

Bringing Economics to Life: GIS in the Classroom

Ian Lyons
Albemarle High School
ilyons@k12albemarle.org

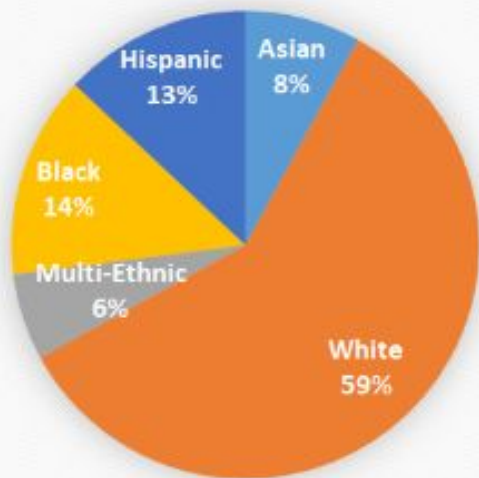
[Click for FREE ESRI GIS Intro Course](#)

Follow Along! <https://bit.ly/2GhWe0n>



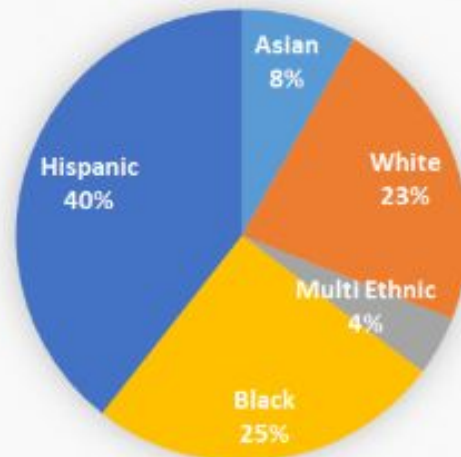
My Perspective

ALBEMARLE HIGH SCHOOL
DEMOGRAPHICS 2017



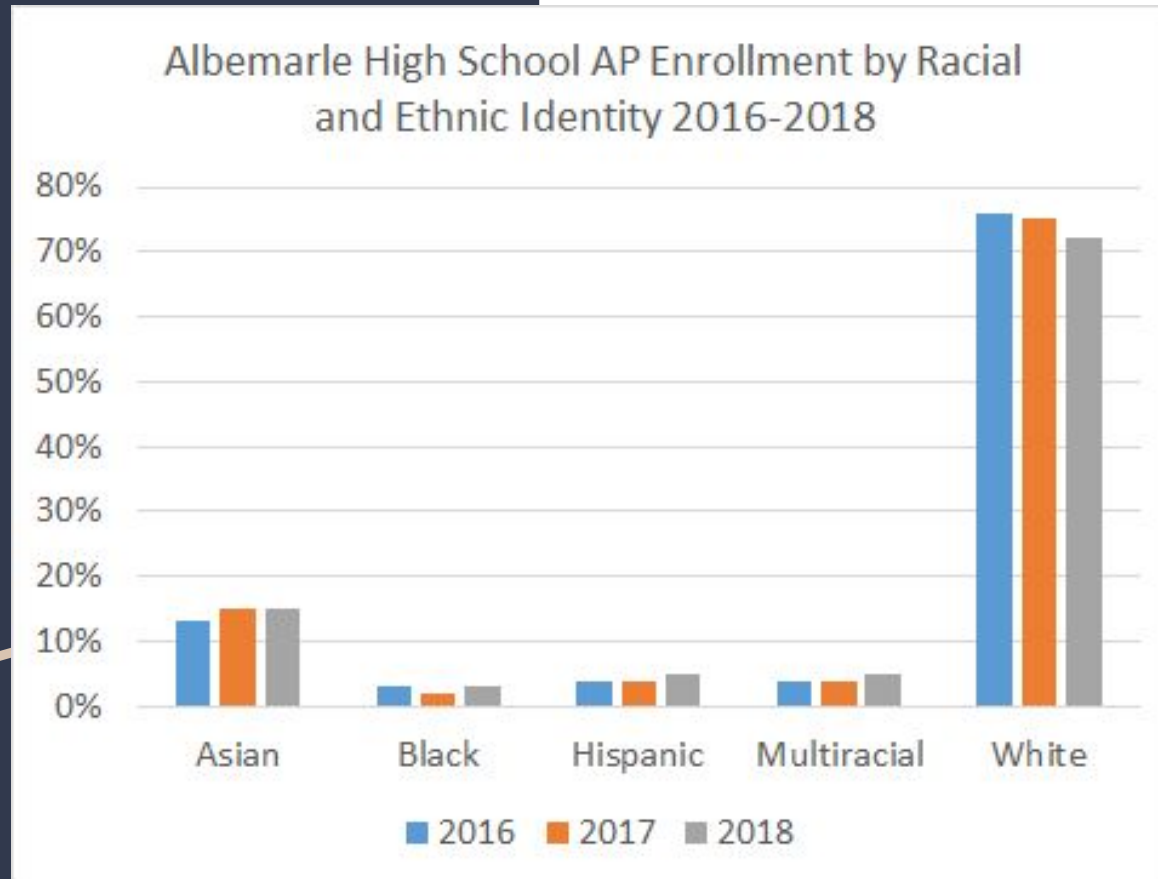
■ Asian ■ White ■ Multi-Ethnic ■ Black ■ Hispanic

