

# REVIVING GIS AT CLARK ATLANTA UNIVERSITY

Thinking Spatially in Higher Education

Esri Education User Conference

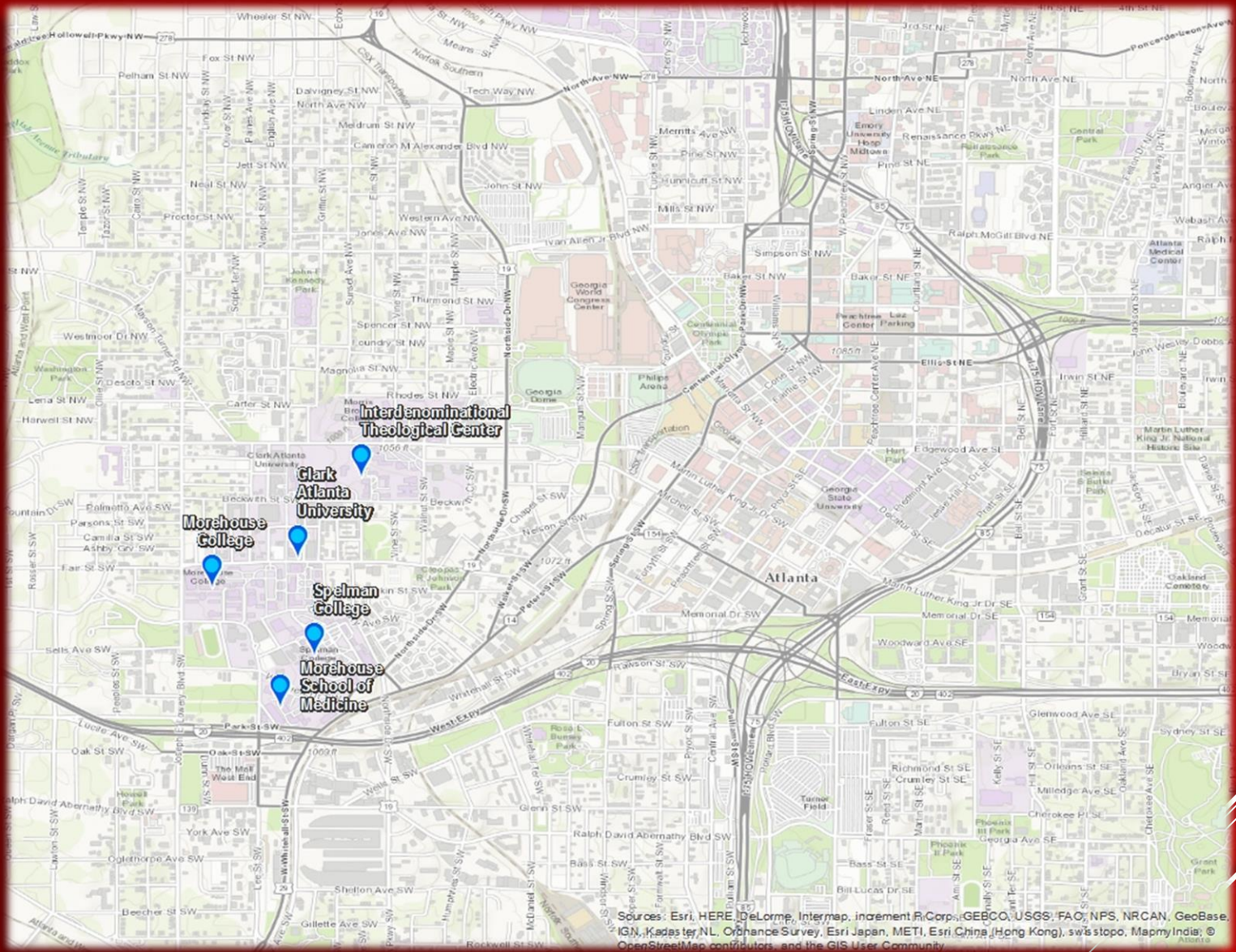
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- Established in 1988 upon the merger of Clark College (1869) and Atlanta University (1865).
- The only University in the Atlanta University Center, which includes 4 other HBCUs, located just southwest of Downtown Atlanta
- Private, not-for-profit
- Degrees offered: Bachelors, Master, Doctoral and Specialist
- 2014-2015 enrollment: 3,485 Students
- 74% Female and 26% Male
- 38 areas of study in Four Schools

