

# FASOMGHG Agriculture Sector Databasing and Visualization of Model Output

2020 Internship Showcase

Caroline Patterson

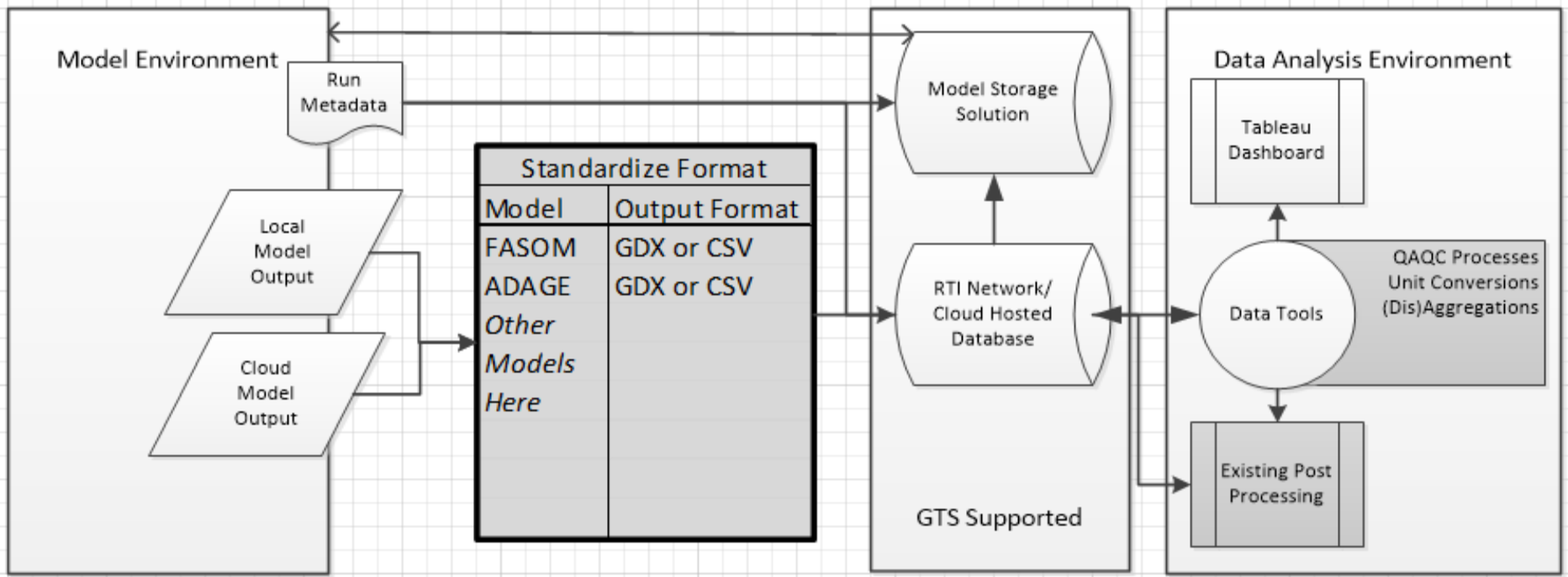
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# Project Description: Building a Data Visualization Tool in Tableau to Display Agriculture Scenarios





# Modeling and Design

- Forest and Agricultural Sector Model (FASOMGHG) scenarios
  - Land use change
  - Carbon pricing
- Inputs/data
  - Agriculture
  - Markets
  - Land

This model addresses many different issues.