ALBEMARLE DEMOGRAPHICS OF ALL STD
LEVEL CLASSES 2017



■ Asian ■ White ■ Multi Ethnic ■ Black ■ Hispanic

Equity and Engagement





JAMESTOWN to APPOMATTOX



*Mapping US History
with GIS*

BY CHRIS BUNIN & CHRISTINE ESPOSITO

Could we collectively create something similar for economics? (Carte Diem Press)

What is GIS? (Geograph

- GIS is a framework to collect, map, and analyze data. If you can collect data, then you can find a way to map nearly anything.

John Snow - London, 1854.

“The First GIS Map”

GIS Story Map



The Titanic – Data Collection

- Is there more to the story of the Titanic? What conclusions can we make based on the data?
- The “dots” on the map are equivalent to a row in Excel by using a [data table](#).
- Another [Story Map](#) brings this to life.

List of *Titanic* Passengers

First class

Name	Age	Hometown	Boarded	Destination	Lifeboat	Body
Allen, Miss Elizabeth Walton	29	St. Louis, Missouri, USA	Southampton	St. Louis, Missouri, USA	2	
Allison, Mr. Hudson Joshua Creighton	30	Montreal, Quebec, Canada	Southampton	Montreal, Quebec, Canada		135 th
and chauffeur, Mr. George Swane ^[2]	19	Montreal, Quebec, Canada	Southampton	Montreal, Quebec, Canada		294 th
and cook, Miss Anrelia Mary "Mildred" Brown ^[2]	18	London, England	Southampton	Montreal, Quebec, Canada	11	
Allison, Mrs. Bessie Waldo (née Daniels)	25	Montreal, Quebec, Canada	Southampton	Montreal, Quebec, Canada		
and maid, Miss Sarah Daniels	33	Montreal, Quebec, Canada	Southampton	Montreal, Quebec, Canada	8	

Geo-Inquiry: What's The Range?

A Geo-Inquiry is a quick, 15 minute interactive lesson that not only teaches content but exposes students to the capabilities of GIS.

[What's The Range?](#)

[Geo-Inquiries Collections](#)