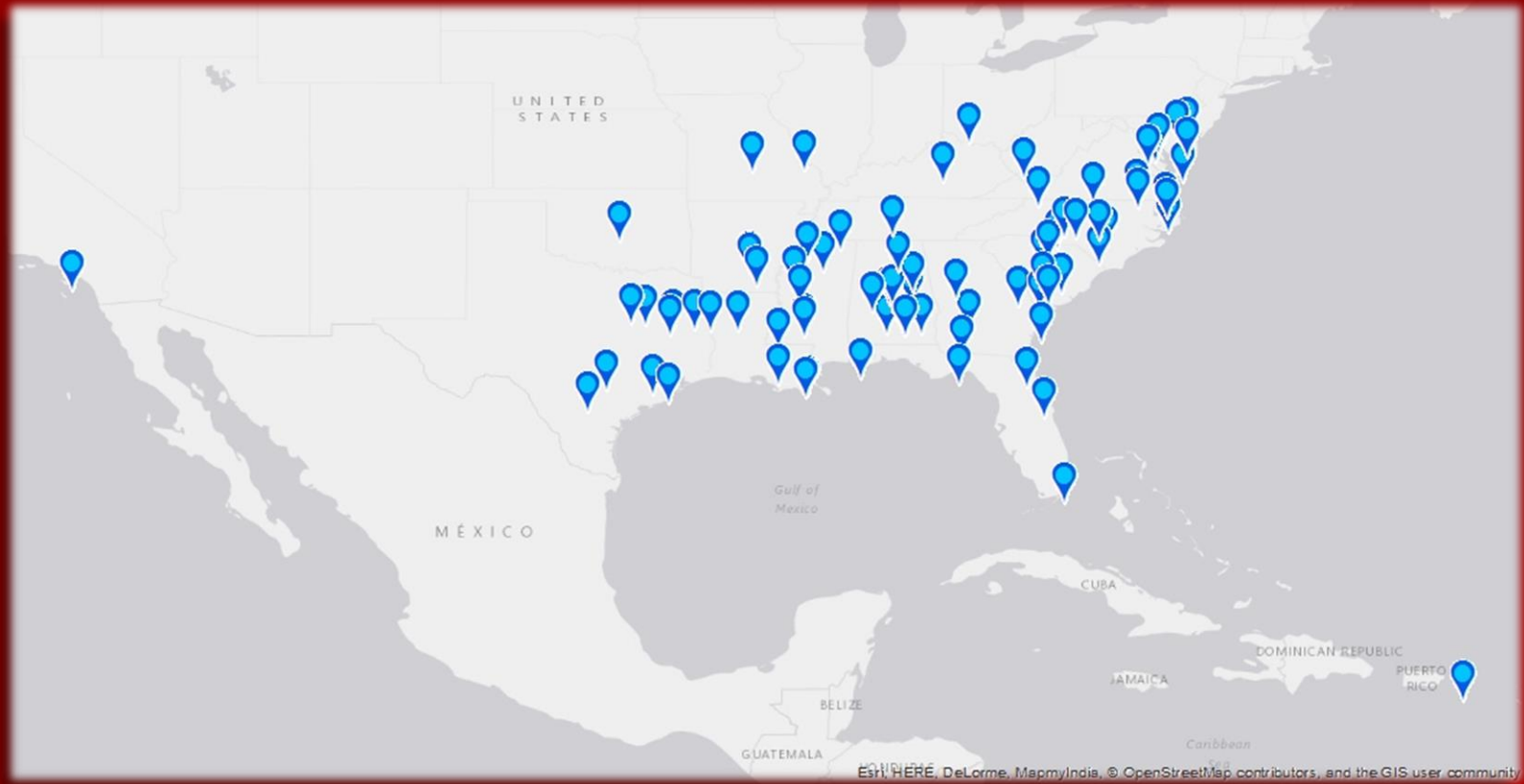


# CLARK ATLANTA UNIVERSITY



- ❑ Established before 1964 with the intention of primarily serving African-Americans, but students of all races are accepted.
- ❑ 107 Institutions Nationwide, including Morehouse College, Howard University, and North Carolina A&T
- ❑ According to a study published by the UNCF, HBCUs are responsible for producing approximately 70% of all black doctors and dentists, 50% of black engineers and public school teachers, and 35% of black lawyers.<sup>[1]</sup>
- ❑ “PWI” or Predominantly White Institution

