, in cooperation with the National Conference of State Legislatures, conducted a series of regional workshops at which we briefed State officials on the 1988 dress rehearsal P.L. 94-171 test data, redistricting case law, census geographic and subject matter terminology, and other reapportionment information.

Marshall Turner, chief of the 1990 Census Redistricting Data Office, notes, "The critical importance of the census in redistricting is clearly reflected in the fact that participation has grown from 23 States for the 1980 program to all 50 in 1989." P.L. 94-171 data include population counts for political areas within each State. After we provide the data, further action is up to the States. States are responsible for setting their own congressional and legislative boundaries.

Redistricting usually is undertaken by a State's legislature or Governor, unless they choose to have it done by another State entity.

"Participation in the redistricting data program has grown since 1980," notes Marshall Turner, chief of the Census Bureau's Redistricting Data Office, shown here with assistant chief Cathy Talbert.

Tools to Do the Job

When State officials begin the difficult task of redrawing their voting districts, they'll have in hand several important tools:

* voting district outline maps
* county-based block maps
* statistical tables

P.L. 94-171 statistical tables have population counts for all appropriate geographic areas delimited on the maps: State, counties, voting districts, minor civil divisions, places, American Indian/Alaska Native areas, census tracts, block groups, and blocks.

You Need to Map Things Out!

The data shown in the P.L. 94-171 statistical table (see pages 10-11) won't mean much until you look at the accompanying maps and learn a little about the geographic areas listed in the table. We've made the 1990 census maps as clear as we can to convey the greatest detail about small areas. The maps are on as few map sheets as possible. The scale varies from map to map depending on area size and population density.

We made the maps using our new TIGER system, an automated geographic data base that the Census Bureau and the U.S. Geological Survey jointly produced. Although we are supplying printed maps to offices involved in redistricting, you also can

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get the TIGER geographic file on computer tape or laser disk (CD-ROM). When used with software available from commercial vendors, this file will enable you to produce customized maps on your own computer (see box, right).

What about printed maps? The Census Bureau sends States two map sets:

Voting district outline maps (see example, pages 4-5) show the county and the outline of all its voting districts. These maps provide a quick picture of areas that can be used as a reference as you construct new legislative districts.

When greater detail is needed, county block maps (pages 8-9) are the reference to consult. These maps show the smallest areas — census blocks — that can be used in the re-districting process.

You receive the county block maps as a roll of map sheets packaged in a mailing tube. The first map on the roll is the county index map, showing the location of each map sheet in the county. The index map for Boone County, Missouri, is shown on page 8 (upper left).

You'll find the county and State codes at the top of the index map. More importantly, the index map is your guide to the map sheets known as "parent" sheets. The total number of parent sheets is shown on the index map.

Page 8 provides a good example of an index map. As you can see, the county block map is divided into four parent sheets.

Inset Maps Give More Detail

On the index map, you'll also notice shaded areas. They identify densely populated areas where the map detail calls for a larger scale. These shaded areas are called "insets" and are shown in detail on separate maps.

Each inset shown on the index map is assigned a letter of the alphabet; if the inset map is on more than one map sheet, then each component map sheet is assigned a number.

Let's look again at the Boone County maps shown here. Each of the inset map sheets is designated with the letter assigned on the index map. Further divisions of the inset are designated with numbers.

At center is inset C, the city of Columbia, Missouri. Columbia is more densely populated than the areas around it. Its blocks are smaller, so we've turned it into an inset area divided into nine separate map sheets.

On pages 8-9, you will find part of inset map sheet C-5, showing voting districts, census tracts, and blocks in Columbia.

TIGER Is Friendly!

Think of the TIGER file as a huge map of the United States. That's basically what it is — a map that's computerized. It contains geographic coordinates (latitude and longitude) for the earth's surface features such as roads, railroads, and streams. It shows the political boundaries for areas such as cities, townships, counties, and American Indian/Alaska Native areas. It has geographic area codes for the statistical areas (such as census tracts) for which the Census Bureau collects and tabulates data. Within metropolitan areas, it even has address ranges and associated ZIP Codes for each side of street segments. TIGER has the names of streets and most of the waterways. ("TIGER" stands for topologically integrated geographic encoding and referencing.)

We developed TIGER jointly with the U.S. Geological Survey (USGS). We combined detailed USGS digital data (based on map sheets in which 1 inch equals 1.6 miles) with digital data from the geographic base files (GBF/DIME files) used in the 1980 census. We updated these digital files with new streets and street names. We updated political boundaries using boundary and annexation surveys.