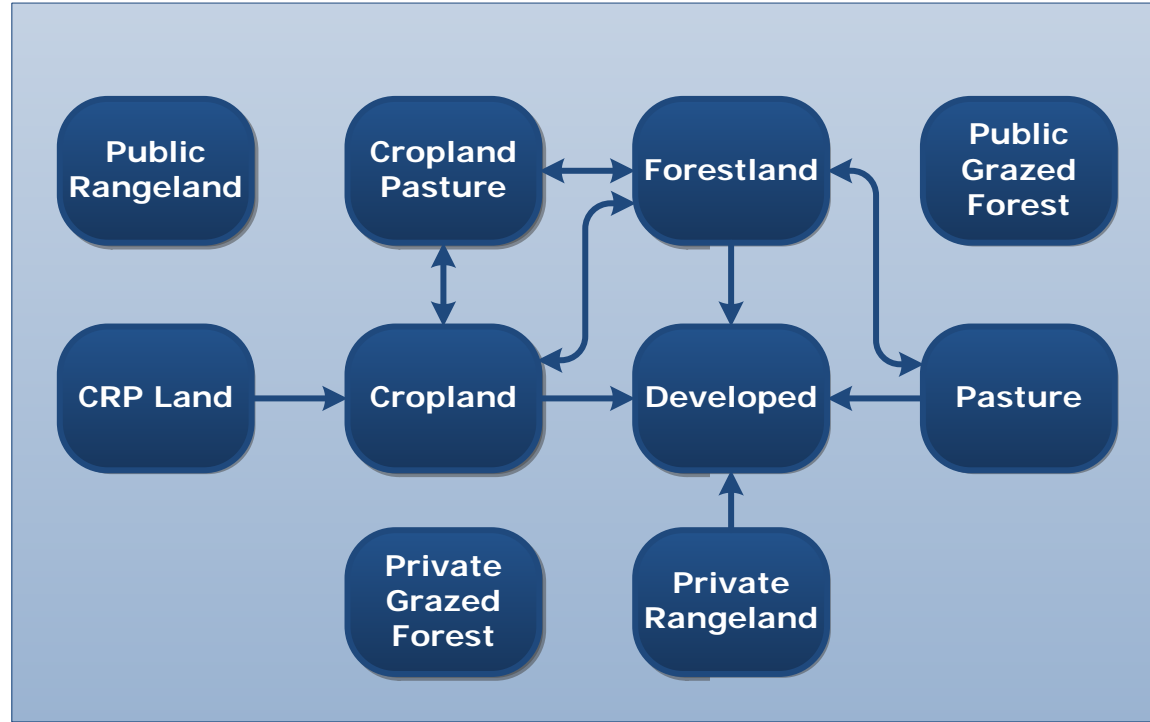
## Markets

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# Land Use Change Scenario

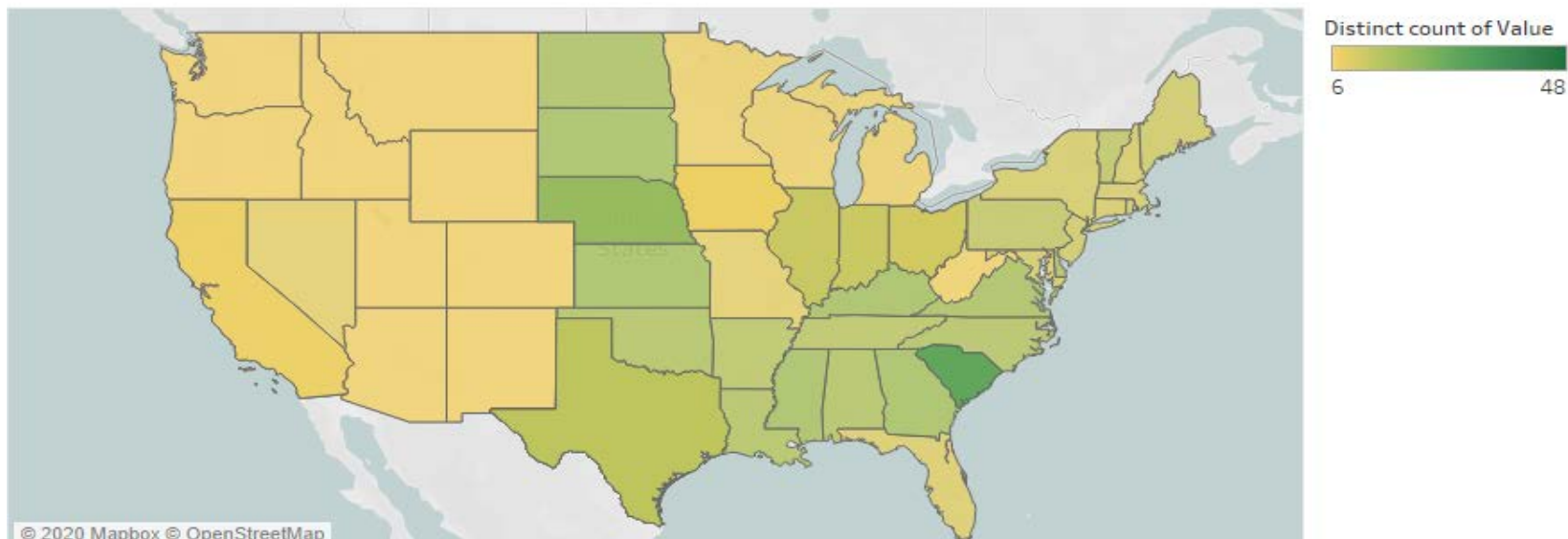




# Agriculture Mapping

## Demand of Agriculture in a Growing Population

Agriculture Land Use Change

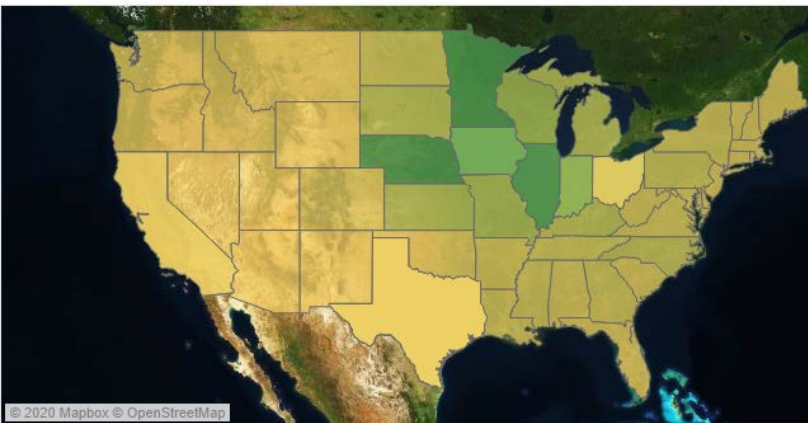




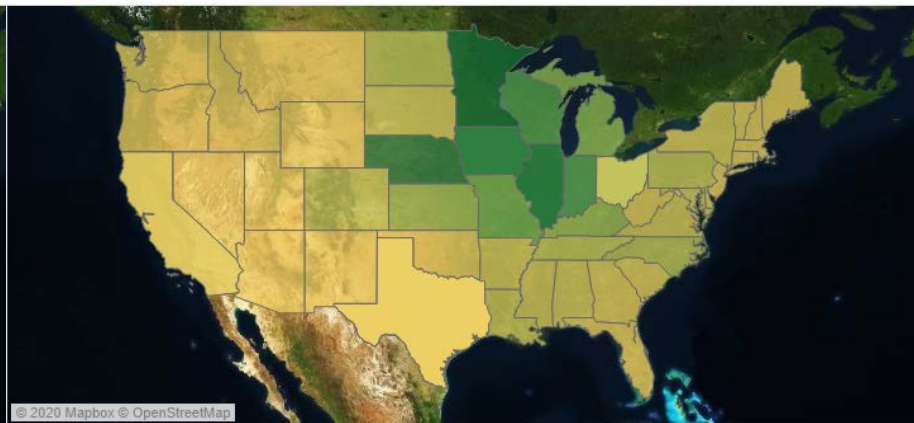
# Corn Production in 2015 versus 2055

## Potential Increase in the Biofuels Market

Agriculture Corn Production



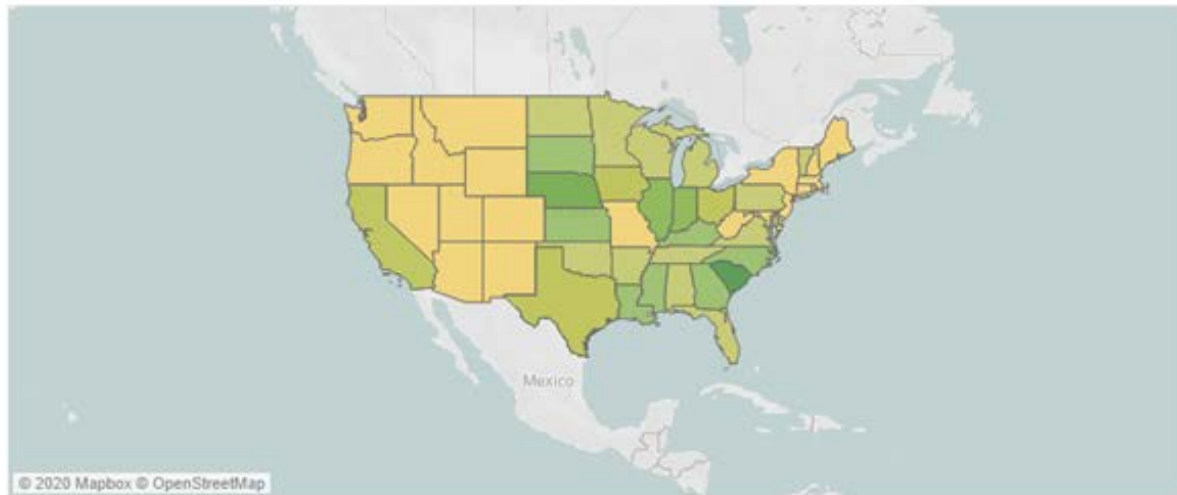
Agriculture Corn Production



3,000 36,000,000