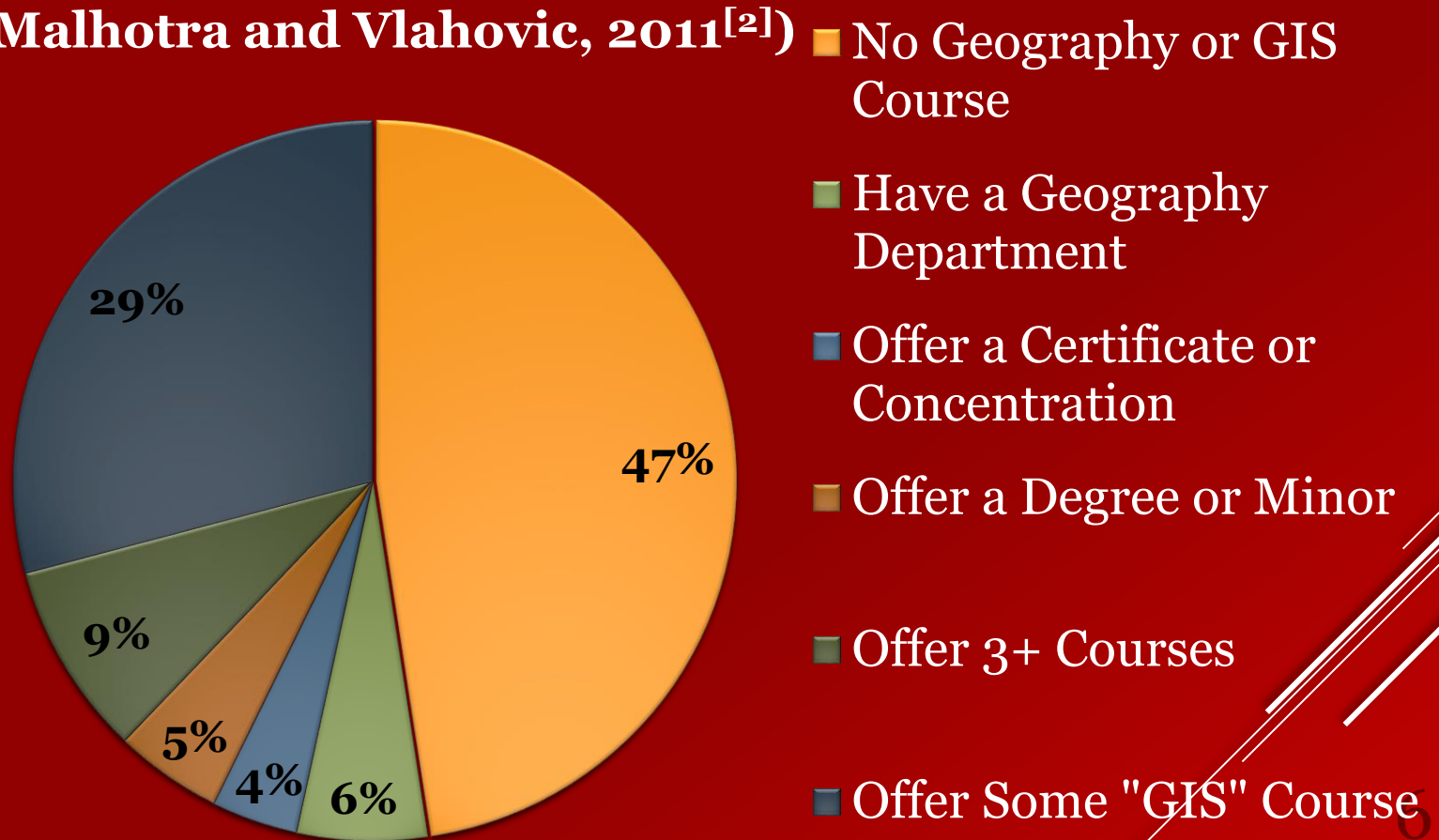
# HISTORICALLY BLACK COLLEGES AND UNIVERSITIES

