

# 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 .

## Goals/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.

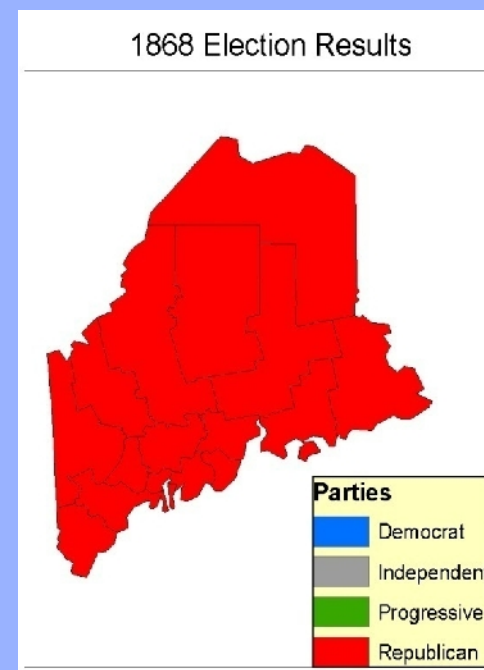
## Approach

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.

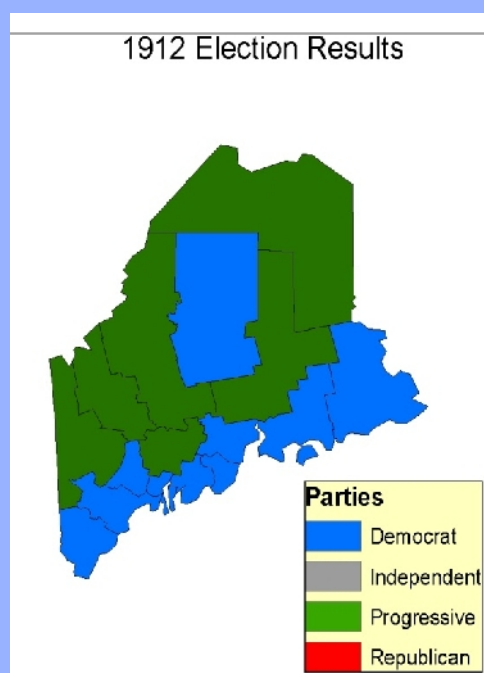
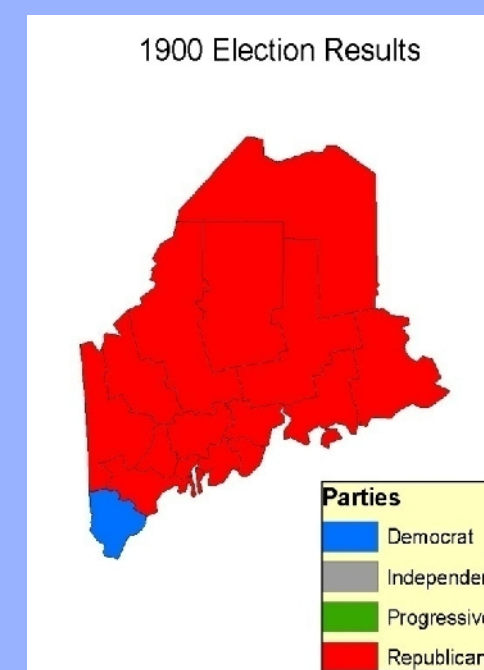
A. Nieuwenhuys and J. Klam, Bangor High School

## Historical Trends

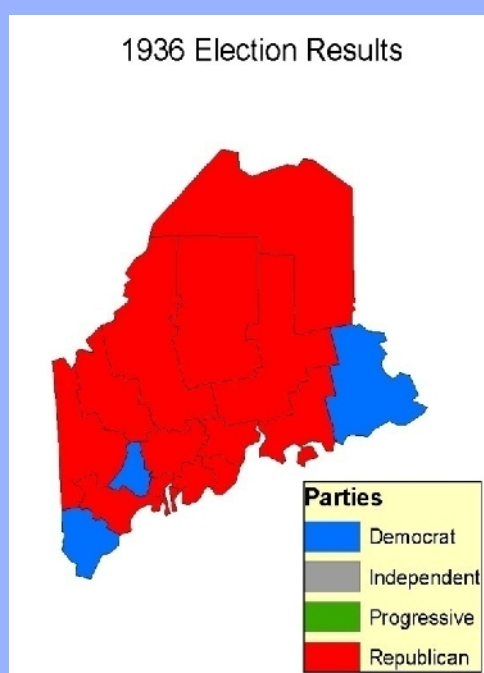
A series of 35 simple choropleth maps of county level election results were created and finished as layouts. These visualizations were analyzed for historical trends and spatial patterns both at the state and the county levels.



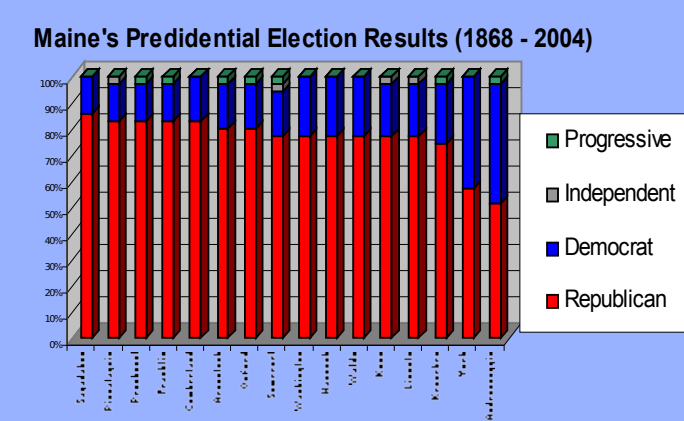
The maps (left and right) were typical election results in Maine before the 1900s because most of the electorate were rural, white males.



