

Steven R. Schultze

University of South Alabama, Assistant Professor, Department of Earth Sciences

Phone: (251) – 460 – 7041 Email: schultze@southalabama.edu

EDUCATIONAL CREDENTIALS

Ph.D. (Geography) *Michigan State University, 2015.*

Dissertation: “Effects of Climate Change and Climate Variability on the Michigan Wine Grape Industry”

Advisor: Dr. Lifeng Luo

M.A. (Geography) *Western Michigan University, 2011.*

Thesis: “Hydrologic Modeling of Wetland Loss in North-Central Florida”

Advisor: Dr. Chansheng He

B.A. (Geography) *University of Florida, 2008.*

ACADEMIC APPOINTMENTS

GIS Center Director, Department of Earth Sciences, University of South Alabama, Spring 2020 – present (*pending administrative approval*)

GIS Program Coordinator, Department of Earth Sciences, University of South Alabama, Fall 2017 – present

Graduate Faculty, Associate Member, University of South Alabama. Fall 2017 – present.

Assistant Professor of Geography, Department of Earth Sciences, University of South Alabama. Fall 2015 – present.

Adjunct Faculty, Behavioral and Social Sciences Department, Oakland Community College – Orchard Ridge Campus, Fall 2012 – Spring 2015.

Instructor/Teaching Assistant, Department of Geography, Michigan State University, Summer 2012, 2013, 2014, Fall 2014 – Summer 2015.

Online Curriculum Developer, Department of Geography, Michigan State University, Spring 2013; Spring 2014.

Graduate Research Assistant, Department of Geography, Michigan State University, 2011 – 2015.

Research and Teaching Assistant, Department of Geography, Western Michigan University, Fall 2009 – Summer 2011.

COURSES TAUGHT

University of South Alabama

GEO101 – Atmospheric Processes	GEO 102 – Landscape Processes
MET/GEO 341/443 – Climatology	GEO 410 – Biogeography
GEO 435 – Research Methods	GIT 461 – Environmental Applications of GIS
GEO 475 – Field Work: Michigan Landscapes	GEO 490 – Geographies of Sport
GEO490(H) – Geography of Alcohol	GEO494/594 – Directed Studies
GEO496/596 – Internship in Geography	GIT496/596 – Internship in GIS

PEER-REVIEWED PUBLICATIONS

- Schultze, S.R.**, Campbell, M.N., Walley, S., Pfeiffer, K., Wilkins, B. 2020. Exploration of sub-field microclimates and winter temperatures: Implications for precision agriculture. *International Journal of Biometeorology*. (Accepted 4/18/2020, in revision).
- Schultze, S. R.**, & Sabbatini, P. 2019. Implications of a Climate-Changed Atmosphere on Cool-Climate Viticulture. *Journal of Applied Meteorology and Climatology*, 58(5), 1141-1153.
- Schultze S.R.**, Mujica, F.C., Kleinheksel, A.J. 2019. Regional Trends and Preconceptions of Diabetes-related Health Care Management. *Social Science and Medicine*, 222, 225-230.
- Schultze, S. R.**, & Wellbrock, C. M. 2018. A weighted plus/minus metric for individual soccer player performance. *Journal of Sports Analytics*, 4(2), 121-131.
- Schultze, S.R.**, Sabbatini, P., Luo, L. 2016. Effects of a Warming Trend on Cool Climate Viticulture in Michigan, USA. *Springer* 5:1119, 15 pp.
- Schultze S.R.**, Sabbatini, P., Luo, L. 2016. Interannual Effects of Early Season Growing Degree Day Accumulation and Frost in the Cool Climate Viticulture of Michigan. *Annals of the American Association of Geographers*, 106(5): 975-988.
- Schultze, S.R.**, Sabbatini, P., Andresen, J.A. 2014. Spatial and Temporal Study of Climatic Variability on Grape Production in the Lake Michigan Shore AVA. *American Journal of Enology and Viticulture*, 65(2): 179-188.
- Baustian, M.M., Mavrommati, G.M., Dreelin, E.A., Esselman, P., **Schultze, S.R.**, Qian, L., Gim Aw, T., Luo, L., Rose, J.B. 2013. A One Hundred Year Review of the Socioecological System of Lake St. Clair, North America. *Journal of Great Lakes Research*, 40(1): 15-26.