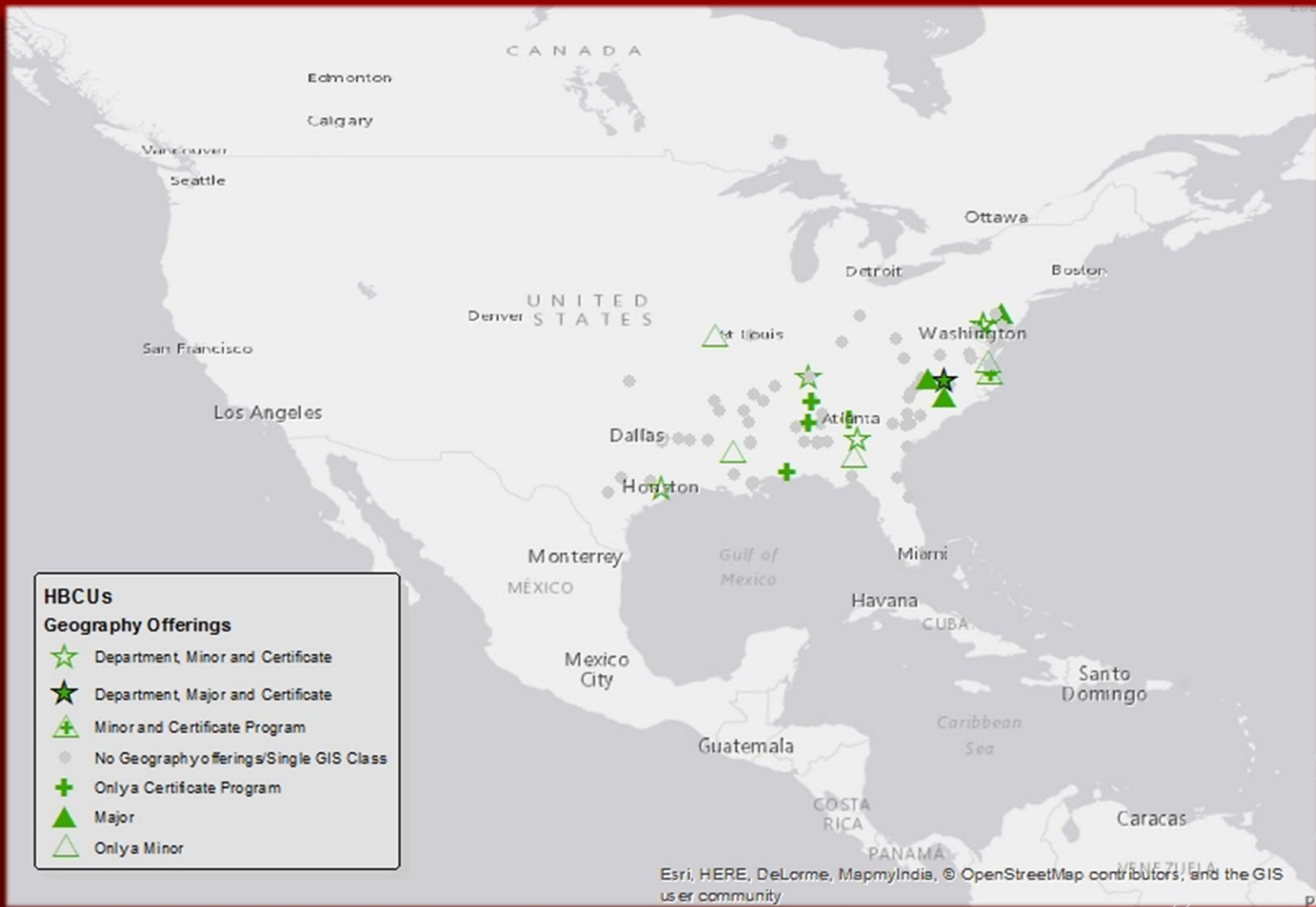


# HISTORICALLY BLACK COLLEGES AND UNIVERSITIES

# BREAKDOWN OF GEOGRAPHY AND GIS PROGRAMS AT HBCUS

(Malhotra and Vlahovic, 2011<sup>[2]</sup>)