In 1912, Woodrow Wilson, a Democrat, won the State of Maine and subsequently the United States (left). He won because Teddy Roosevelt, running as the Progressive candidate, took more than half the Republican votes from William Taft. Because of this split of the Republican vote, Woodrow Wilson came out ahead.



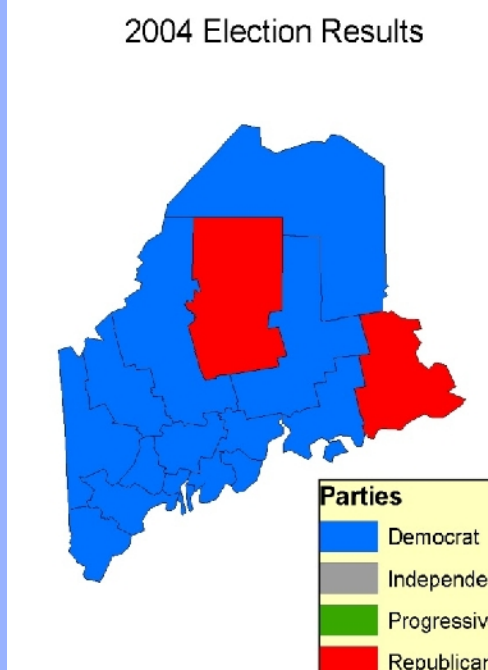
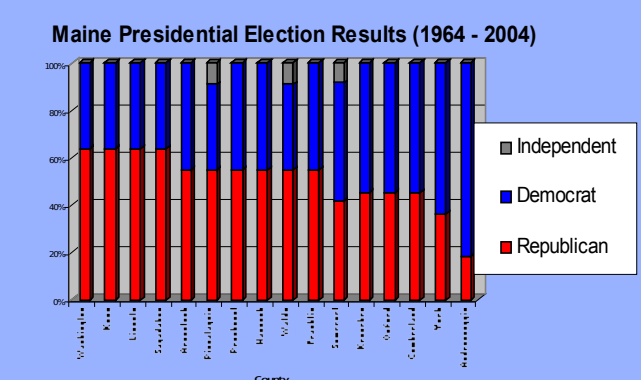
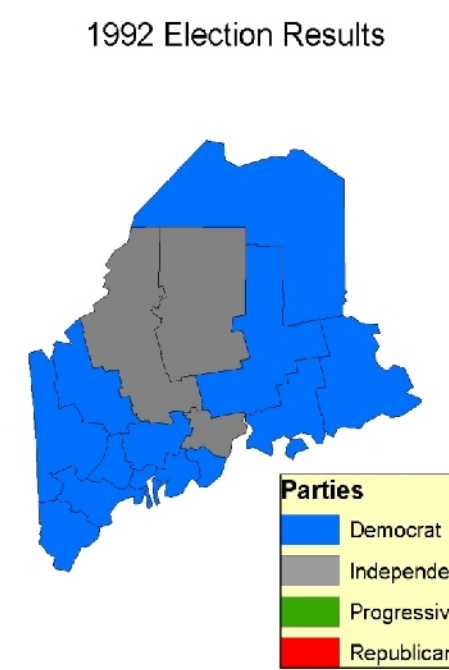
In 1936, during the Great Depression, Alf Landon, a Republican, led in only two states, Maine and Vermont. It is interesting to note that two counties representing very different populations, York and Washington, voting results bucked the trend for the rest of the state. (left).



Maine's total voting results to not show strong spatial trends although York and Androscoggin counties have voted for the Democratic presidential candidate more consistently than the rest of the state.

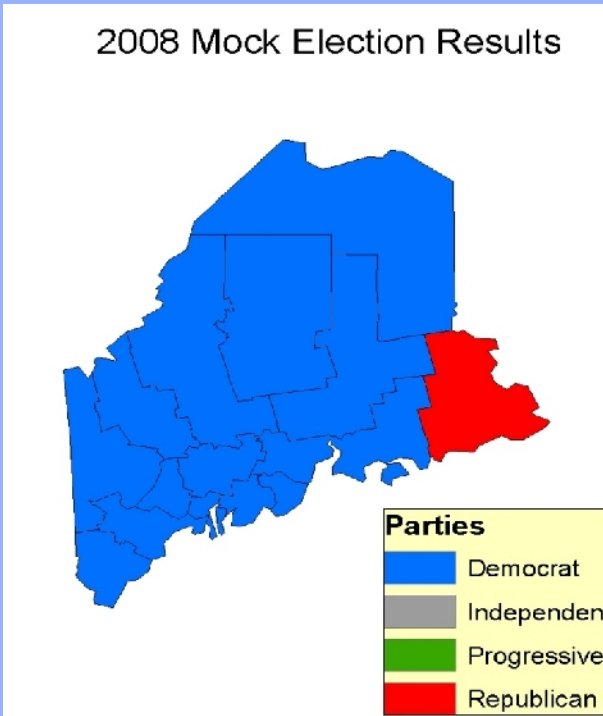
## Recent Election Results

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.

The predictive map (right) shows Barack Obama (D) beating John McCain (R). This prediction is based on recent election results by county. Most Maine counties voted for John Kerry (D) in the 2004 election except for Piscataquis and Washington counties. Barack Obama is a stronger candidate than John Kerry so this study felt Piscataquis would go to Barack 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 had change 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.