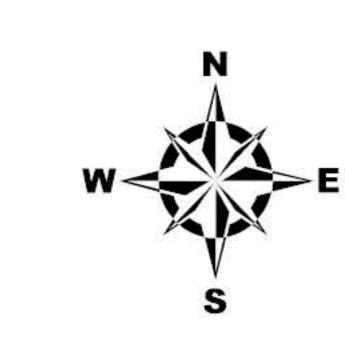
# MODELING CHILD ABUSE TO EVALUATE LOCATIONS OF THE DEPARTMENT OF YOUTH AND FAMILY SERVICES

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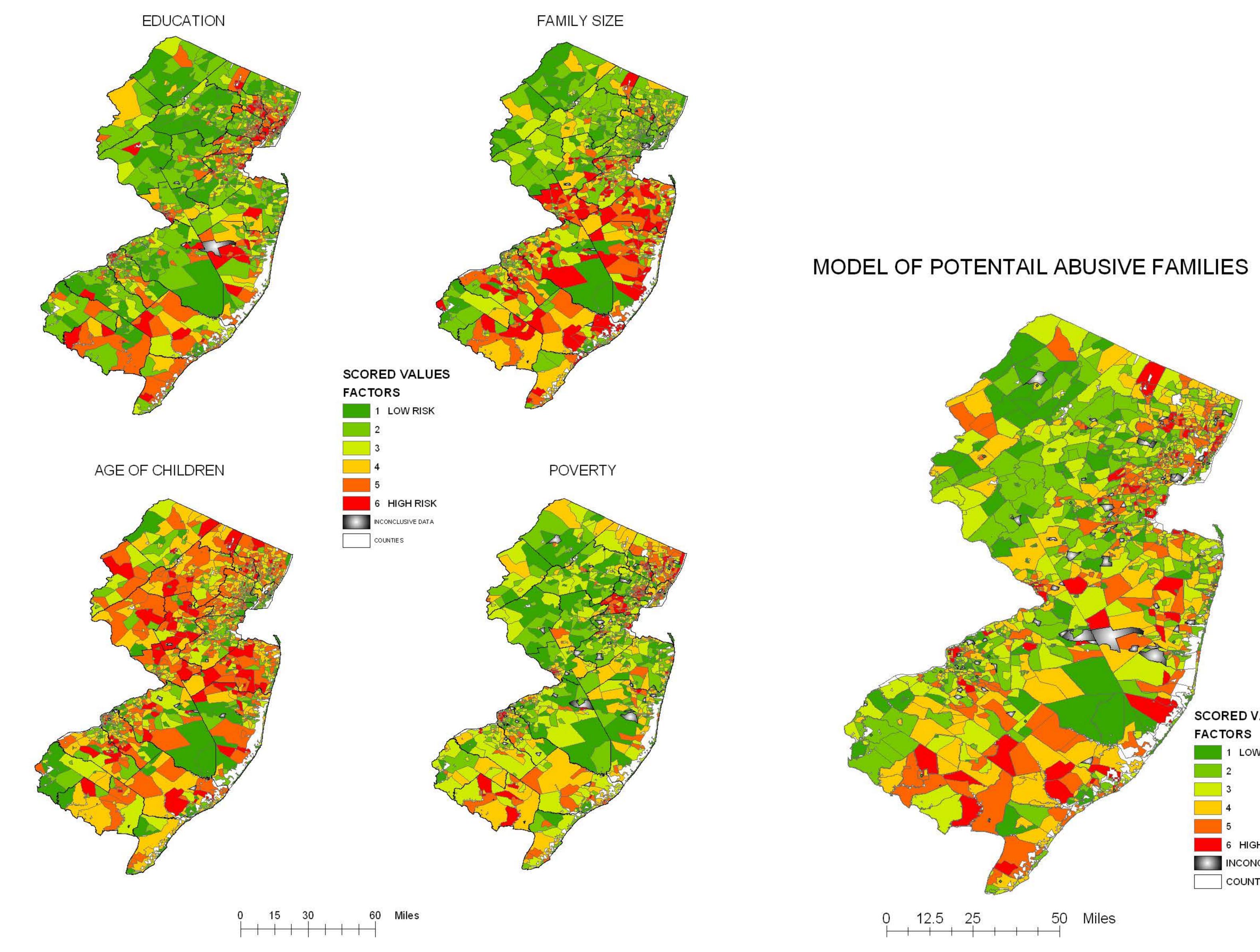
### ABSTRACT