This cooperative effort made it possible to assign block numbers for all census blocks in the entire Nation and to record this information in the data base. During phase 2 of the redistricting data program, the Census Bureau provided participating State governments with paper map sheets made from the TIGER file that show political boundaries and the boundaries of census blocks.

Because TIGER has political and statistical geographic area codes, you now have a powerful tool to display demographic data graphically. Using TIGER/Line extracts from the TIGER file and appropriate software, you can quickly determine the impact on the demographic makeup of a district when you move a boundary. You can quickly perform this analysis at all levels, from city wards to congressional districts.

There are two sets of TIGER/Line files: a precensus version and a census version. The precensus version available now has 1988 political boundaries; the census version available in 1991 has 1990 political boundaries. Precensus TIGER files do not show voting district boundaries. The postcensus TIGER files do show these boundaries. The average size of a State file is 100 megabytes (a county file ranges from 5 to 100 megabytes). The files come on computer tape at 1600 or 6250 bpi in EBCDIC or ASCII. The files also will be released on compact disk (CD-ROM) for microcomputers.

Many Uses!

What else can you do with TIGER? Many things! It can serve as the geographic base in market forecasting and site selection, sales and transportation routing, emergency services planning, and school district planning. These are just a few of the many ways you can use the TIGER/Line file.

And TIGER/Line is accessible to you whether you work on a mainframe computer or on your PC at home. The Census Bureau is not selling any mapping or other software to use with the TIGER/Line file. We're leaving that to the private sector. Many companies have rushed to fill the gap and already have software that may meet your needs.

Contact Customer Services (301/763-4100) at the Census Bureau for more information about these geographic files. Customer Services can supply you with a list of private companies providing the software you'll need to use the TIGER/Line files.

Putting the Puzzle Together

The county block map sheets that we're illustrating here are large. The standard sheet is 36" x 42". When using maps like these, it is often helpful to study the index sheet and then tape the map sheets together to form a complete picture of the county.

This produces a large map — one that can cover a wall from floor to ceiling. In addition, you may find it helpful to assemble the inset maps.

The insets also may consist of large map sheets and, taped together, may likewise cover a wall.

In many ways, putting together the county block maps is like putting together the pieces of a jigsaw puzzle. Just remember that the county index map is your guide. At the lower right hand corner of each individual map sheet, you will find the essential clue to the proper placement of the map sheet under "Key to Adjacent Map Sheets."

