TYPES OF MAPS
Types of Maps

Session Objectives:
At the conclusion of this session, you will be able to:

• Explain the difference between general purpose and thematic maps.

• Identify different types of thematic maps.
Types of maps

• *general purpose*
  – (reference maps)
    - emphasis on location
    - all data at same level of importance

• *examples:*
  - topographic maps
  - street maps
  - atlas maps
General Purpose: Topographic
General Purpose: Street Map
General Purpose: Atlas Map
Types of maps

• thematic
  – (special purpose, single topic, statistical maps)
    - data “on” a base map
    - specific purpose

• examples:
  - choropleth, dot, graduated circle maps
  - isoline, flow maps
  - value by area maps (cartograms)
Thematic: Choropleth Map

Minority Prevalence, 2000
Hispanic or Latino Origin and All Races Except White

Minority group with highest percent of state population
Excludes White, not Hispanic

Minority group with highest percent of county population
Excludes White, not Hispanic

Data Source: U.S. Census Bureau, Census 2000
Redistricting Data (RDS-4 17E) Summary File
Cartographic Population Division, U.S. Census Bureau
American FactFinder at factfinder.census.gov provides census data and mapping tools.

Mapping Census 2000: The Geography of U.S. Diversity 21
Thematic: Choropleth Map

Average Annual Soil Erosion by Water on Cropland and CRP Land, 1997

41 million acres are eroding at a rate above 5 tons/acre/year. The national erosion rate averages 2.6 tons/acre/year. Total erosion equals 1,086 million tons.

Data are only displayed where cropland and Conservation Reserve Program (CRP) land are 5% or more of the total area. Gully erosion is also excluded from the analysis.

Watersheds are defined as U.S. Geological Survey Hydrologic Cataloging Units (8-digit).

Map ID: m5058
For proper interpretation, see Explanation of Analysis for this map at our web site. Search for “USDA NRI” to locate our map index.

Data Source: 1997 National Resources Inventory, Revised December 2000
Thematic : Choropleth Map
Thematic: Dot Map

Distribution of Minority Operated Farms, 1997

- 1 Dot = 5 African American Farms - 18,451 total farms
- 1 Dot = 5 American Indian Farms - 18,495 total farms
- 1 Dot = 5 Asian/Pacific Islander Farms - 8,731 total farms
- 1 Dot = 5 Other Non-White Farms - 9,838 total farms

Data Source: Census of Agriculture, 1997
Thematic: Dot Map

- Pump
- Contaminated pump
- Cholera death
Thematic: Dot Map

Total Pop

- 2,000 People

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Thematic: Graduated Symbol Map

Legend
- pH in Standard Units
  - 5.87 - 7.21
  - 7.22 - 7.52
  - 7.53 - 7.79
  - 7.80 - 8.13
  - 8.14 - 8.67

Drainage Type
- Perennial Stream
- Intermittent Stream

Study Area

Notes:
- CDCC Water Quality database
- Roads and streams from Garfield County GIS Department
- USGS topographic maps from USGS

Figure 5-11
Graduated Symbol Map of Field-Measured pH in Groundwater
Thematic: Proportional Symbol Map

EUROPE
Population by Country
Thematic : Isoline Map
Thematic: Isoline Map

MEAN ANNUAL PRECIPITATION

Note: Isolines depict areas of equal annual precipitation. Data from 1957 and 1973 at 15 selected stations in Mexico. For source and distribution of precipitation, consult original work.
Thematic: Flow Map
Thematic: Value by Area Map (Cartogram)
Thematic: Combination of which?
Thematic or General Purpose?
Book Recommendations

ELEMENTS OF CARTOGRAPHY
FIFTH EDITION

ARThUR H. ROBINSON
RANDALL D. SALE
JOEL L. MORRISON
PHILLIP C. MUEHRcke

ELEMENTS OF CARTOGRAPHY
SIXTH EDITION

ARThUR H. ROBINSON
JOEL L. MORRISON
PHILLIP C. MUEHRcke
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