Regional and Other Geospatial Education Opportunities

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North Central Regional Geospatial Symposium

Trenton, Missouri
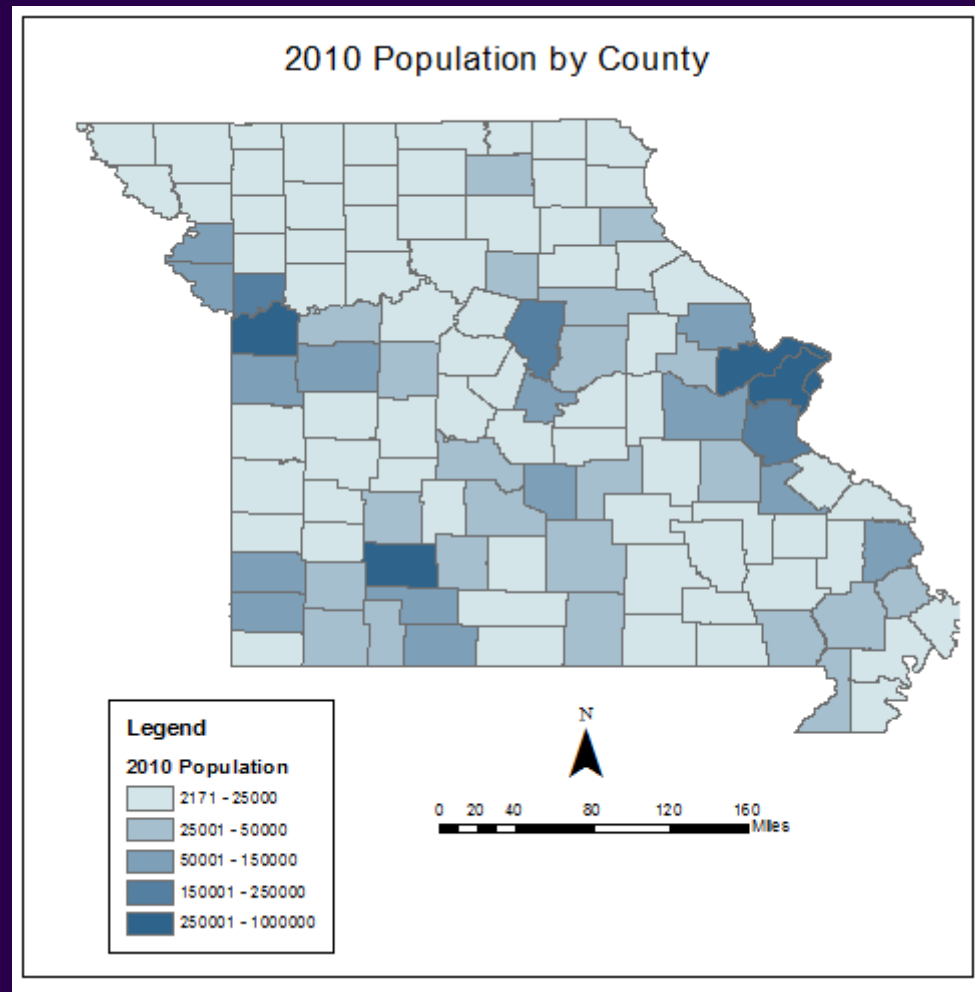
October 24, 2012

Geospatial Education or Software Training?

- Geospatial education

  - Learn and understand concepts and principles of geospatial technology so that the technology is used correctly

  - Avoid bad maps, inaccurate data, illogical analyses

- Geospatial software training

  - Learn and understand how to use software and its many capabilities
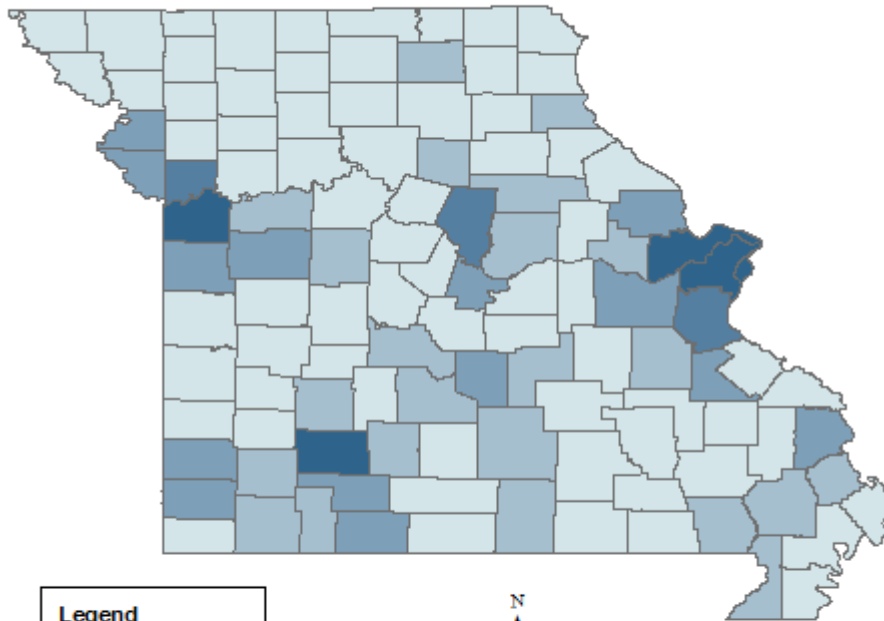
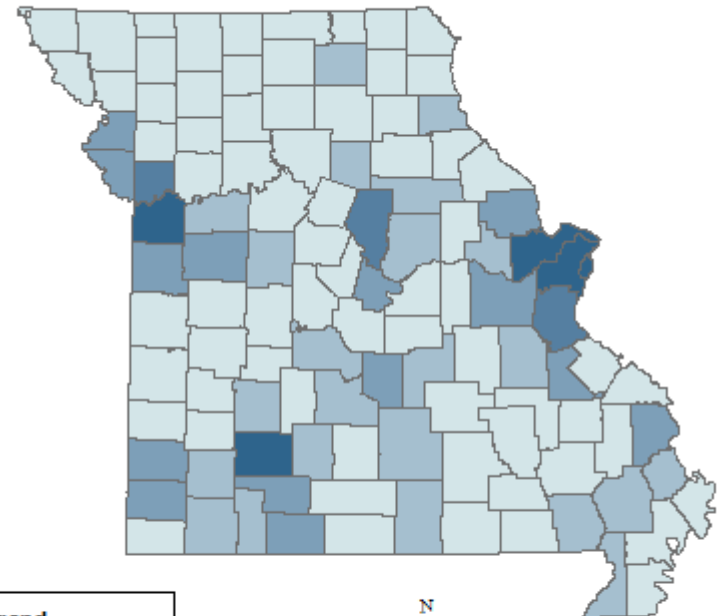- Both are important, both overlap

