Predicting Maine Election Results Based on Voting History from 1864 To 2008

Motivation
The motivation behind the project is driven by two factors. One of the motivating factors was interest in politics generated by the unusual presidential primary season. The other factor was based upon interest in the predicting election results using spatial analysis and historical trend data.

Goal/Questions
There were several geographic questions and most were answered on completion of the project.
* Are there spatial patterns in Maine’s presidential election results and do these change over time?
* On a county level can you predict the outcome of an election by looking at past years voting and the spatial trends from those years?
* How have counties in Maine voted over the past 150 years and based on this voting record?

Literature Review
The project used information from many political coverage websites such as CNN and Fox news. Information was also gathered from the Census Bureau to provide any relevant statistics on all the elections. Several articles reviewed for this project provided a lot of insight on how to polling organizations predict election results. Finally, the State of Maine website (www.maine.gov) was also consulted to also give specific voting process information for the state.

Approach
ESRI’s GIS software, ArcGis 9.2 was used to create a geographic information system to store and analyze data as well as visualize results. Datasets for Maine’s presidential election voting results were acquired through several sources mentioned above and imported into the gis. Shape files were imported to the gis from Maine Office of GIS and joined to election data to the pile of information.

Historical Trends
A series of 35 simple choropleth maps of county level election results were created and finished as layouts. These visualizations were analyzed for historical trends and spatial patterns both at the state and the county levels.

Recent Election Results
These two visualizations (below) represent elections results in Maine after 1990’s as Maine has become a strong Democrat state. The graph represents how Maine voted by county over the past forty years.

In the 1992 Presidential Election, Bill Clinton won as the Democratic candidate, however Ross Perot had a good showing as the independent candidate. Perot did well in Piscataquis, Somerset and Waldo counties with the message that he was trying to save Maine jobs. Perot was the strongest independent candidate in U.S. history.

In 2008, Maine counties voted for John Kerry (D) recent election results by county. Most Maine counties voted for John Kerry (D) in the 2004 election except for Piscataquis and Washington counties. Barak Obama is a stronger candidate than John Kerry so this study felt Piscataquis would go to Barrack Obama but Washington county would stick to its current trend and remain with John McCain in 2008.

Conclusion and Future Work
It is difficult to accurately predict an election by examining previous spatial patterns of presidential elections because the views of the people have changed over time such as how Maine’s voting has changed to a predominantly Democrat state from a historically Republican state. However more research could be conducted at the voting district level to provide greater detail in voting trends at a smaller scale. This could provide more detail needed to make better predictions.

A. Nieuwenhuys and J. Klam, Bangor High School