The maps will show voting districts. The map will use the State-assigned
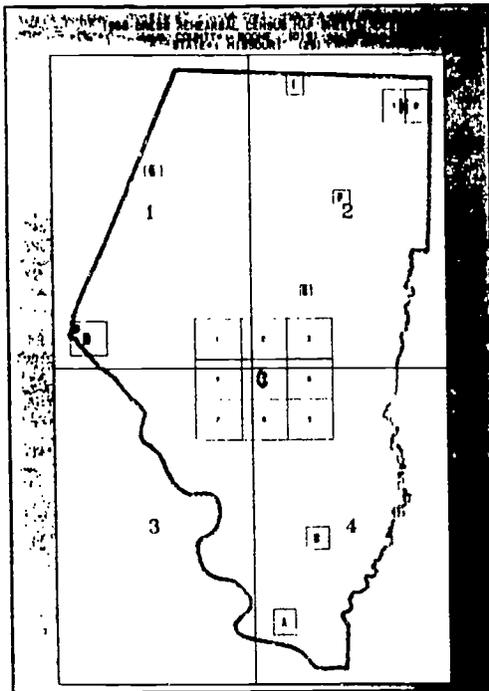
7
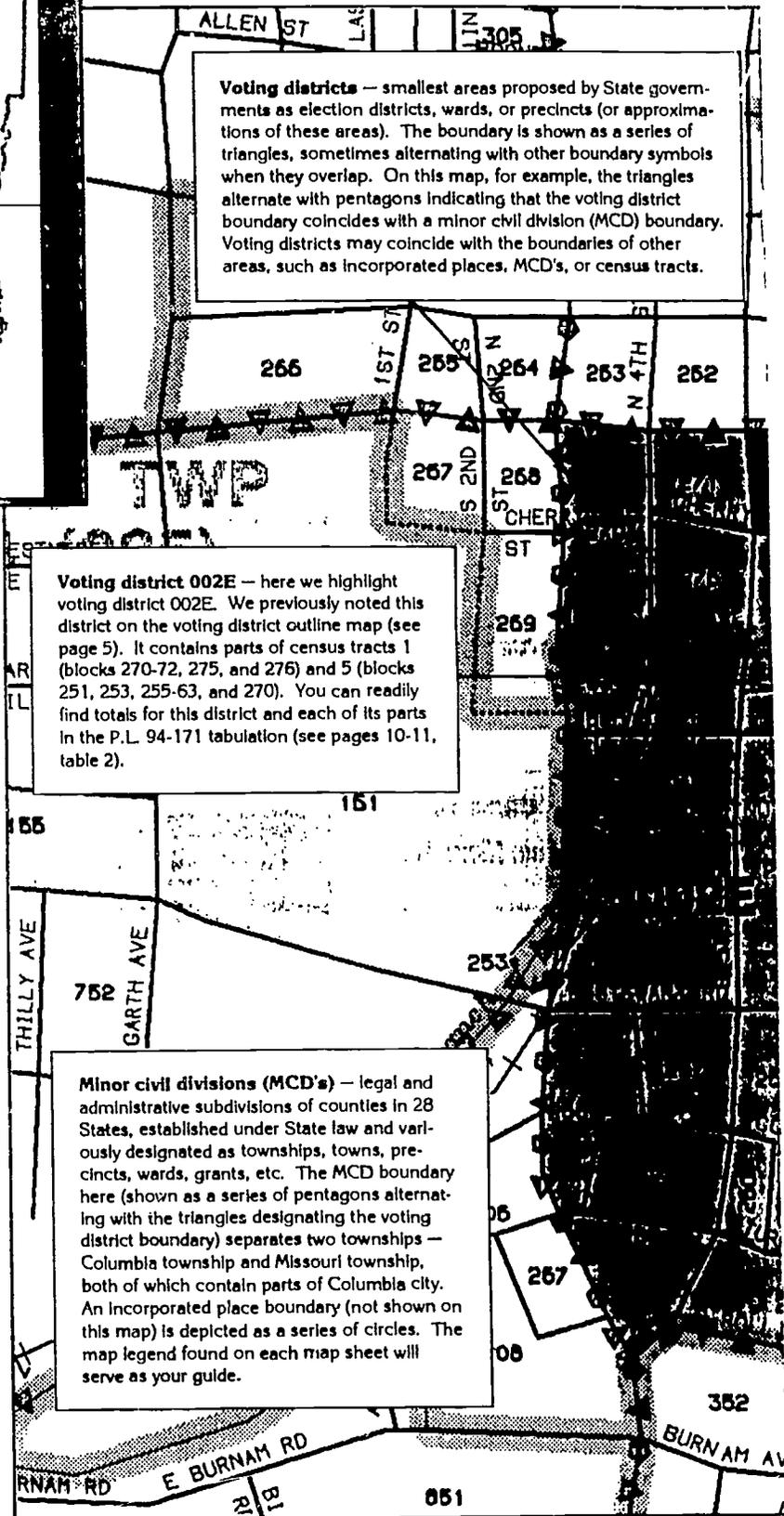
Voting districts — smallest areas proposed by State governments as election districts, wards, or precincts (or approximations of these areas). The boundary is shown as a series of triangles, sometimes alternating with other boundary symbols when they overlap. On this map, for example, the triangles alternate with pentagons indicating that the voting district boundary coincides with a minor civil division (MCD) boundary. Voting districts may coincide with the boundaries of other areas, such as incorporated places, MCD's, or census tracts.

Voting district 002E — here we highlight voting district 002E. We previously noted this district on the voting district outline map (see page 5). It contains parts of census tracts 1 (blocks 270-72, 275, and 276) and 5 (blocks 251, 253, 255-63, and 270). You can readily find totals for this district and each of its parts in the P.L. 94-171 tabulation (see pages 10-11, table 2).

Minor civil divisions (MCD's) — legal and administrative subdivisions of counties in 28 States, established under State law and variously designated as townships, towns, precincts, wards, grants, etc. The MCD boundary here (shown as a series of pentagons alternating with the triangles designating the voting district boundary) separates two townships — Columbia township and Missouri township, both of which contain parts of Columbia city. An incorporated place boundary (not shown on this map) is depicted as a series of circles. The map legend found on each map sheet will serve as your guide.

four-character code for each voting district within a given county. You'll also find these codes identified in the statistical table (see pages 10-11).