Student Feedback

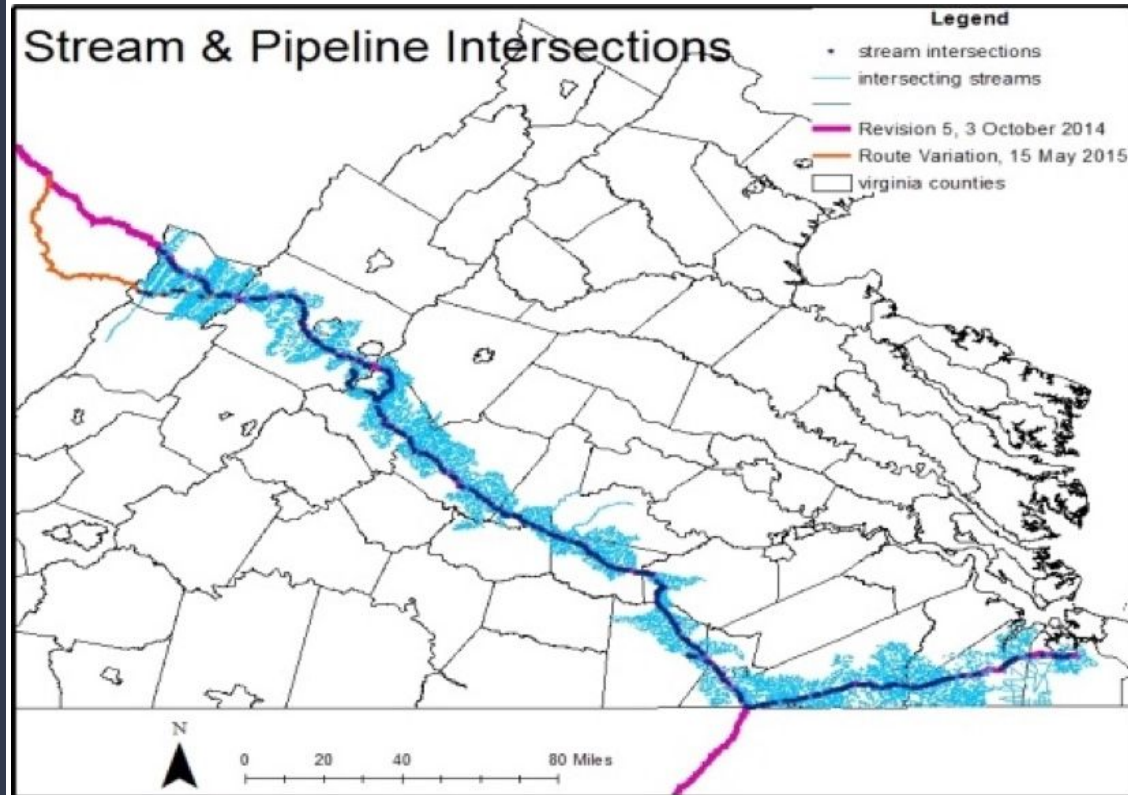
“You wouldn’t think that one software program can access and show so many different things,” says Taylor Holt. “It’s gained my attention completely, and I just want to do it all the time.”

“I don’t necessarily plan to go into GIS, but I’ve definitely developed a love for this class,” says Claire Mills. “People like to look at visual things instead of being told, and a map provides a picture that can be explored.”

“What I like about GIS is not the mapping part,” says Mary Davis; “[instead],” she added, “it’s the application to make other areas of study more efficient and successful.”

