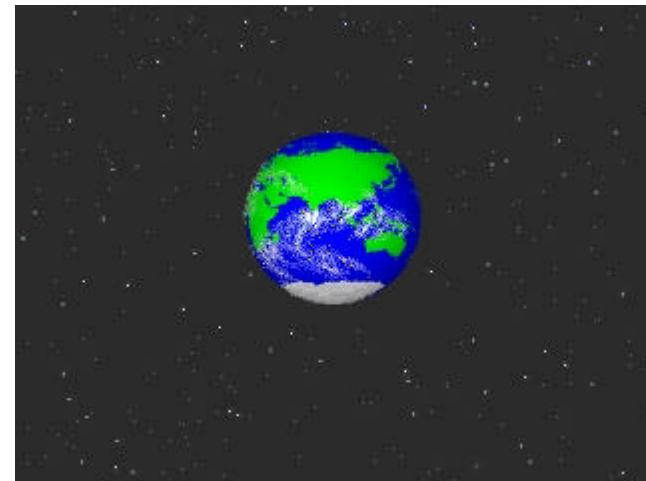


Customer Service Toolkit and GIS

Geographic Technology for Conservation Planning

Brent Stinson
State GIS Specialist
NRCS, Michigan



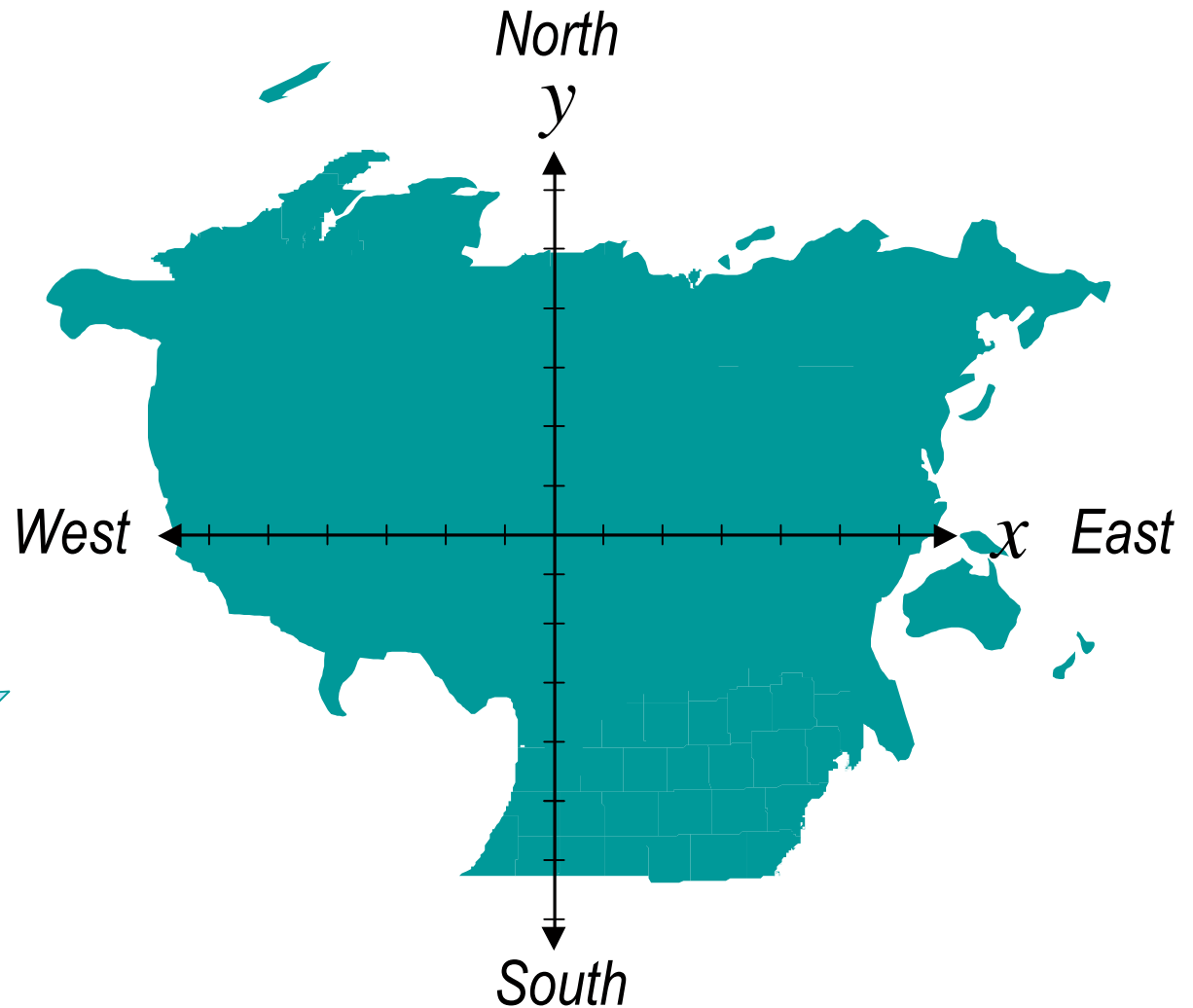
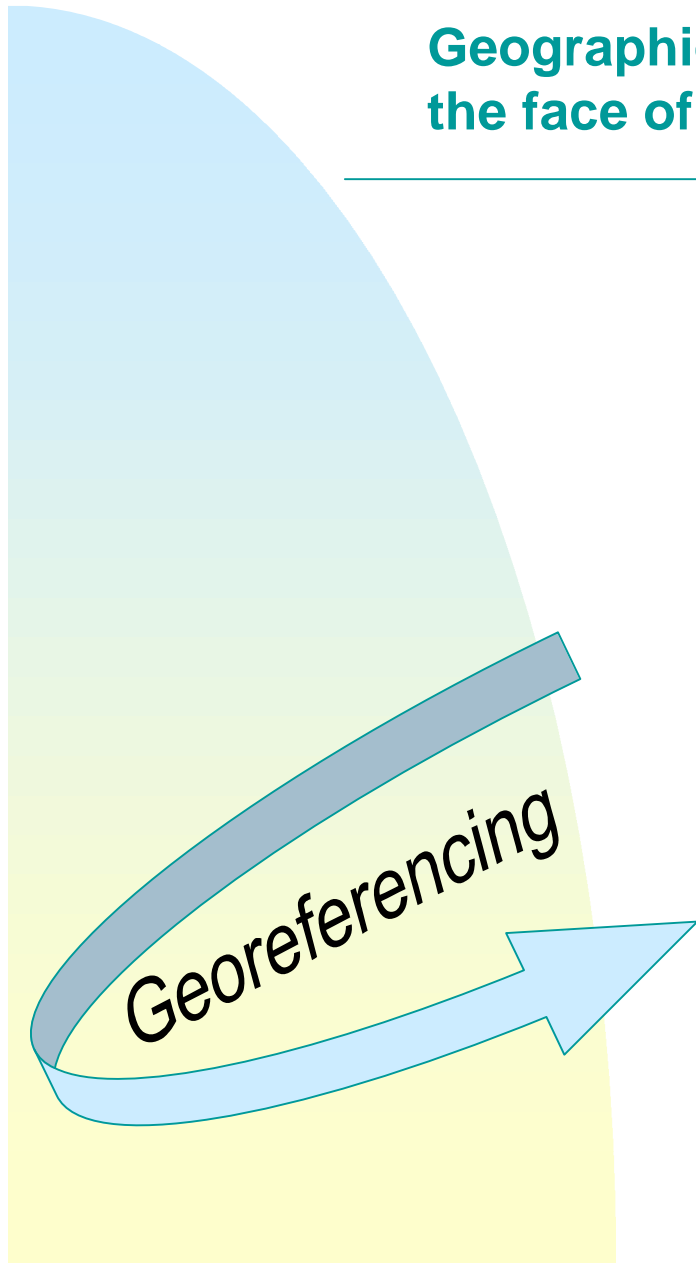
What Is GIS?