Once you find these districts on the maps or draw them yourself, you'll be able to begin the redistricting process. On your computer or on the actual map sheet, you can shift a census tract or a block from one district to another, thereby creating new district boundaries that meet legal criteria.

Before we turn to the statistics themselves, let's look closely at the detail shown on the county block maps. The legend is your guide to the symbols on the maps.

The areas you'll probably work with most are —

Voting districts: areas identified to the Census Bureau by the States. They may have other names, such as election districts, wards, or precincts. They appear on separate voting district outline maps and on the county block maps. States participating in the redistricting data program provided the boundary information we used in depicting these areas on the maps.

Census tracts: statistical areas averaging about 4,000 people. Counties in metropolitan statistical areas (MSA's) are subdivided into census tracts. Census tracts can be found in some other areas too. These areas remain fairly constant from census to census and thus are useful in a variety of applications.

Block numbering areas: aggregations of block groups in areas where there are no census tracts. No BNA's appear on the map example shown here.

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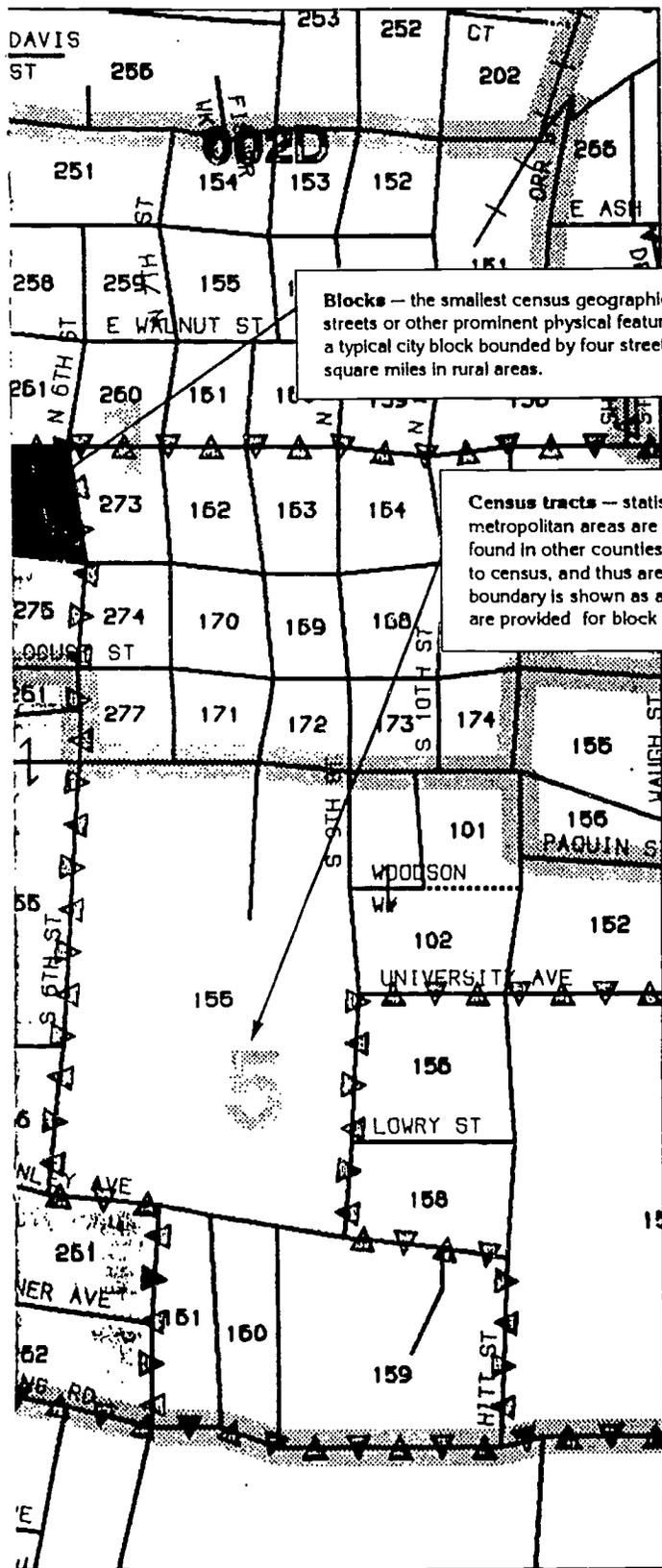
Blocks — the smallest census geographic areas, normally bounded by streets or other prominent physical features. They may be as small as a typical city block bounded by four streets or as large as several square miles in rural areas.