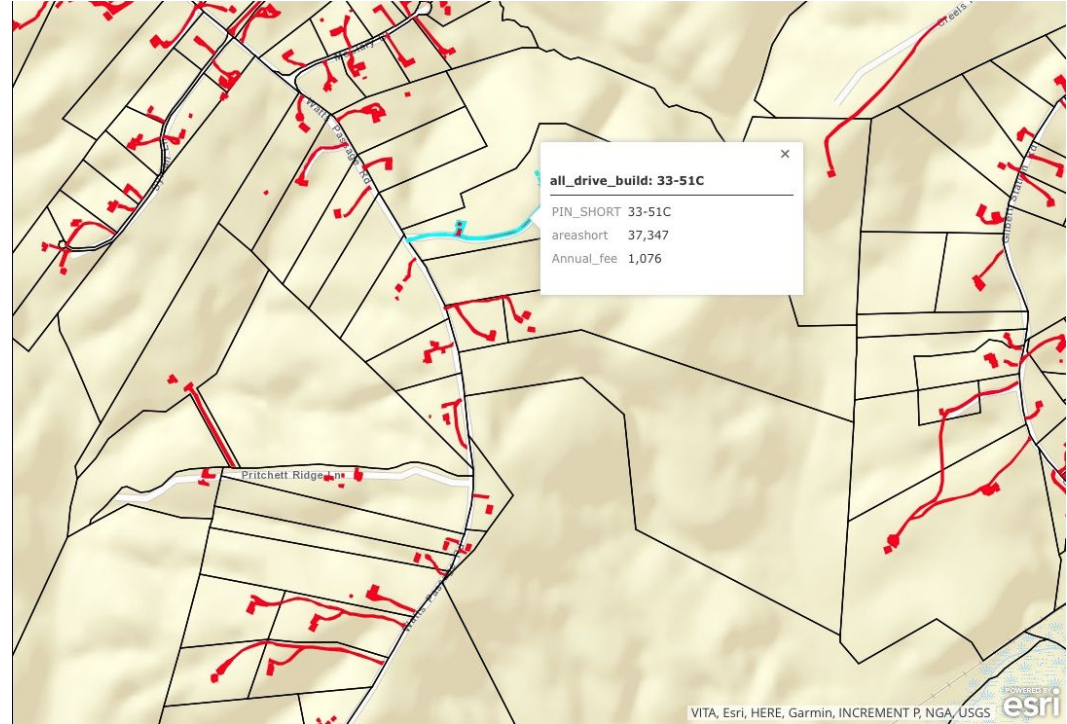
Student Products #1

One student worked with environmental groups to find correlations between the proposed Atlantic Coast Pipeline, the socio-economic make-up of the communities impacted, and where the pipeline crosses bodies of water.



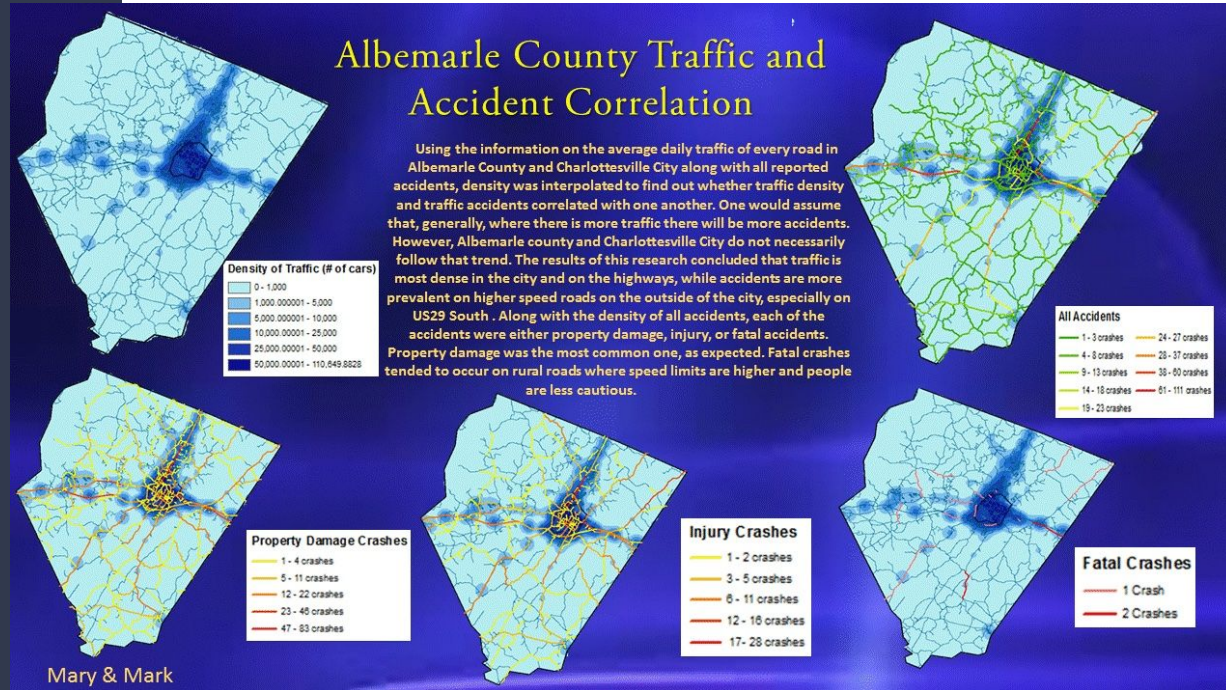
Student Products #2

Another student worked on mapping impervious surfaces in the City of Charlottesville who enacted a tax in 2013. Residents could find their parcel and determine their tax burden.