NON PEER REVIEWED PUBLICATIONS.

Schultze, S.R. 2020. Map of American Viticultural Areas (AVAs) of the Midwestern United States. Midwest Viticultural Production. Ohio State Press.

Schultze, S.R., Hall, B., Sabbatini, P., Dami, I. 2016. Midwest Viticultural Production. Ohio State Press. Book Chapter: "Climate and climate change effects on grapes." (*In review.*)

PRESENTATIONS

2020 "Implications of a Climate Changed Atmosphere on Cool Climate Viticulture." **Schultze, S.R.** and Sabbatini, P. American Meteorological Society Annual Meeting, January 12-16, Boston, MA.

2019 "Persistence and spatial ecology of gopher tortoise colonies in southwest Alabama." Lloyd, R., **Schultze, S.R.**, Chupp, A. Biennial Coastal Estuarine Research Federation (CERF). November 3-7, Mobile, AL.

"Implications of Mesoscale Climate Change on Cool-Climate Viticulture." **Schultze, S.R.** Mississippi State University Department of Geosciences Research Seminar. November 8, 2019, Starkville, MS.

"Global Climate Change and Regional Wine Production." **Schultze S.R.** Georgia State University Department of Geosciences and Global Studies Institute Colloquium Series. October 17, 2019, Atlanta, GA.

"Anthropogenic Climate Change" **Schultze, S.R.** Presentation at Georgia State University in Environment and Society (PERS2002) on October 20th, 2017.

"3-Dimensional Mapping of Agricultural Microclimates within a Sub-field Level" **Schultze, S.R.**, and Darring, S. American Association of State Climatologists Annual Meeting, June 26-30, Santa Rosa, CA.

"3-Dimensional Mapping of Agricultural Microclimates within a Sub-field Level" **Schultze, S.R.**, Campbell, M., Pfeiffer, K., and Darring, S. Southeastern Coastal and Atmospheric Processes Symposium, April 6, Mobile, AL.

"3-Dimensional Mapping of Agricultural Microclimates within a Sub-field Level" **Schultze, S.R.**, Foreman, J., Crosby, G., and Darring, S. American Association of Geographers Annual Meeting, April 3-7, Washington D.C.

"Comparison of Peach Response to Weather in Alabama and Michigan." Foreman, J., and **Schultze, S.R.** Alabama Academy of Science Annual Meeting, February 21. Tuskegee, AL.

"Expansion of Hops (*Humulus lupulus*) Production in the Southern Alabama Region." Williams, W., and **S.R. Schultze** Alabama Academy of Science Annual Meeting, February 21. Tuskegee, AL.

