

Map Use

SE 453

- ▶ When making a map, consider the following questions:
 - What elements need to be included on a map?
 - How should those elements look?
 - How should they be arranged?

Maps are very useful & important to us, How:



- ▶ To understand roads and subways at new places.
- ▶ To calculate distance between two places.
- ▶ To know whether there are two or more paths to the same place and which is the shortest.
- ▶ We can get information about mountains, rivers, valleys or any other thing, which may come on the way, and we can prepare for that.
- ▶ We can get the information like height of the place or ups and downs on the road.
- ▶ Boundaries of the land to define ownership.
- ▶ Places like houses, farmhouses, mines can be shown on the map.
- ▶ We can also mark crops, weather reports, direction of wind, rainfall on the maps.
- ▶ Government needs the map to keep the record of the owners

Map Uses

- ▶ Whether we move on land, at sea, or in the air we rely heavily on maps to plan our routes and to maintain our course.
- ▶ We use these maps to plan our routes and then to navigate when we are in motion.





- ▶ Maps in newspapers accompanying an article or on TV with a report aid in telling the story.
- ▶ Under this category we might include maps that are used to route traffic in specific directions, maps employed to get people to register to vote, and a number of persons select map projections to convey a specific image.

Planning



- ▶ We turn to maps to determine where a communications tower should be located in terms of reception, visual impact, zoning and landuse restrictions.
- ▶ Urban and regional planning rely heavily on maps for the location of schools and public facilities, for the development of highway, sewer and water networks and for the orderly organization of space through zoning and other techniques.

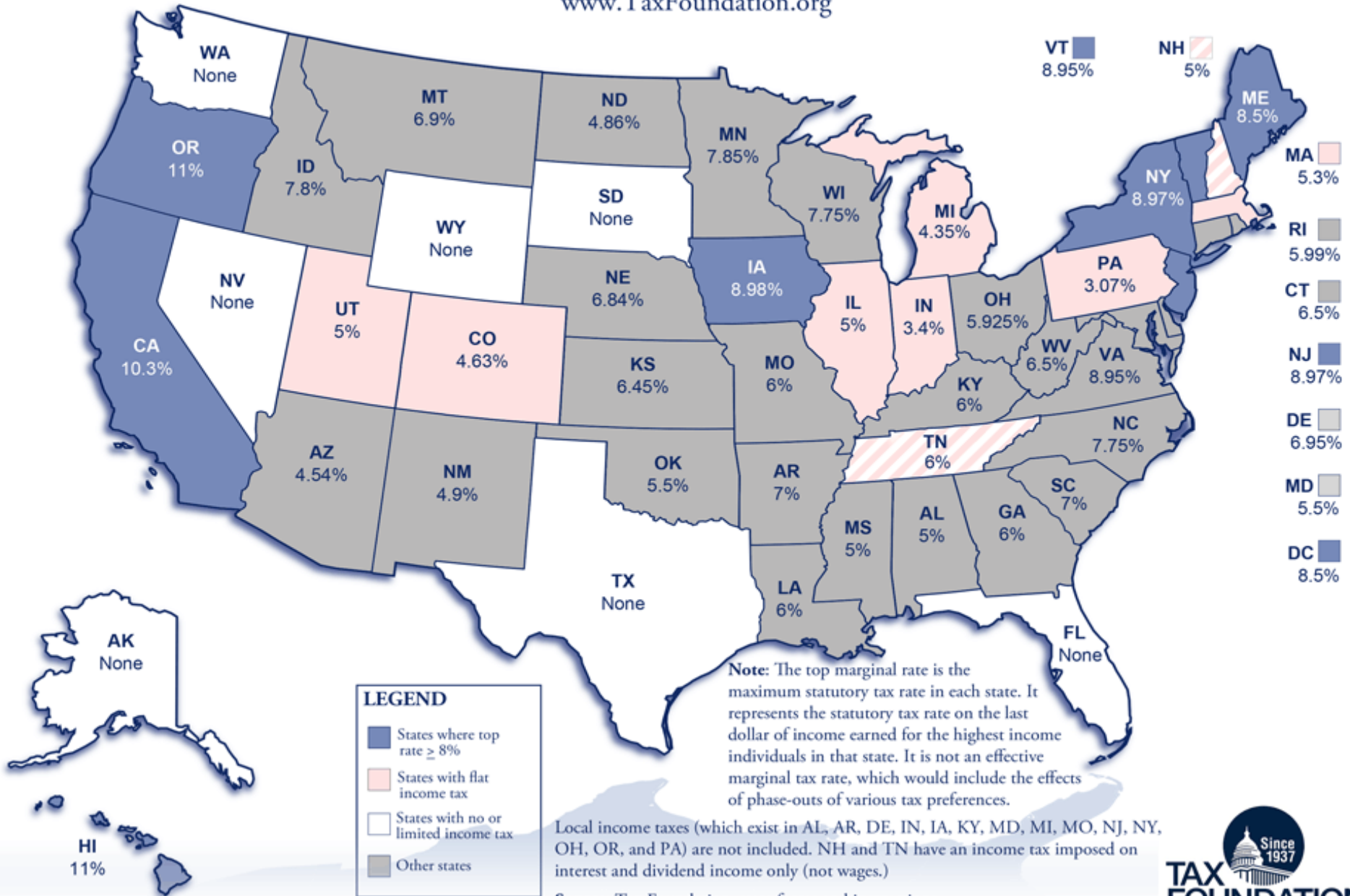


- ▶ Maps are used a legal documents showing the ownership of land and boundaries.
- ▶ Cadastral mapping is that area dealing with the legal systems showing who has rights to property.
- ▶ Taxes are based on property ownership and assessors rely heavily on maps.
- ▶ These maps are permitting indigenous societies to retain rights to their land against outside forces wanting access to resources.