- ❑ Similar on most variables: Urban, Public, Larger Institutions
- ❑ Percent of institutions offering “individual courses that do not culminate in any formal qualification”:
- ❑ **HBCU: 61%**
- ❑ **PWI: 42%**
- ❑ **Conclusion: HBCUs need GIS and Geography Certification Programs!**

## COMPARING PWIS AND HBCUS



- ❑ Observations from NCCU GRITS Program:
  - ❑ HBCUs (especially in urban areas) face strong competition with PWIs. [3]
  - ❑ Curriculum must integrate with multiple disciplines. [3]
  - ❑ Faculty must have exposure to GIS functionality that is relevant to their discipline. [3]
- ❑ At NCCU (as of 2011) the University was not funding the program.
- ❑ At CAU, our goal is to integrate GIS into the Culture of the University...

# HOW TO BUILD A STRONG GIS PROGRAM AT AN HBCU

- ❑ Founded through a Department of Education Title III-B Grant for Undergraduate Education (SAFRA) for HBCUs and MSIs.
- ❑ Includes a 400-sq ft Computer Lab in the Science & Research Center
  - ❑ 12 Student computers, one teacher/coordinator workstation, one podium machine with SMART board technology and a designated printing computer.
  - ❑ One WACOM Cintiq pen-touch digitizer tablet.
  - ❑ Large-Format Scanner, 36” Plotter, Printer, and Laminator.
- ❑ Currently, two courses being taught:
  - ❑ Introduction to GIS
  - ❑ Applied GIS
- ❑ Developing a GIS Certificate Program and several stackable credentials.
- ❑ Providing Faculty, Staff and Student workshops using ArcGIS Online and Social Explorer, plus classroom visits.

# GIS AT CAU



- ❑ *Prepares students for advanced degrees in Planning, Computer Science, and Engineering, or for careers in Government, Communications, Policy and Technology.*
- ❑ 18 Credit Hours
- ❑ *Required Courses:*
  - ❑ CSCJ 4XX: Introduction to GIS
  - ❑ CCIS 374: Database Systems
  - ❑ CCIS 229: Rich Internet Applications
  - ❑ CSCJ 420: Special Topics: Applied GIS
  - ❑ CSCJ 425: Internship 1 OR CSCJ 426: Internship 2

# GIS CERTIFICATION PROGRAM

- ❑ *Prepares students for advanced degrees in Planning, Law, Public Affairs, and the Social Sciences, or careers in City Government, Community Development, and Planning departments.*
- ❑ 9 credit hours.
- ❑ *Required Courses:*
  - ❑ CSCJ 4XX: Introduction to GIS
  - ❑ CPSC 313: Urban Politics and Policy
  - ❑ CHCS 433: History of Urban America OR CECO 369: Urban Economics

## URBAN POLICY STACKABLE CREDENTIAL

- ❑ *Prepares students for advanced degrees in Environmental Policy, Law, Public Health, and Planning, or careers in Environmental management and conservation.*
- ❑ 9 Credit Hours
- ❑ *Required Courses:*
  - ❑ CSCJ 4XX: Introduction to GIS
  - ❑ CBIO 261: Environmental Biology
  - ❑ CPSC 371: Science and Public Policy/SPSC 320: Env. Politics & Policy/HPSC: Ethics & Public Policy