The term “GIS” stands for...

Geographic
Information
System

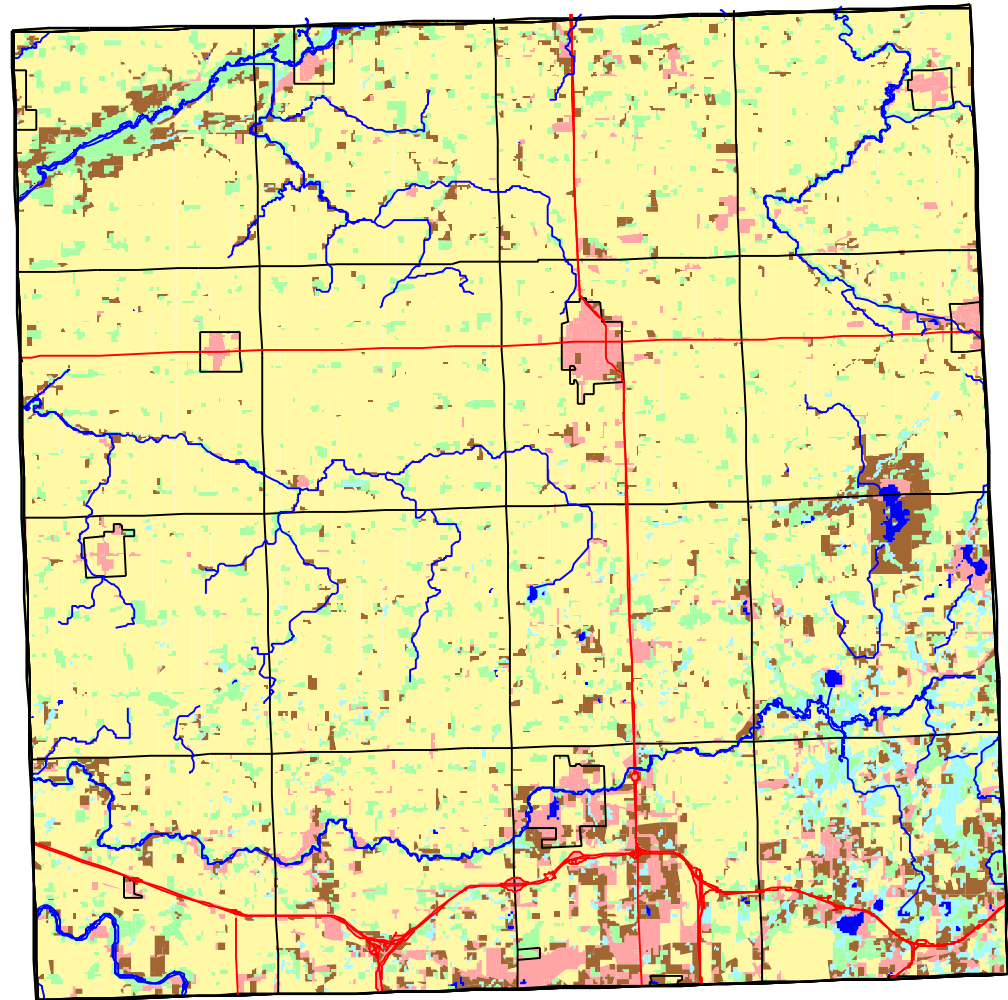
What is **G**eographic ???

Geographic refers to the process of locating points on the face of the Earth by way of x and y coordinates.

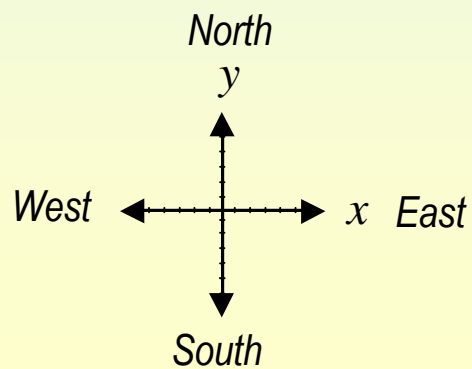


Since GIS data is **georeferenced**, multiple data layers may be overlaid simultaneously.

