

# The Outdoor Latino Learning Initiative (OLLI): Connecting Latino Youth and Communities in South Texas to Natural Resource Education, Stewardship, and Nature-Based Opportunities

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## INTRODUCTION

- Ethnic diversity in natural resource fields is more limited than many other disciplines.
- Little effort has been invested in outdoor programs targeted to diverse youth at all educational levels.
- It is imperative to inspire an interest in conservation issues and educational and career paths in natural resource conservation and management.
- Several locations in the U.S. with majority-minority populations are an untapped resource of potential recruitment.



Figure 1. Summer Camp at Sabal Palm Sanctuary, Brownsville, TX. Photo Credit: Sabal Pams Sanctuary

## WHY SOUTH TEXAS?

- The Rio Grande Valley (RGV) is home to a population of more than 1.3 million, most of which are Latino (Figure 7).
- There is a lack of public knowledge about forestry or natural resource education and careers.
- There are 525 schools from all grade levels in the RGV (Figure 8).
- Efforts are needed to promote healthier lifestyles in a population with a rate of diabetes that is twice that of the rest of Texas.
- Efforts are needed to help improve the socioeconomic status of region through recruitment and implementation of conservation and stewardship projects.

Figure 2. High school outreach at UT-Brownsville, TX. Photo Credit: Liana Lerma



## THE APPROACH

- Use GIS modelling to determine which areas are more suitable for recruitment efforts, based on parameters, such as graduation rate, health concerns, and Latino population data.
- Recruit neighboring and other interested organizations/institutions for a joint approach.
- Contact educational systems most suitable for recruitment efforts and propose program options.
- Write grant proposals for execution of new conservation projects, curriculum use, and campus renovations.
- Train teachers via Project Learning Tree on how to implement natural science into their curriculums.
- Visit students and show them the possibilities of working in forestry and natural resources fields.

## OBJECTIVES

- Increase Latino recruitment in forestry by educating youth about conservation issues and natural resource opportunities.
- Provide Latino youth with the tools and skills needed to make a difference in their schools, communities, and beyond.

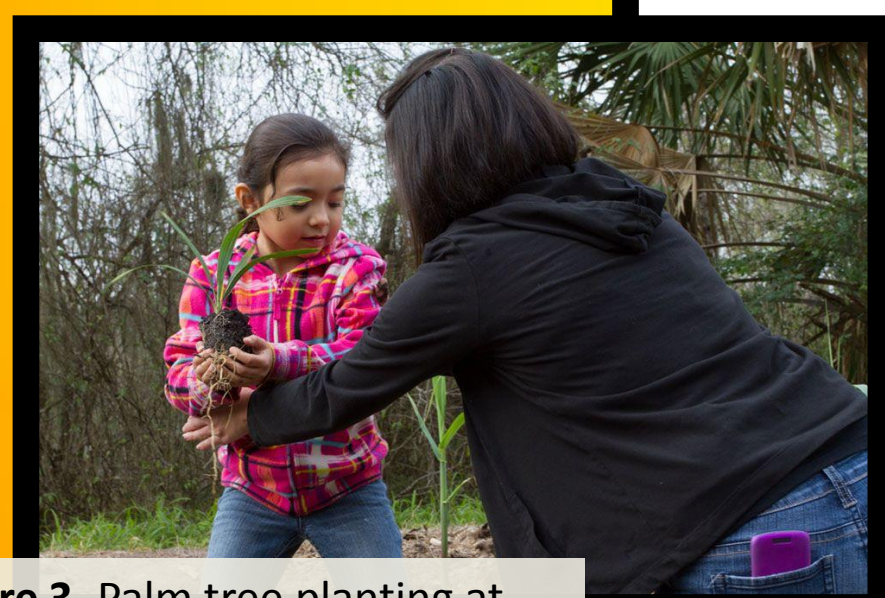


Figure 3. Palm tree planting at Sabal Palm Sanctuary. Photo Credit: Sabal Palm Sanctuary



Figure 6. Map of lower Rio Grande Valley, South Texas



Figure 4. GreenSchools! Fruit Tree planting for Lantrip Elementary School, Houston, TX.