- “Gopher Tortoise Ecology and *Amphiuma* Population Genetics.” Lloyd, R., **Schultze, S.R.**, Chupp, A. Reptile Education Awareness Conservation & Husbandry (REACH) graduate student showcase, January 2019, Mobile, AL.
- 2018 “3-Dimensional Mapping of Agricultural Microclimates within a Sub-field Level” **Schultze, S.R.**, and Darring, S. American Geophysical Union Annual Meeting, December 10-14, Washington D.C.
- “South Alabama Hops Project and the USA Mesonet” **Schultze, S.R.** and Kimball, S. Presented at Mesonet Workshop, St. Louis, MO, October 8-9.
- “3-Dimensional Mapping of Agricultural Microclimates within a Sub-field Level” **Schultze, S.R.** Presented at Annual Meeting of the American Association of Geographers, New Orleans, LA, April 10-14.
- “Precision Agriculture and the Effect of Microclimates on Growth Across Individual Crops.” **Schultze, S.R.** Alabama Academy of Science Annual Meeting, Homewood, AL, March 15.
- “Study on Feasibility and Viability of Growing Hops (*Humulus lupulus*) in the Southern Alabama Region.” Williams, W., and **Schultze S.R.** Alabama Academy of Science Annual Meeting, Homewood, AL, March 15.
- “Examination of Extreme Cold and Frost in Alabama Citrus.” Darring, S., and **Schultze, S.R.** Alabama Academy of Science Annual Meeting, Homewood, AL, March 15.
- “The South Alabama Mesonet – Impacts on the North-Central Gulf Coast Community” Kimball, S., Terwey, W., **Schultze, S.R.**, Grondin, N.S. Presented at Annual Meeting of the American Meteorological Society, Austin, TX, January 7-11.
- 2017 “Anthropogenic Climate Change” **Schultze, S.R.** Presentation at Georgia State University in Environment and Society (PERS2002) on October 20th, 2017.
- “Climate Change and Wine.” **Schultze, S.R.** University of South Alabama Odyssey (continued lecture series for seniors) Program. Presented on April 28th, 2017.
- “Climatology of South Alabama Region” **Schultze S.R.** Guest Lecture presented in ES492 Honors class on April 17th, 2017.
- “Precision Agriculture and the Effect of Microclimates on Growth Across Individual Crops” **Schultze, S.R.** Presented at the Annual Meeting of the American Association of Geographers, April 5th, Boston, Massachusetts.
- “Precision Agriculture and the Effect of Microclimates on Growth Across Individual Crops” Buchanan, A., **Schultze, S.R.**, Presented at the Southeastern Coastal and Atmospheric Processes Symposium (SeCAPS), February 10-11, Mobile, Alabama.
- “Comparing Temperature Data from USA Mesonet Stations, Cooperative Observer Stations and Automatic Surface Observing System Stations” Grondin, N.S., Kimball, S.,

- Schultze, S.R.**, Terwey, W.D. Presented at the Southeastern Coastal and Atmospheric Processes Symposium (SeCAPS), February 10-11, Mobile, Alabama.
- 2016 “Social Media and (Citizen) Science” **Schultze S.R.** Guest lecture presented at the University of Hamburg MBA Program Media Economics Course, Hamburg, Germany, June 20th, 2016.
- “Climate Change and Media Bias” **Schultze S.R.** Guest lecture presented at the University of Hamburg MBA Program Media Economics Course, Hamburg, Germany, June 13th, 2016.
- “Centers of Power in European Domestic Football Leagues: 1980 to 2015” **Schultze, S.R.** Presented at the Annual Meeting of the American Association of Geographers, March 28 – April 2, San Francisco, California.
- “Climate Change and You.” **Schultze, S.R.** University of South Alabama Odyssey (continued lecture series for seniors) program. Presented on April 22nd, 2017.
- “Climate Change and Michigan’s grapes.” **Schultze, S.R.** Presented at the Ann Arbor Hands On Museum. February 5, Ann Arbor, Michigan.
- “Winter Damage in Michigan Vineyards” Howell, S.G., Sabbatini, P., **Schultze, S.R.** Orchard and Vineyard Show, January 26, Traverse City, Michigan.
- “Spatial and temporal variability of springtime freeze events and their impact on tart cherry production in the Great Lakes Region.” 2016. Rill, L., Andresen, J., Winkler, J., Black, R., **Schultze, S.R.** Presented at the American Meteorological Society National Meeting, Jan 10-14, New Orleans, Louisiana.
- 2015 “FASST’: A Statistical and Spatial Analysis System To Evaluate Player Performance in Soccer” **Schultze, S.R.**, Wellbrock, C. Presented at the 2015 SEDAAG Annual Meeting, November 22-24, Pensacola, Florida.
- “Effects of a Warming Trend on Cool Climate Viticulture in Michigan, USA” **Schultze, S.R.**, Sabbatini, P., Luo, L. Presented at the 2015 National Meeting of the Association of American Geographers, April 21-25, Chicago, Illinois.
- 2014 “‘*You Can’t Grow That Here!*’ A discussion of climate change and Michigan’s growing wine industry.” **Schultze, S.R.** Talk given on November 1 to Michigan State University Alumni Club of Eastern Wayne County at Edsel and Eleanor Ford House, Grosse Pointe Shores, Michigan.
- “Climate Change and Potential Agronomic Impacts in the Great Lakes Region.” Andresen, J.A., **Schultze, S.R.** Talk given at conference “Weathering the Climate: Cultivation and Technology in Grape Production,” September 5, at Northwestern Michigan College in Traverse City, Michigan.
- “Spatial and Temporal Study of Climatic Variability on Grape Production in the Lake Michigan Shore AVA.” **Schultze, S.R.**, Sabbatini, P., Andresen, J.A., Luo, L. Presented at the 2014 National Meeting of the Association of American Geographers, Tampa, FL.