Land Use
Local Bounds
Highways
Streams



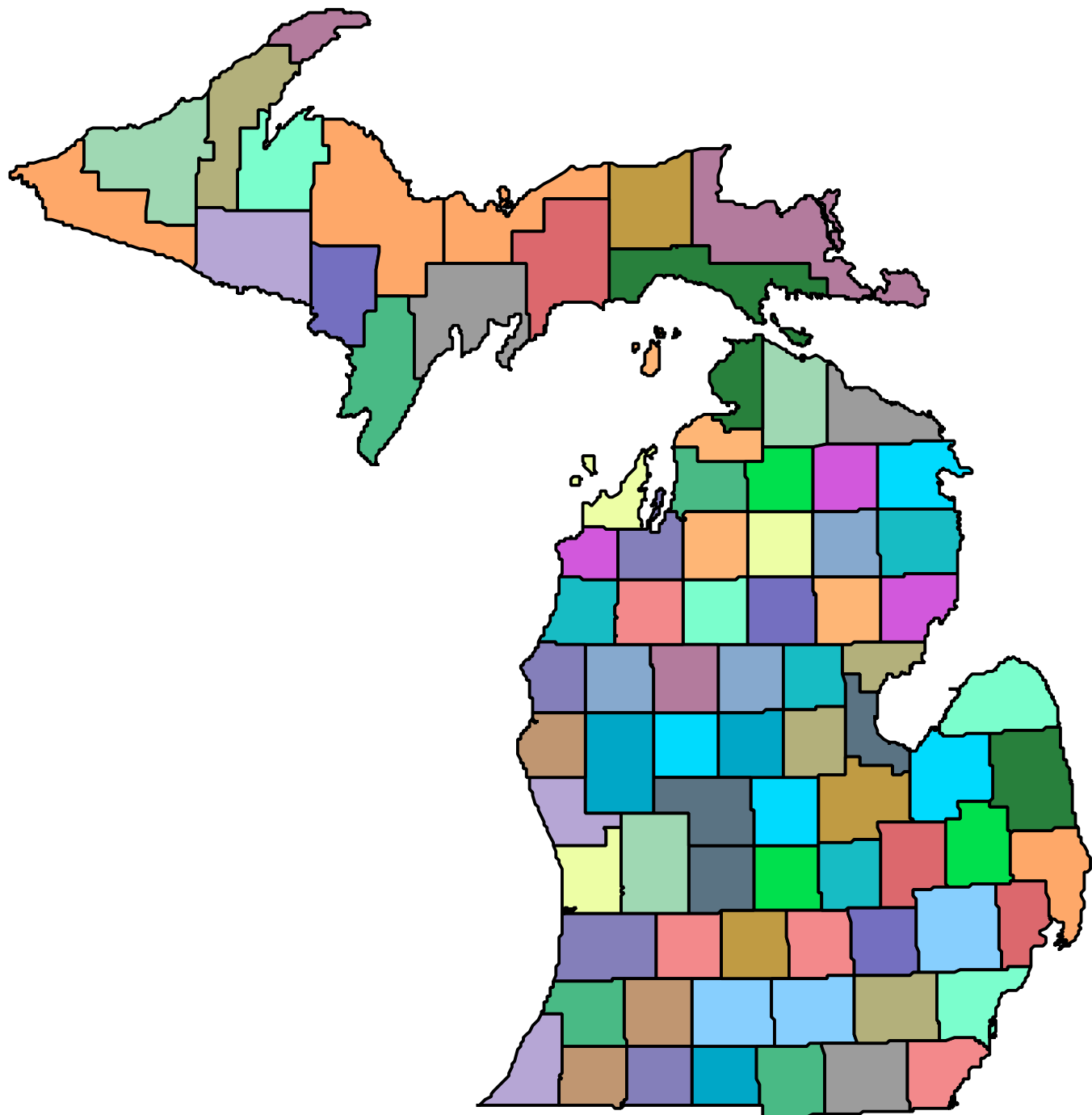
Georeferencing



What is **G**eographic **I**nformation ???