## ENVIRONMENTAL POLICY STACKABLE CREDENTIAL

- ❑ GIS Classes specifically designed for Social Sciences and Computer Science (currently taught together)
- ❑ Public Health and Business Logistics Stackable Credentials
  - ❑ Public Health: GIS, Biology, and Public Administration
  - ❑ Logistics: Management, GIS and Databases
- ❑ Training Staff and Faculty to use GIS
- ❑ Unfortunately, our Title-III funding is expiring, so How do we keep GIS at CAU?
- ❑ *By becoming ingrained in the university!*

**FUTURE ACADEMIC ENDEAVORS**



**CAMPUS MAP**

- |   |  |   |
|---|--|---|
| 1. The Paschal Center                   | 16. Career and Professional Development Placement Center | 26. Robert W. Woodruff Library of the AUC |
| 2. Heritage Commons                     | 17. Pfaffner Hall  | 27. CAU Suites                            |
| 3. Cole Research Center                 | 18. Tanner Turner  | 29. Holly Hill - President's Residence    |
| 4. Sage-Bacote Hall                     | 19. Thayer Hall  | 30. Ware Hall                             |
| 5. Alumni House                         | 20. Merner Hall  | 31. Bumstead Hall                         |
| 6. Trevor-Arnett Hall                   | 21. Kresge Hall  | 32. Beckwith Hall                         |
| 7. Harkness Hall                        | 22. Holmes Hall  | 33. Knowles Hall                          |
| 8. Wright-Young Hall                    | 23. Vivian Wilson Henderson Center                       | 34. Oglethorpe Hall                       |
| 9. Clement Hall                         | 24. Cornelius L. Henderson Student Center                | 35. Brawley Hall                          |
| 10. McPheeter-Dennis Haven-Warren       |  | 39. CAU Stadium                           |
| 11. Haven-Warren                        |  | 40. Parking Deck                          |
| 12. Ware Academic                       |  | 41. AUC Consortium                        |
| 13,14. Isabella T Jenkins Honor Program |  |   |
| 15. Biology Building Annex              |  |   |

\* Park Street Church Hot Shovin

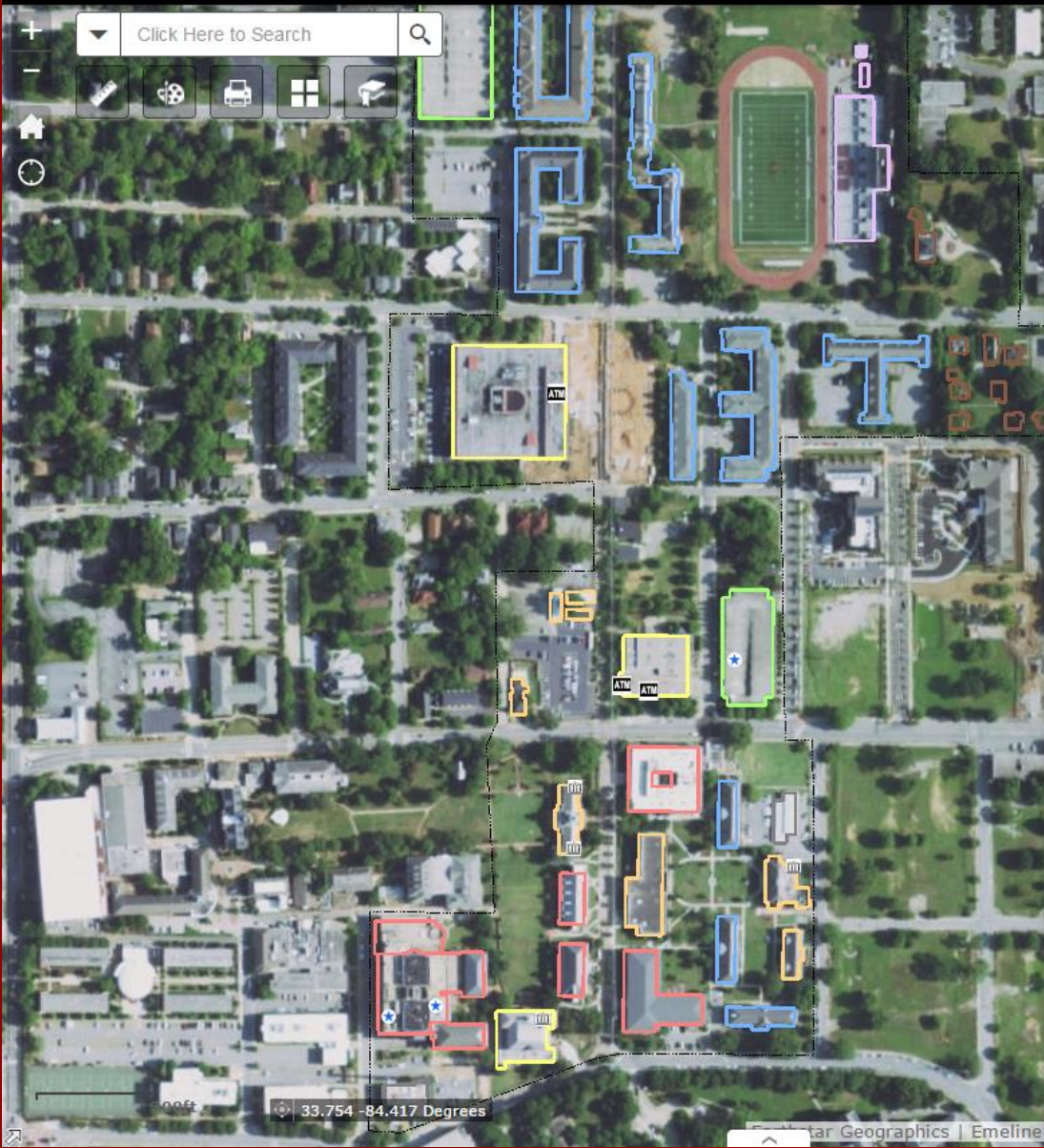
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# CURRENT CAU CAMPUS MAP