- Colloquia presented at Michigan State University (part of Student Presentation Competition): “Spatial and Temporal Study of Climatic Variability on Grape Production in the Lake Michigan Shore AVA.” **Schultze, S.R.**, Sabbatini, P., Andresen, J.A.
- “Just How Cold Was It?” Sabbatini P., **Schultze S.R.**, Howell G.S. 2014 Michigan Grape and Wine Conference, February 26-28, Traverse City, Michigan.
- 2013 “Soccer’s Unique Geography: The Beautiful Game’s history as told through isolation, evolution, hooliganism and passion.” **Schultze, S.R.** Guest Lecture. Michigan State University. Sport Geography (GEO215).
- “Analysis of Historical Recreational Water Quality Data in Lake St. Clair, Great Lakes.” Qian, L., **Schultze, S.R.**, Dreelin, E., Rose, J.B) Presented at the 2013 National Meeting of the Association of American Geographers, Los Angeles, CA.
- Colloquia presented at Michigan State University (part of Student Presentation Competition): “Analysis of Historical Recreational Water Quality Data in Lake St. Clair, Great Lakes.” (Qian, L., **Schultze, S.R.**, Dreelin, E., Rose, J.B)
- 2012 Colloquia presented at Michigan State University (part of Student Presentation Competition): “Hydrologic Modeling of Wetland Loss in North-Central Florida”.
- 2011 Colloquia presented at Western Michigan University: “Hydrologic Modeling of Wetland Loss in North-Central Florida”.
- “Hydrologic Modeling of Wetland Loss in North-Central Florida.” **Schultze S.R.** Presented at the National Meeting of the Association of American Geographers, April 11-15, Seattle, WA.
- 2010 “Net Historic Wetland Loss in the Kalamazoo River Watershed.” **Schultze, S.R.**, Rivet D. Presented at the National Meeting of the Association of American Geographers, April 5 – 9, Washington, D.C.

GRANTS AND AWARDS

- 2020: NASA. Citizen Science for Earth Systems Program. “Comparison of satellite and mesonet weather data in complex urban-suburban spaces with the South ALABama MIconet (SALAMI): A high-resolution crowdsourced network of weather microloggers operated by local high school students.” Role: PI. Submission due date: September 11, 2020.
- \$245,688 (*awaiting reply*)
- Project GREEN, Michigan State University AgBioResearch, “UAS measurement of physiological and architecture response of grapes to environmental conditions.” Role: Co-PI. Submitted: January 2020.
- \$40,000 (*awaiting reply*)
- Alabama Department of Conservation and Natural Resources (ADCNR) & National Oceanic and Atmospheric Administration (NOAA) GIS Urban Floodzone

Mapping in Mobile and Baldwin Counties, Alabama. Role: PI. Submitted: January 2020.
\$20,000

University of South Alabama, Summer Undergraduate Research Fellowship (SURF).
Role: Advisor.
\$2,300

2019: National Science Foundation, Geography and Spatial Sciences Program, “Implications of Mesoscale Climate Change on Cool-Climate Viticulture.” Role: PI. Submitted: September 2019.
\$271,033 (declined)

University of South Alabama, Galápagos Travel Award, “High resolution study on the microclimates of various plant zones on San Cristóbal Island, Galápagos, Ecuador” Role: Awardee. Submitted: September 2019.
\$3,000

University of South Alabama College of Arts and Sciences Excellence in Teaching Award.
\$1,500

University of South Alabama, Summer Undergraduate Research Fellowship (SURF)
Role: Advisor.
\$2,300