Census tracts — statistical areas averaging about 4,000 people. Counties in metropolitan areas are subdivided into census tracts. Census tracts can be found in other counties, too. These areas usually remain constant from census to census, and thus are useful in a variety of historical applications. The tract boundary is shown as a shaded pattern. In counties without census tracts, data are provided for block numbering areas (BNA's).

Block groups: a set of census blocks identified by the same first digit. On the map, for example, block group 2 includes all blocks beginning with this digit (i.e., 251, 253, etc.).

Blocks: the smallest census areas. A block averages about 70 people and in densely settled areas is commonly a small rectangular area bounded by four streets. It is identified with a three-digit code.

Once you study the map pieces and definitions shown here, you'll be ready to work with the statistics for these areas.

Public Law 94-171 Tables

Earlier we mentioned that we furnish each Governor and State legislature a computer tape and printout containing the P.L. 94-171 statistical tables. The law requires us to do this by March 31, 1991. Pages 10-11 show an example of a P.L. 94-171 statistical table based on the 1988 Boone County, Missouri, dress rehearsal census.

While P.L. 94-171 requires the Census Bureau to furnish only counts of the total population, additional data also will be included. Cathy Talbert, assistant chief of the 1990 Census Redistricting Data Office, notes, "We'll provide data on the voting-age population and cross tabulations of race characteristics for people of Hispanic origin."

Cross tabulations of race characteristics for people of Hispanic origin appear on P.L. 94-171 computer tapes only. Cathy notes, "We added these tabulations in response to recommendations we received at the 1983 national conference on the 1980 P.L. 94-171 program."

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As you study the P.L. 94-171 table shown here, note that the left-hand margin — or "stub" — identifies geographic areas. Population counts are given for the State, countries, voting districts, minor civil divisions, places, census tracts (or block numbering areas), block groups, and blocks.

Notice that some areas are indented in the stub. We do this to show the political, administrative, or tabulation hierarchy of the areas.

The census will yield counts for other areas as well, but the areas indicated in the stub are those most often used in redistricting.

For each area indicated in the stub, there are two rows of data — total population and population 18 years and over (eligible voters).

Running horizontally across the top of each P.L. 94-171 table appears the "header." The header defines the count appearing in the column below it: total population, race categories, and Hispanic origin.

You'll find categories for White; Black; Asian and Pacific Islander; American Indian, Eskimo and Aleut; and other races. There is also a separate category for those who identify themselves as Hispanics.

Hispanic origin is not considered a race category. Race and Hispanic origin data are obtained from separate questions on the 1990 census questionnaires.

Hispanic origin is not considered a race category. Race and Hispanic origin data are obtained from separate questions on the 1990 census questionnaires. Since those who identify themselves as Hispanic also answer the race question, we can provide tabulations of their race characteristics.

At the far right of the header are totals for persons not of Hispanic origin by race.

Four Tables in All

The P.L. tabulation actually consists of four tables. The data items in each case are identical; the header shown above applies to every page and to every area. What differs in the tables is the geography shown in the stub.

In addition to the State total, table 1 (shown above for Boone County) has data in three parts: for (1) the county itself, (2) all voting districts, and (3) all census tracts/block numbering areas.

PL. 94-171 Table

Table 1 Age by Race and Hispanic Origin: 1990
[For meaning of term

		Total	White
STATE COUNTY VOTING DISTRICT CENSUS TRACT/BNA	Header		
VTD 29......................	657	630
(0029)	18 years and over...	505	485
VTD 2A......................	2202	2081
(002A)	18 years and over...	1666	1591
VTD 2B ×.....................	2605	1924
(002B)	18 years and over...	1795	1449
VTD 2C ×.....................	1616	1502
(002C)	18 years and over...	1426	1080
VTD 2D ×.....................	740	458
(002D)	18 years and over...	636	427
VTD 2E ×.....................	924	805
(002E)	18 years and over...	919	800
VTD 30......................	1240	1222
(0030)	18 years and over...	883	871
VTD 31......................	2348	2335

Table 2 Age by Race and Hispanic Origin: 1990

VTD 2E ×......................		31
(002E)	18 years and over...	104
Columbia township (pt.)...........		83
	18 years and over...	924
Columbia city (pt.)...............		919
	18 years and over...	924
Census Tract 1 (pt.).............		919
	18 years and over...	924
Block Group 2 (pt.)..............		919
	18 years and over...	15
Block 270......................		15
	18 years and over...	15
Block 271......................		15
	18 years and over...	–
Block 272......................		5
	18 years and over...	5
Block 275......................		–
	18 years and over...	4
Block 276......................		4
	18 years and over...	6
Census Tract 5 (pt.).............		6
	18 years and over...	909
Block Group 2 (pt.).............		904
	18 years and over...	909
Block 251......................		904
	18 years and over...	–

Table 2 (also shown above), the largest in the P.L. tabulation, has statistics for all the voting districts in a county and parts of other areas (MCD's, places, tracts, etc.) in a particular voting district. As table 2 shows, the format is hierarchical.