What is wrong with this map?

2010 Population by County

Use a Planar Coordinate System,
not Latitude/Longitude

Latitude / longitude

UTM coordinate system

True or False?

Question: I want to use an overlay operation to find what soil types coincide geographically with parcels proposed for a new land fill. Soil data are at a scale of 1:24,000. Parcel data are at a scale of 1:1,200. My analysis results will be accurate at the scale of 1:1,200.

True or false?

Answer: False. Larger scale data do not improve the scale and resolution of smaller scale data.

Geospatial Education and Training Opportunities

- University and college courses and degree/certificate programs

- Software training courses by software vendors and others

- Tutorial books

- GIS conferences and workshops

- User groups

NORTHWEST
MISSOURI STATE UNIVERSITY

Northwest Missouri State University
Online GIScience Programs

- Completely online M.S. and graduate certificate programs in Geographic Information Science (GIScience)

- M.S. degree: 32-35 credit hours, including a thesis

- Graduate certificate: 12-15 credit hours (4 or 5 courses)

- Courses taken for the certificate count towards the M.S. degree

- Courses run on the same academic calendar as on-campus courses

- For details, see www.nwmissouri.edu/dept/gis

Our Students

- Most are working full-time

- Previous courses or use of GIS is beneficial, but not required

- Average student takes 1-2 courses per term

- Time to complete:
  - M.S. degree: 3-4 years
  - Certificate: 1-2 years

"Non-degree Seeking" Option to Take a Course

- Students take a course or two without earning a degree or certificate

- Available when we have unused seats in our courses

- Non-degree seeking admission requirements: Online application (plus Bachelor's degree if enrolling as a graduate student)

- Option for those who want to take 1 or 2 courses

- Principles of GIS (32-545)
  - Foundation course in GIS
  - Can be taken for either undergraduate or graduate credit

Cost of Northwest's GIScience program

- $359.72 per credit hour for graduate web course for Missouri resident, $596.94 for non-Missouri resident

- Cost for Missouri residents:
  - M.S. degree – about $14,000
  - Certificate – about $6,000

Other University and College Programs

- University of Missouri – Columbia, undergraduate and graduate certificate programs: http://geography.missouri.edu/giscert/

- University of Missouri – Kansas City, Advanced Certificate in GIS

- Esri's online database of academic GIS programs: http://edcommunity.esri.com/universityprograms/onlinedb.cfm

Software Training Courses

- Esri software training courses

  - Instructor-led courses, both in classroom and online ($515 per day)

  - Web-based courses
    - Generally, $32 per 3-hour module
    - Some modules are free

  - Technical seminars
    - Free recorded technical presentations
    - Targeted topics

- Other software vendor training courses

- Independent software training

Tutorial Books and GIS Textbooks

- Esri Press tutorial books: www.esripress.esri.com

  – *GIS Tutorial* series

  – *Getting to Know ArcGIS Desktop*

- GIS textbooks

  – *Mastering ArcGIS*, by Maribeth Price, 5th edition, McGraw-Hill, 2012

  – *An Introduction to Geographical Information Systems*, by Ian Heywood, Sarah Cornelius, and Steve Carver, 4th edition, Prentice Hall, 2011

  – *GIS Fundamentals: A First Text on Geographic Information Systems*, by Paul Bolstad, 4th edition, Eider Press, 2012

GIS Conferences and Workshops

- Paper sessions, short courses, vendor exhibits, networking

- Missouri Mappers Association, annual meeting July 23-26, 2013, www.missourimappers.org

- Two Missouri conferences held alternate years
  - Missouri GIS Conference, Feb. 19-21, 2013, Chesterfield, www.mogis2013.org/
  - MidAmerica GIS Consortium (MAGIC), April 27- May 1, 2014, Kansas City, www.magicgis.org/

- Urban and Regional Information Systems Association (URISA), www.urisa.org

User Groups

- Regional GIS users groups

- Software specific: ArcGIS user groups

- Good site to learn about conferences and user groups - Missouri Spatial Data Information Service: http://www.msdis.missouri.edu/

More to Know Than Just GIS – Geospatial Technologies

- Geographic Information Systems (GIS)

- Global Positioning Systems (GPS)

- Remote sensing (satellite imagery)

- Geodatabase design

- Programming with a scripting language, like Python

- Web GIS applications

Questions?

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