Geographic information is any data that can be referenced to a known point on the face of the Earth.

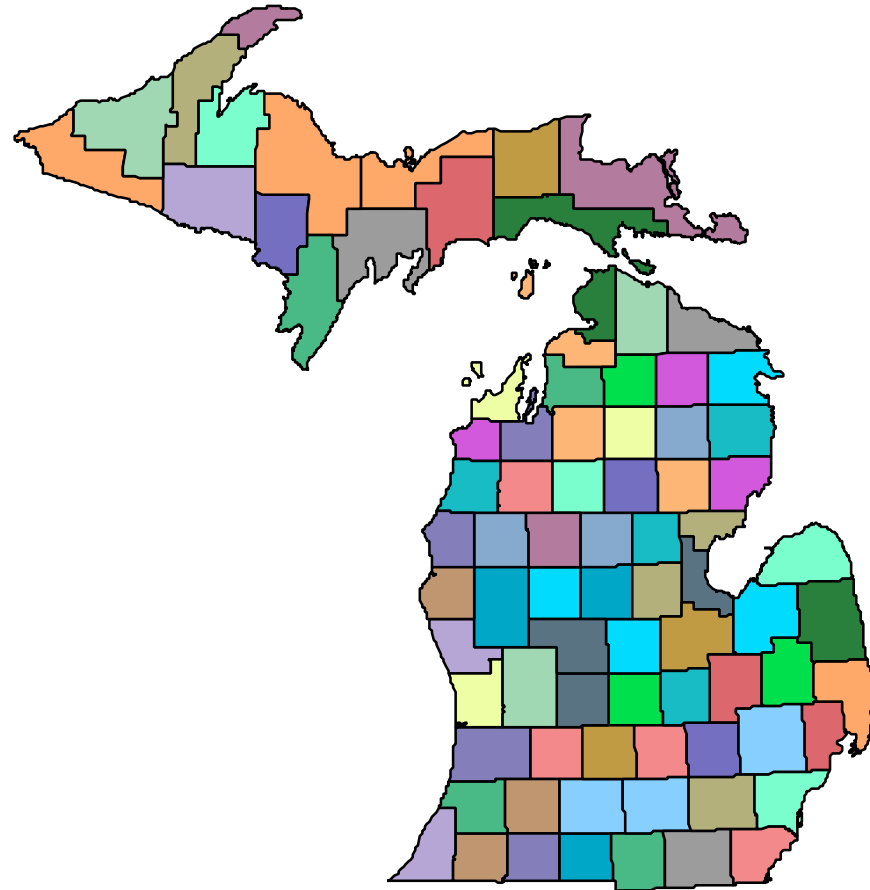
**There are two main types
of geographic information...**



What is **G**eographic **I**nformation ???

Geographic information is any data that can be referenced to a known point on the face of the Earth.

Spatial Data: Graphically represents specific spaces on the face of the earth.



WHERE ??
WHERE ??

What is **Geographic Information** ???

Geographic information is any data that can be referenced to a known point on the face of the Earth.

Tabular Data: Text-based information about conditions at specific places on Earth.