Table 3 is an inventory of all county subdivisions and places within each county. Table 4 is an inventory of all American Indian areas.

You will probably rely on table 1 to study the overall distribution of population in each voting district and to measure variation among districts. You'll probably make most use of table 2 in redefining boundaries.

You'll probably make most use of table 2 in redefining boundaries.

Building Blocks

The geographic areas identified in the stub of the P.L. 94-171 table serve as building blocks in drawing district boundary lines. You'll find that all the areas listed in the table are shown on the county block maps.

Census blocks are the smallest areas for which we release data. The 1990 census is the first for which the entire United States will have block-by-block census counts.

Imagine you're redrawing boundaries in a densely populated urban area. You'll probably use census blocks or block groups to come up with district boundaries or to make adjustments to existing boundaries. In Boone County, for example, you would probably make adjustments to voting districts using individual

Race counts — header displays five major racial groups.

Hispanic counts — Hispanics may be of any race. The P.L. 94-171 tabulations show counts for total Hispanics. Through subtraction you can also determine their racial characteristics.

s and symbols, see text

table 1

Race					Hispanic origin (of any race)	Not of Hispanic origin		
Black	American Indian, Eskimo, and Aleut	Asian and Pacific Islander	Other races			White	Black	Other races
16	8	1	2		1	630	16	10
13	5	1	1		1	485	13	6
95	-	25	1		11	2071	95	25

> **Voting Districts** — here in table 1 we show the totals for voting districts in Boone County and then in table 2 highlight a single voting district (002E). The asterisk denotes a true voting district; in other cases, voting district boundaries have been made to coincide with statistical boundaries recognized by the Census Bureau, a guideline of participation in the redistricting data program.

Black	American Indian	Asian	Other	Hispanic	White	Black	Other
2	6	4	-	1	870	2	10
-	9	1	3	7	2330	-	11

table 2

-	31	-	-	-	-	-	31	-
36	67	-	1	-	2	35	66	1

> **Census tracts** — shown here in table 2 is the geographic hierarchy into which census tracts fit. In addition, table 1 has a separate list of census tracts similar to this list of voting districts shown here.

35	1	81	21	81	795	34	82

> **Parts** — "pt." means "part." The bulk of table 2 in the P.L. tabulation shows counts for voting districts and those parts of a particular MCD, place, census tract (or BNA), or block group that falls within a voting district. Thus, voting district 002E contains part of census tracts 1 and 5. The other parts of these tracts fall in other voting districts.

> **Blocks** —census blocks are the building blocks out of which you'll rebuild voting districts, especially in densely populated areas. Within 1 year of the Census, the Census Bureau must produce counts for every block in the Nation.

blocks. The voting districts are so small that working with larger areas (i.e., census tracts or block groups) doesn't seem practical.

When you're drawing district boundaries in less densely populated areas or where voting districts are larger, you'll probably prefer to use groups of blocks — block groups, census tracts, or block numbering areas.

Though census tracts and block numbering areas are similar — in size and average population — there are differences worth noting.

For the most part, census tract numbers remain the same from one census to the next.

When census tracts increase substantially in population, they are often split into two or more new tracts. Carved out of existing census tracts, these new tracts are identified by the original tract code plus a suffix.

Census tract codes can have up to four characters and a two-character suffix (e.g., 0016.01). And the codes may differ according to the media you're working with. Census tract 16, for example, has only two characters on the map and the printout table shown above. If you're using a tape file or a CD-ROM, you find this code given as 0016. Leading zeroes are shown in the computer files, but not on the maps or in the printed tables.

Block numbering areas (BNA's) are not shown on the maps or in the tables discussed here, but they may occur in the products you're using. They are generally found in rural or nonmetropolitan areas. They look very much like census tracts, and you won't find it necessary to distinguish them in your redistricting efforts.

These are the small geographic areas you need to know about when drawing voting district boundaries.

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