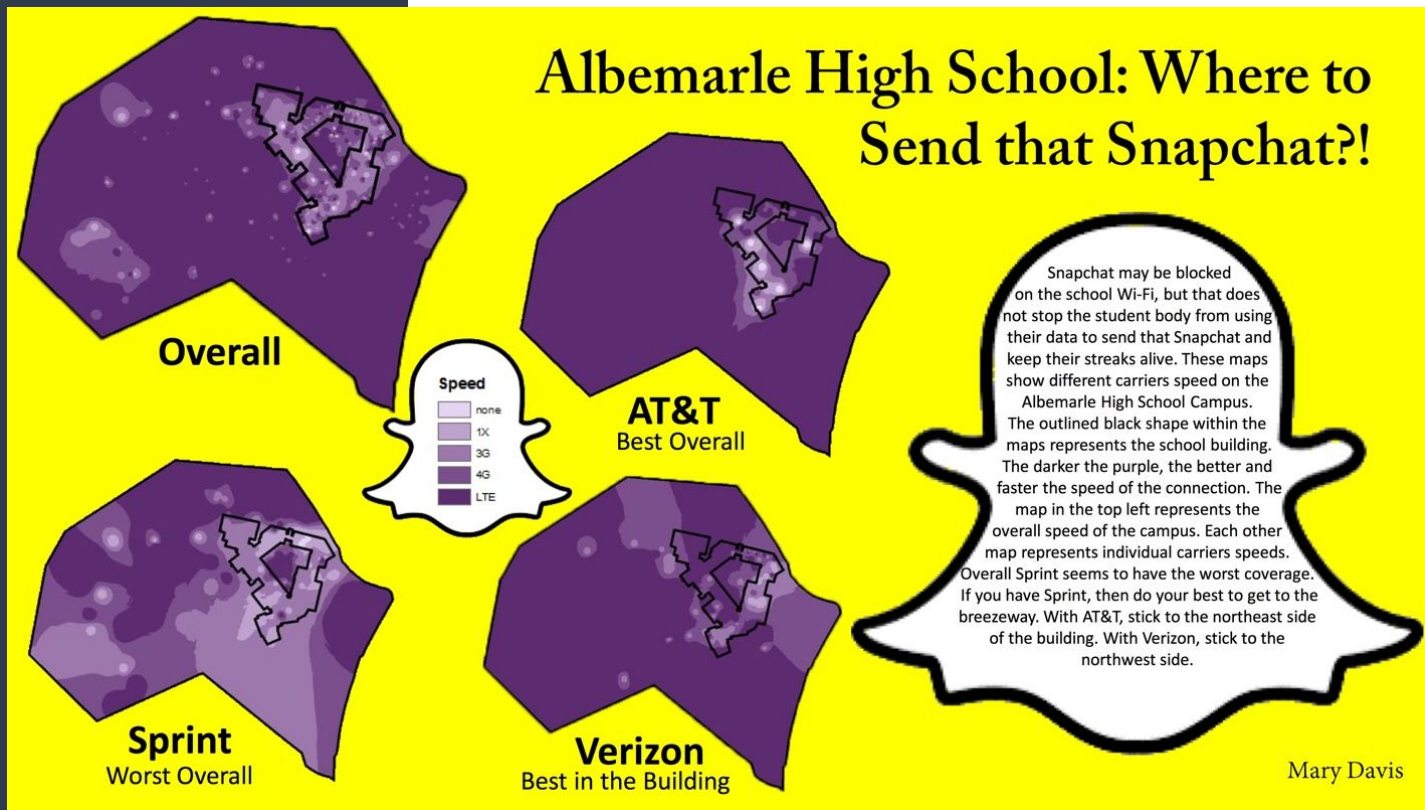
Student Products #3

Another student worked on mapping traffic and accident data to provide a digestible map for areas to possibly avoid.



Student Product

#4



Maps and Data Create Conversations

- Where is the optimal location to start a business?
- Flood Plains/Risk/Insurance
- GDP and Census Tracts
- Voting and Election Patterns
- Analyze Historical Trends

How do we leverage GIS in Economics?

Thoughts? Ideas? Questions?
Research Opportunities?

Cross Curricular Projects!

Points of Contact

ESRI Education - [Tom Baker](#)

Professional Development - [Chris Bunin](#)

Stay in Touch! [Ian Lyons](#)