Figure 5. GreenSchools! presentation for Latin-dominant elementary school. Photo Credit: Nalleli Hidalgo

## POTENTIAL ORGANIZATIONS



Percentage of Hispanics by County in South Texas

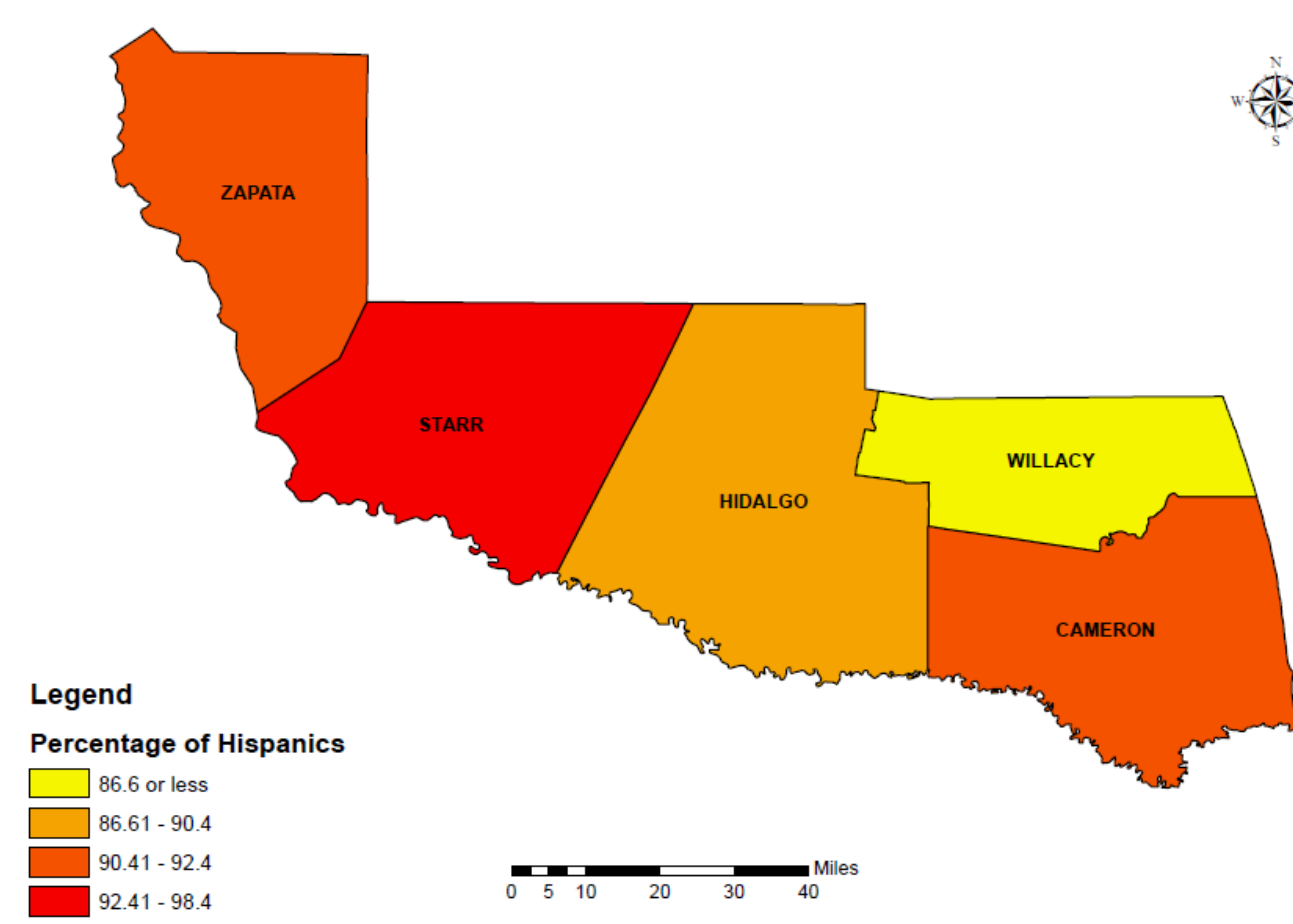


Figure 7. Percentage of Hispanics by County in South Texas.