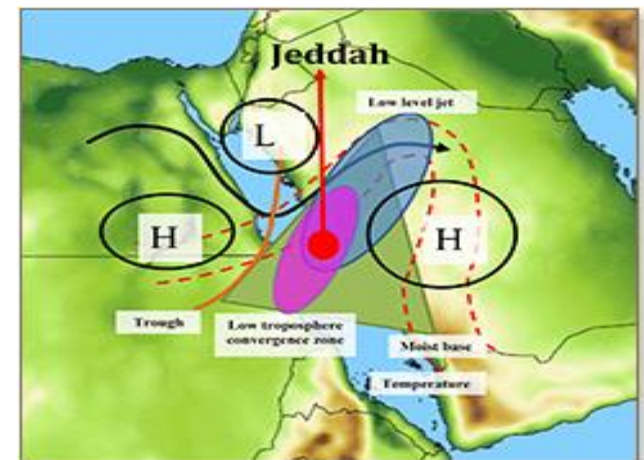
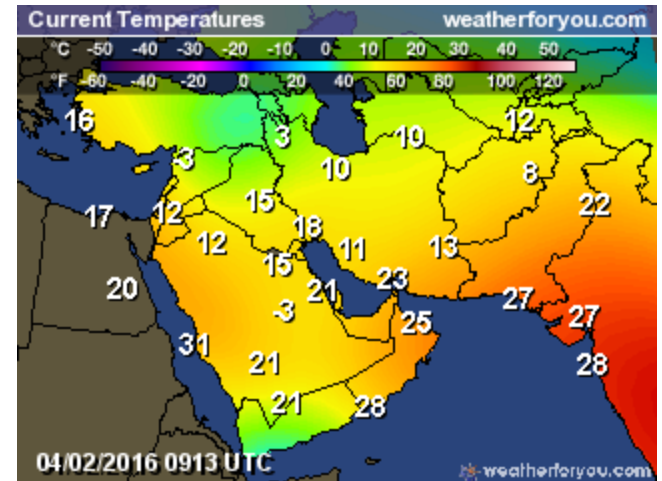
Top State Income Tax Rates

Highest Statutory Marginal Income Rate By State, Tax Year 2011

www.TaxFoundation.org



- ▶ The weathercaster on television is but one component of the use of maps to predict the future of events that play out over the Earth's surface and that have the potential for significant damage to systems important to humans.



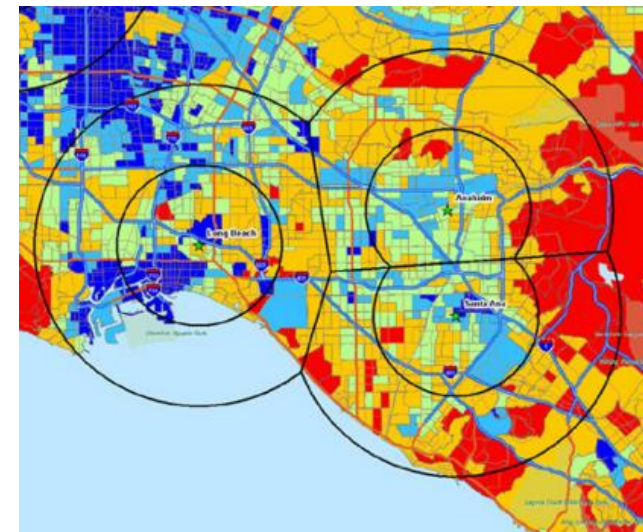
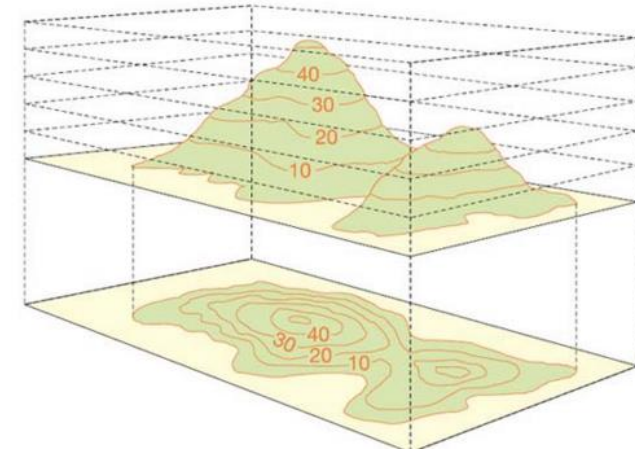
Levels of Map Use

- Reading
- Analysis
- and Interpretation.

- ▶ To read a map, you translate its features into a mental image of the environment.
- ▶ The first step is to identify map symbols
- ▶ The map reader must make a creative effort to translate the world of the map into an image of the real world
- ▶ Much of what exists in the environment has been left off the map, while many things on the map do not occur in reality.



- ▶ To analyze and describe spatial structure and relations.
- ▶ Analysis can be done visually where we use such terms as hilly, steep or dense, or it can be done in the more objectively using quantitative techniques.



- ▶ Analysis gives us descriptions, not explanations or interpretations. Analyzing a map's geometry is designed to facilitate map interpretation, not substitute for it.
- ▶ When map makers show a few features in proper spatial relationship, they allow us to determine all sorts of things--directions, distances, densities, and so on--that they may not have had specifically in mind

- ▶ When you interpret a map you notice unusual or interesting patterns and seek explanations for them, the answers to your questions will not often be immediately obvious.
- ▶ The map can include only enough clues to provide you with touchstones, starting points for discovery.
- ▶ Maps are springboards for the imagination, trigger devices to set you questioning and inspire you to search for answers." "Intuition is an important part of map interpretation, just as it is in interpreting a book, a poem, or a painting."