- ❑ Simple, interactive Campus Web Map
  - ❑ Using the Web App Builder toolkit for Prototype apps
  - ❑ Available on Desktop or Mobile
  - ❑ Locations, search, information
  - ❑ More difficult to create the data and underlying map
- ❑ Demo of Current Application
- ❑ Also: Application for Campus Edits
  - ❑ Allow certain logins to be “Campus Collectors”
  - ❑ Add offices, assets, and services to the map

MAPPING CAU – WHERE@CAU



### Legend

- CampusCollection**
- ATM Locations
  - ATM
- Administrative Offices
  - Administrative Offices
- Academic Offices
  - Academic Offices
- Campus Buildings
  - Academic
  - Administrative
  - Athletics
  - Auxilliary
  - Parking Deck
  - Residential
  - Staff Housing
  - Student Services
- Campus Boundary
  - Campus Boundary

- ❑ Conversion of CAD files to Room Locations (time-intensive project)
  - ❑ Link to faculty/staff directory for quick room lookup
  - ❑ Tools for the Registrar and students to plan class locations & times
- ❑ Collecting sidewalks, walkways, stairs, etc. to develop a routing system
- ❑ Coordinate with Campus Safety to create an inventory of security assets and incidents of crime.
- ❑ Integrate Facility Management tools into GIS Enterprise Structure
  - ❑ <http://video.esri.com/watch/4954/university-of-minnesota-campus-facilities>
- ❑ Kiosk boards around campus?

# POTENTIAL INTEGRATIONS

## References:

1. Alexander Nazaryan, "Black Colleges Matter", *Newsweek*, August 18, 2015.
2. Malhotra, R. & Vlahovic, G. "GIS Educational Opportunities at Historically Black Colleges and Universities in the United States." *Southeastern Geographer*, vol. 51 no. 3, 2011, pp. 443-456. *Project MUSE*, [doi:10.1353/sgo.2011.0027](https://doi.org/10.1353/sgo.2011.0027)
3. Vlahovic, G. & Malhotra, R. "Geospatial Education at North Carolina Central University: An HBCU Perspective." *Southeastern Geographer*, vol. 50 no. 2, 2010, pp. 258-271. *Project MUSE*, [doi:10.1353/sgo.0.0085](https://doi.org/10.1353/sgo.0.0085)

THANK YOU FOR ATTENDING.  
QUESTIONS?