A binary model was created via ArcGIS (Figure 9), based on the parameters seen in Table 1. The model will indicate which county is most suitable for outreach programs.

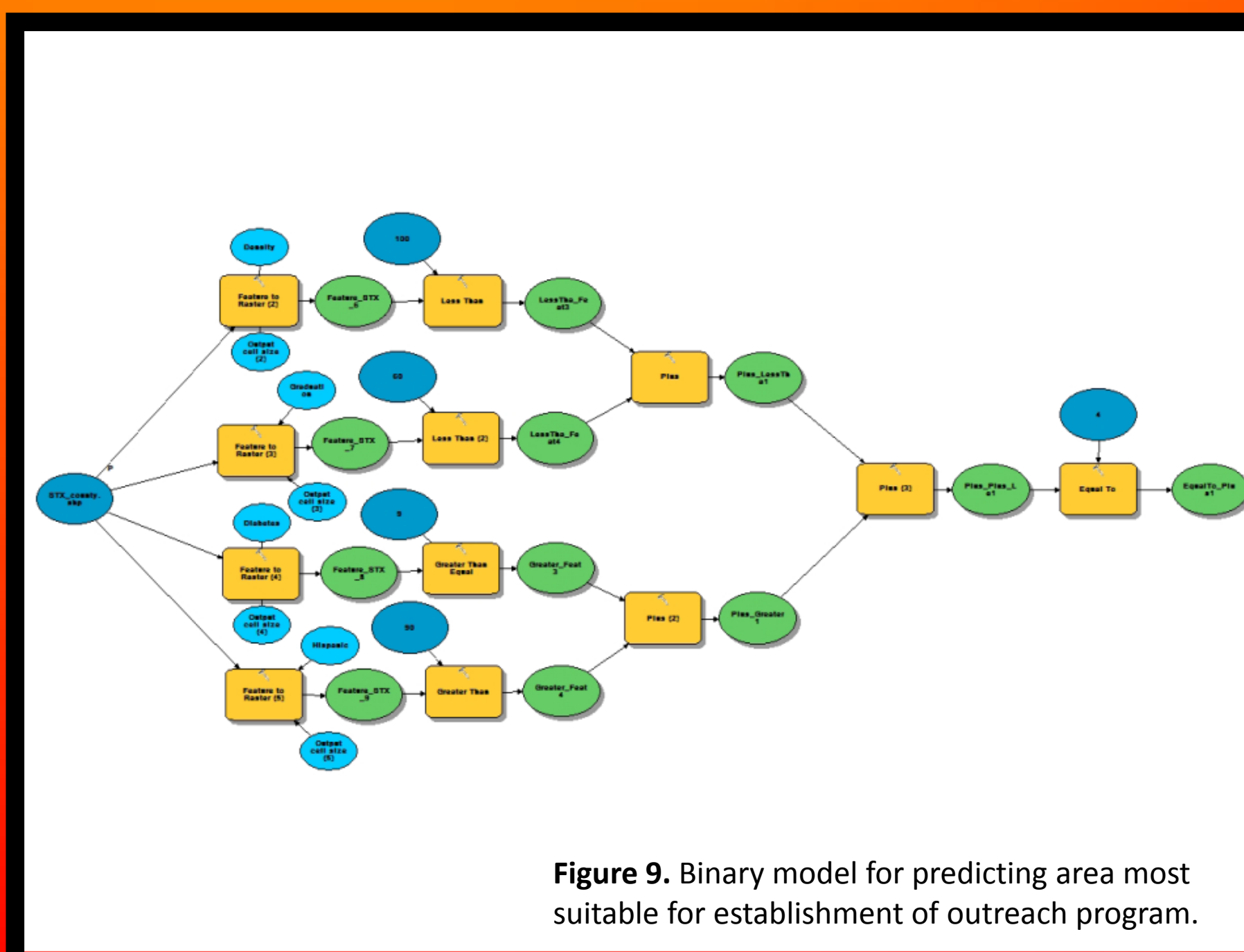


Figure 9. Binary model for predicting area most suitable for establishment of outreach program.