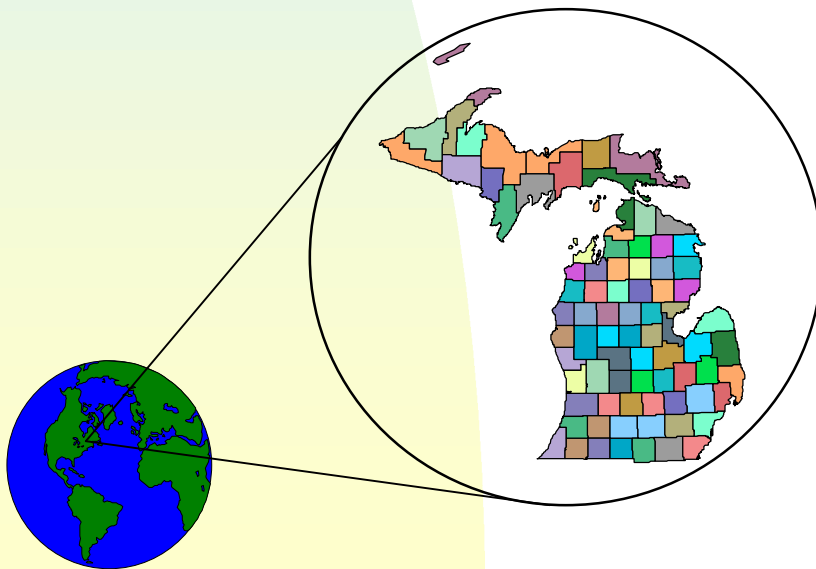
NAME	POP90	POP97	HOUSEHOLDS	MALES	FEMALES
Alcona	10145	10889	4261	5048	5097
Alger	8972	10009	3337	4610	4362
Allegan	90509	100094	31709	44815	45694
Alpena	30605	30752	11838	14845	15760
Antrim	18185	20901	6980	8890	9295
Arenac	14931	16398	5642	7304	7627
Baraga	7954	8494	3065	3999	3955
Barry	50057	53518	17763	25032	25025
Bay	111723	110570	42188	54044	57679
Benzie	12200	14286	4772	6019	6181
Berrien	161378	161421	61025	77324	84054
Branch	41502	43189	14921	20303	21199
Calhoun	135982	140447	51812	65788	70194
Cass	49477	50232	18239	24280	25197
Charlevoix	21468	23744	8243	10519	10949
Cheboygan	21398	23213	8201	10345	11053
Chippewa	34604	37567	11541	19192	15412
Clare	24952	29054	9698	12069	12883
Clinton	57883	62741	20212	28812	29071

WHAT ??

What is a Geographic Information System ???

A GIS is a computer-based system for the storage, management, **analysis**, and display of spatial and associated tabular data.

Spatial Data



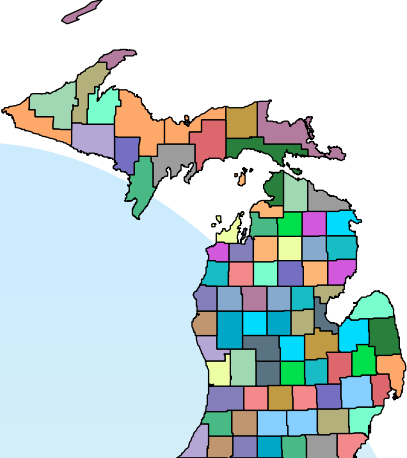
Tabular Data

County	Population
Alcona	10,889
Alger	10,009
Allegan	100,094
Alpena	30,752
Antrim	20,901
Arenac	16,398
Baraga	8,494
Barry	53,518
Bay	110,570
Benzie	14,286
Berrien	161,421
Branch	43,189