# Dashboard and Results

## Agriculture Land Use Change



Distinct count of Value  
2 7

Dim2  
All

Dim1 (group)

- All Pasture Sent to de..
- Cropland Developed fr..
- Cropland Moved from ..
- Cropland Pasture Sen..
- Other

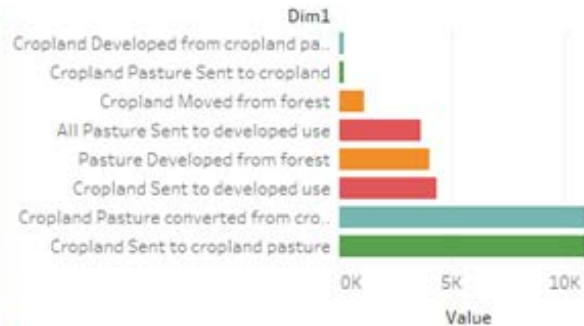
Dim1 (group)

- All Pasture Sent to de..
- Cropland Developed f..
- Cropland Moved from..

## Land Use Change by 2055



## Land Use Change in 2055



# Acknowledgments

**Jason Jones**  
**JasonJones@rti.org**  
Senior Research Economist





# Sources

## Getty Images:

- <https://www.gettyimages.com/detail/photo/harvesting-a-wheat-field-dust-clouds-royalty-free-image/1002377768?adppopup=true>
- <https://www.gettyimages.com/detail/photo/green-wheat-field-swaying-in-the-breeze-under-a-royalty-free-image/182719058?adppopup=true>

## Paper References:

- Jones, J. P. H., Cai, Y., Baker, J. S., Latta, G. S., Wade, C., & Aramayo Lipa, L. (2018). Estimating U.S. GHG mitigation potential with FASOMGHG 2.0. International Society of Forest Resource Economist Annual Meeting, Gatlinburg, TN.



# Thank you

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