## CONCLUSION

- Starr County is most suitable for outreach efforts based on the parameters analyzed (Figure 10).
- The same model will be used to determine which district within Starr county will be selected.
- Once a program is established, teachers will undergo Project Learning Tree training and the school will apply for GreenSchools! grants.
- Expansion of the project will slowly broaden to the rest of the Rio Grande Valley.

Educational Systems Found in South Texas

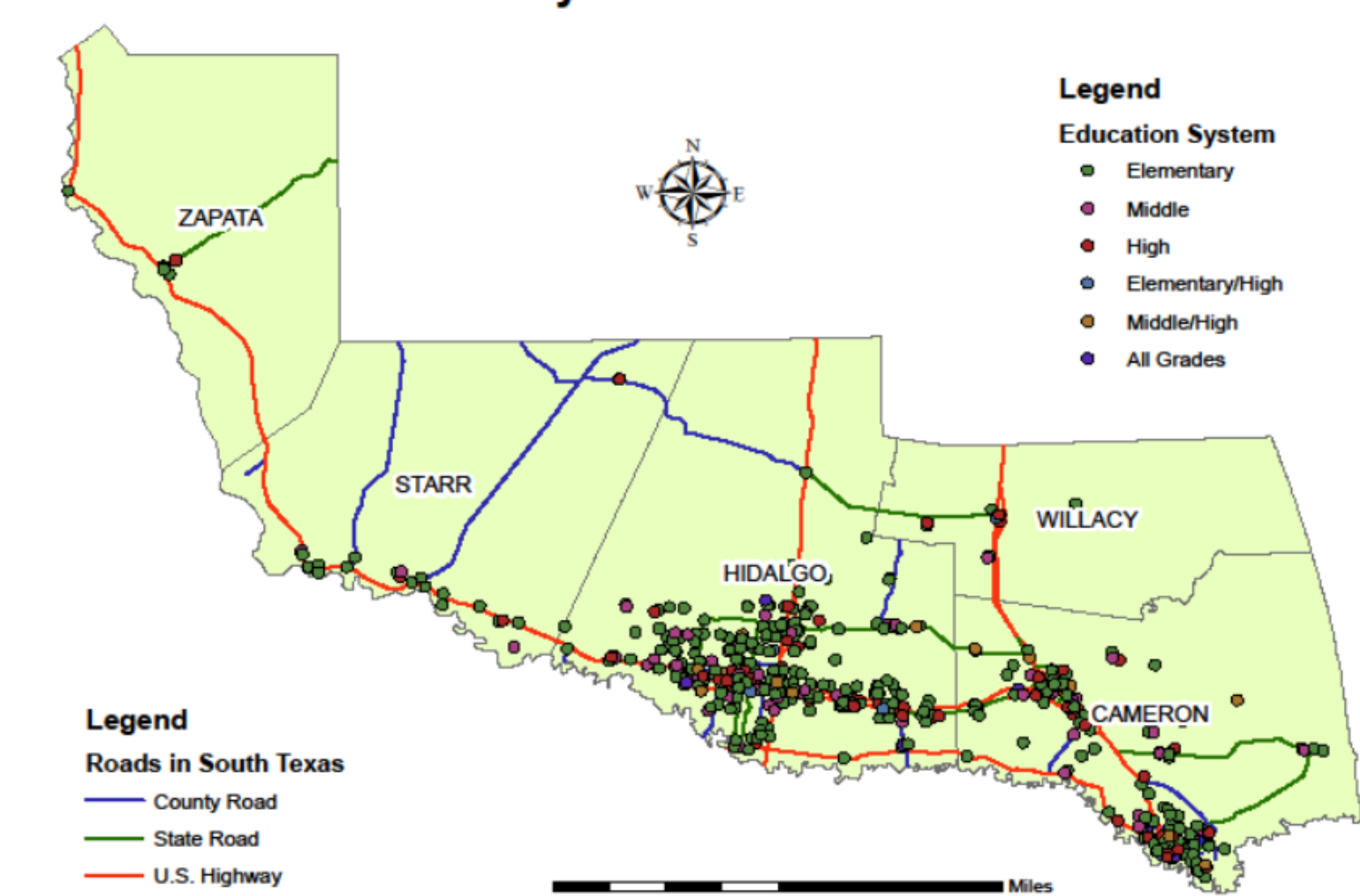
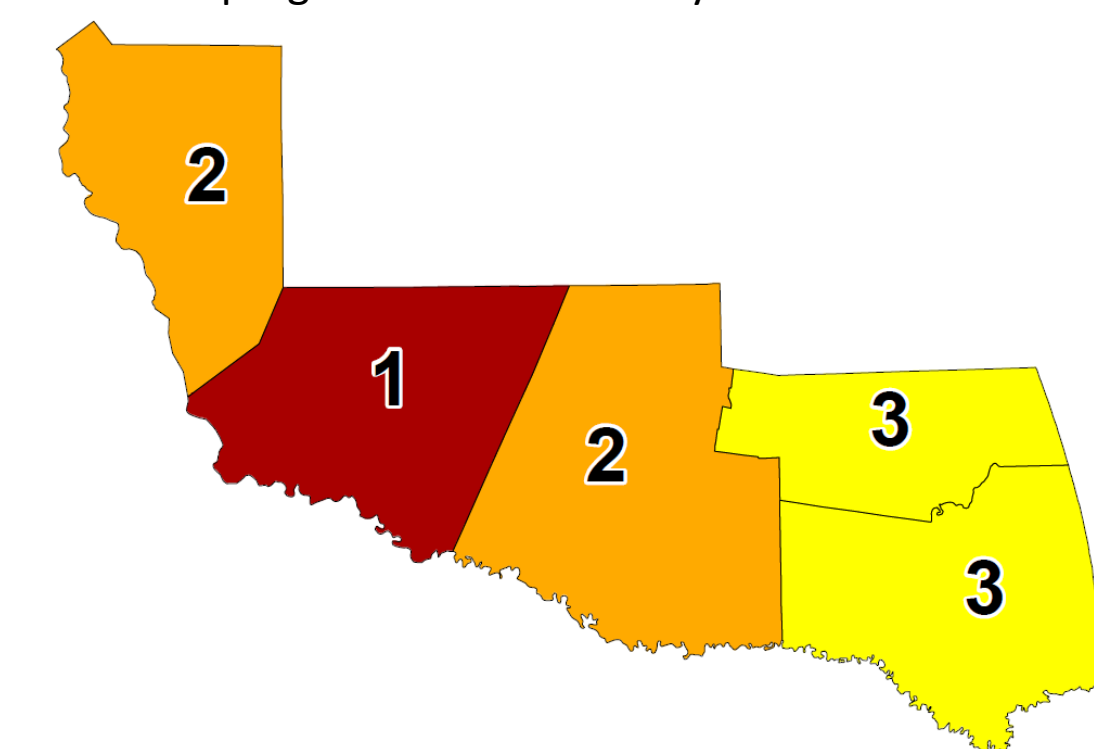


Figure 8. Schools in the Rio Grande Valley, Texas.

General conditions analyzed	GIS variable	Refined model criteria
High population of underserved Hispanics	Hispanic population (%)	> 90% prevalence
Rural conditions affect care availability	Population density (people/ha)	< 100 people/ha
Prevalence of preventable disease	Rate of diabetes (%)	≥ 9%
High levels of at-risk young people	Graduation rate (%)	< 60%

Table 1. Parameters used for binary model

Figure 10. County most suitable for establishment of outreach program based on binary model.



## ACKNOWLEDGEMENTS

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