Related



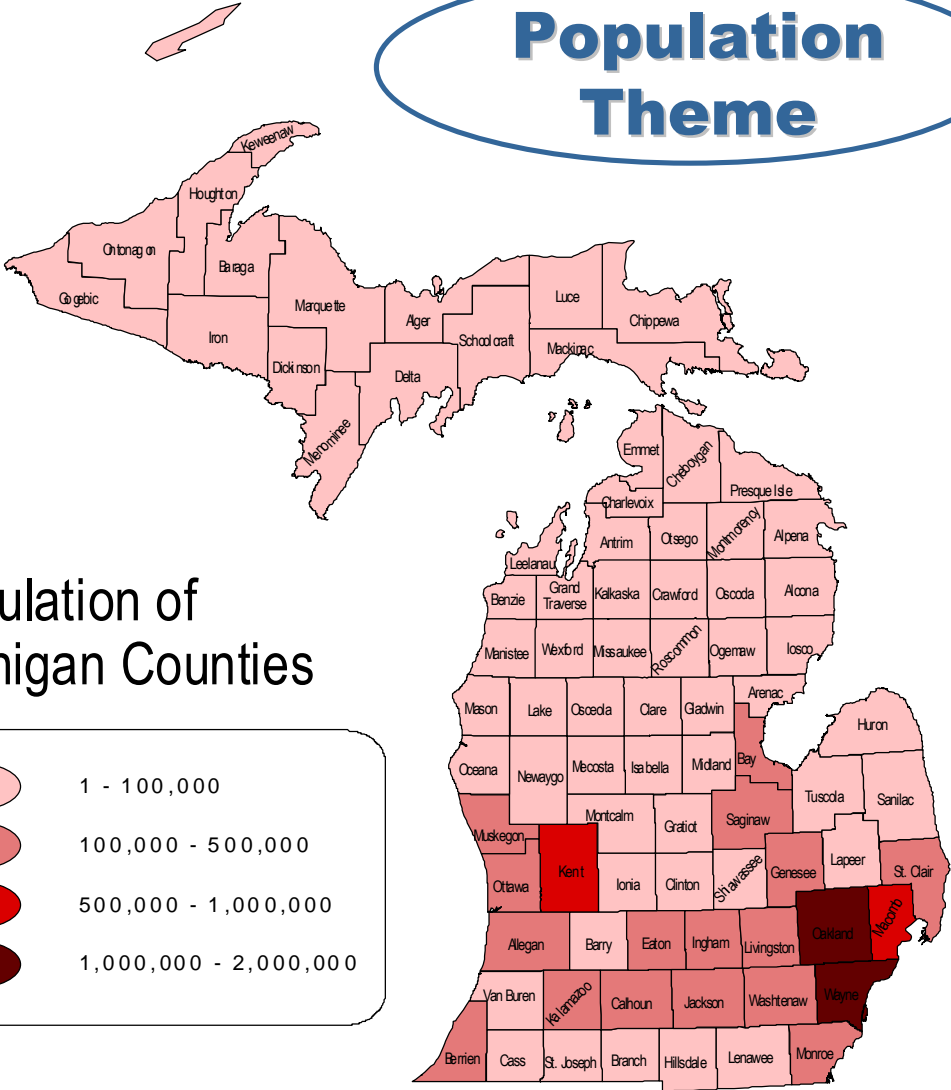
Combining spatial and tabular data



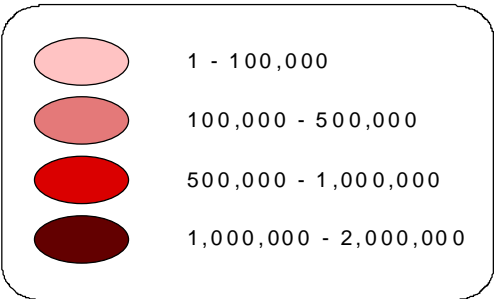
GIS

County	Population
Alcona	10,889
Alger	10,009
Allegan	100,094
Alpena	30,752
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Arenac	16,398
Baraga	8,494
Barry	53,518
Bay	110,570
Benzie	14,286
Berrien	161,421
Branch	43,189

Population Theme



Population of Michigan Counties



Combining spatial and tabular data

Soils Theme

Spatial Data

Geographic
Locations of
Soil Shapes

Where is it ?

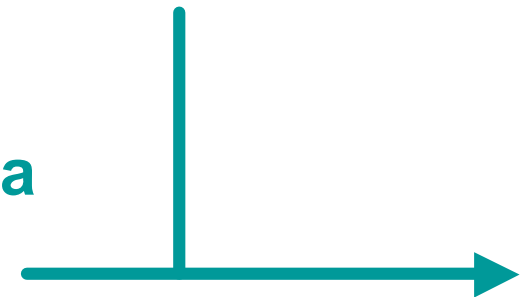


Musym	Calcares	HEL	Hydric
MaB	43.56	NHEL	N
MaD	1.90	HEL	N
Pr	37.01	NHEL	Y
MaD	1.590	HEL	N
MaB	4.93	NHEL	N
MaB	5.58	NHEL	N
Pr	66.61	NHEL	Y
MaD	3.42	HEL	N
CaA	62.17	NHEL	N
MaB	7.41	NHEL	N