This project was conducted to determine if DFYS offices are in suitable locations, that are capable of satisfying the needs of New Jersey's at-risk children. The two main components of the project are, a model of New Jersey's high-risk child abuse areas, and the locations of DYFS offices. The goal of this project is to determine if location is one of the factors for the system failure, and if so to make recommendations for further research for relocating offices into high-risk areas.

### INTRODUCTION

The Division of Youth and Family Services is developing a new system to correct the breakdowns within the current system. The department states that the problem is caused by their tremendous workload and limited funds. I believe that one of the problems could be that the locations of the offices are not in close proximity (15 miles) to high-risk areas.

#### FACTORS THAT INFLUENCE ABUSE AND NEGLECT



## OBJECTIVES

The objective for this project is to model areas that have the highest density of parents that abuse and neglect children. The second objective is to determine what area the DYFS offices can effectively service.

# METHODOLOGY

Modeling for potential high-risk areas starts by determining what factors are attributed to the production of abusive and neglectful parents. Efforts to develop a decisive profile were unsuccessful when DYFS disregard e-mails and phone calls on this controversial subject; as a result the model relies on educated assumptions to create the profile. Based on available data from GeoLytics software (2000 censes), four key factors were chosen and weighted, then calculated into a scored value system. The four factors chosen were; families in poverty, parents with education less than completion of high school, the numbers of children in the population, and the number of children in a family. The calculated score of family poverty was derived by extracting four classifications of family poverty; married parents, parents other than relatives, single mothers and single fathers. The sub-factors were then weighted from lowest to highest increasing by 25% respectively then summed to produce a scored value. The value of parental education consisted of parents with; non-completion of high school, middle only, elementary only and no education. The sub-factors were calculated using the same process as above. The score value of the number of children in the population used the same method of weighting with sub-factors of children from ages; 17-15 years old, 14-10 years old, 9-5 years old and 4-0 years old. The number of children per family factor consists of three sub-factors; families with 2 children, 3 children, and over 4 children. The system for weighting is based on a 30% increase respectively. All of the calculations above were preformed in the tables of shape files in ArcMap. The resulting 4 shape files were then converted into raster format to be reclassified (Jenks Natural Breaks) into a 1 to 10 rating system (simplified for display to 1 to 6). To generate the High-Risk of Child Abuse and Neglect map the 4 scored factors were input into raster calculator using the equation below.

(Education score \* 2.25) + (Poverty score \* 1.75) + (Family size score \* 1.5) + (Children age score \* 1)

The rational for weighting the factors is as follows; individuals who do not complete school display a failure to take responsibility. Poverty could be an indicator for family problems that may lead to abuse and or neglect, for example, parents struggling to pay bills may work long hours leaving the children home alone for long periods of time. Family size is important because the more children in the family the harder it may be to satisfy the many needs of a child. The children population and age carries the least weight but is still a crucial factor that is a measure of the time parents need to spend with there children. The younger the child the more time is needed to properly raise them, and for some one that can't finish high school, or for the hard working parents in poverty this lack of time may lead to neglect or abuse.

## RESULTS

The results map demonstrates that The Department of Youth and Family Services can eliminate location as a major contributing factor in a large northern segment of New Jersey. In central and southern New Jersey the DYFS offices are more stretched out, creating weak areas within the system.

In conclusions, a large percentage of New Jersey's children are adequately protected by the department. It's also apparent that DYFS must address the relatively large portions of high-risk area not within the effective range of DYFS. Further research would determine the best course of action, whether it would be establishing new locations or relocating existing offices based on more comprehensive factors.

CONCLUSION

#### POTENTIAL AREA FOR FURTHER RESEARCH