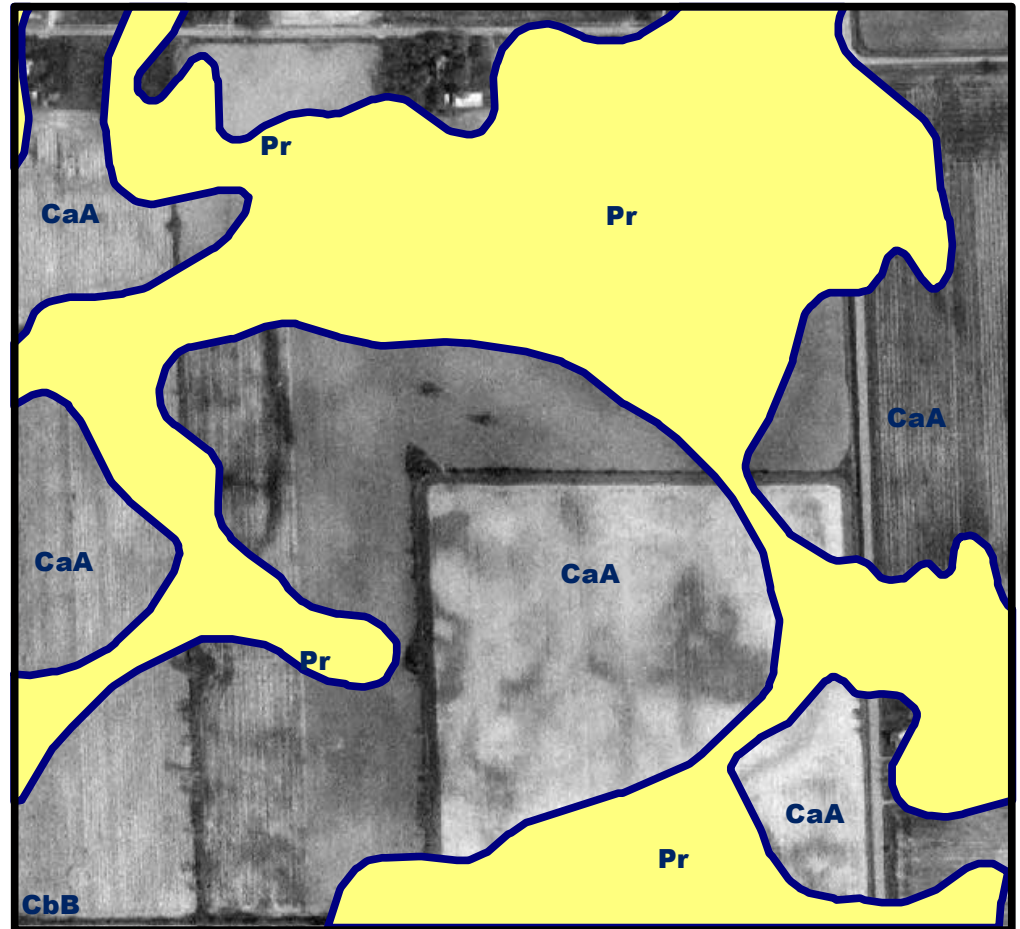
Tabular Data

Soil
Characteristics

What is it ?



Hydric Soils Theme



Musym	Calcacres	HEL	Hydric
MaB	43.56	NHEL	N
MaD	1.90	HEL	N
Pr	37.01	NHEL	Y
MaD	1.590	HEL	N
MaB	4.93	NHEL	N
MaB	5.58	NHEL	N
Pr	66.61	NHEL	Y
MaD	3.42	HEL	N
CaA	62.17	NHEL	N
MaB	7.41	NHEL	N