2018: USDA Specialty Crop Research Initiative Planning Grant for “South x Southwest: A Hops (*Humulus lupulus*) research and extension planning project for a non-traditional hops growing region” Role: Co-PI. Submitted: December 2018.
\$49,889 (declined)

University of South Alabama, Research and Scholarship Development Grant Program for “Examining Sedimentary Terrace Deposits Along the Alabama and Coosa Rivers: Understanding Regional River Dynamics and Northern Gulf of Mexico Sea Level Fluctuations” Role: Co-PI. Submitted: February 2018.
\$25,000 (declined)

University of South Alabama, Summer Undergraduate Research Fellowship (SURF)
Role: Advisor.
\$2,300

University of South Alabama, Faculty Development Council Grant Program.
“Development of an In-grove Frost Warning System.” Role: PI. Submitted: January 2018.
\$4,710

2017: National Science Foundation, Faculty Early Career Development Program (CAREER),
 “CAREER: Microclimates, Precision Agriculture and Specialty Crops” Role: PI.
 Submitted: July 2017
 \$488,822 (declined)

University of South Alabama, Summer Undergraduate Research Fellowship (SURF)
 Role: Advisor.
 \$2,000

2016: National Science Foundation, Faculty Early Career Development Program (CAREER),
 “CAREER: Microclimates, Precision Agriculture and Specialty Crops” Role: PI.
 Submitted: July 2016
 \$440,583 (declined)

University of South Alabama, Summer Undergraduate Research Fellowship (SURF)
 Role: Advisor.
 \$2,000

2015: University of South Alabama, College of Arts and Sciences, Arts and Sciences
 Support and Development Grant. “High resolution mapping of microclimates in different
 biomes in the southeastern United States.” Role: PI. Submitted December 2015.
 \$1,410

Department of Earth Sciences grant match \$500

Total of awarded grants/support: \$42,020 (\$285,688 *awaiting reply*)
 Total of grants/support applied for: \$1,603,035

SUPERVISION OF STUDENT RESEARCH

Honors Theses:

- 2020:** “Effects of temperature on yeast population dynamics and volatile compound production during primary fermentation” by James Parker McGee, Role: Committee Chair
- 2019:** “Comparison of perceived tornado threats in Central Oklahoma” (working title) by Rebekah Cheatham, Role: Committee Member
- 2017:** “Comparing temperature data from USA mesonet stations, Cooperative Observer (COOP) stations, and Automatic Surface Observing System (ASOS) Stations across the Northern Gulf Coast” by Nicholas Grondin, Role: Committee Member
- 2016:** “Identifying the various types of cell mergers present in severe weather events” by Adam Olivier, Role: Committee Member

Masters Theses:

- 2019:** “Spatial distribution of tick population in Alabama (Working Title).” Student: Skyler Kerr (Biology), Role: Committee Member
- 2018:** “Gopher Tortoise Habitat Indicators in the Upper-Mid Gulf Coast (Working Title).” Student: Robin Lloyd (Biology), Role: Committee Member
- 2017:** “Climate Indicators in Catahoula Formation in SW Mississippi during Late Oligocene (Working Title).” Student: Patrick McAnerney (Biology), Role: Committee Member

Directed Research:

- 2019:** “National Basketball Association Shot Location and Spatial Statistics.” Students: Troy King (Meteorology), Raymond Justice (Geography), Dylan Griffin (Geography)
- “SWAT Modeling of Big Canoe Creek, Bear Creek, Paint Rock River, Murder Creek and Buttahatchee River” Student: Eric Saucier (Masters of Public Administration)
- “Comparison of Peach Response to Weather in Alabama and Michigan.” Student: Jerel Foreman (Geography)
- 2018:** “SWAT Modeling of the Locust Fork of the Black Warrior River.” Student: Kaylyn Bellais (Geology)
- “Expansion of Hops (*Humulus lupulus*) Production in the Southern Alabama Region” Student: Wayne Williams (Geography)
- “Collection of High Resolution Weather Data in Winter Storms in Satsuma Mandarin Groves.” Student: Samantha Darring (Meteorology)
- “Management and Processing of High Resolution Simulated Climate Data.” Student: Mike Jeffries (Geography)
- 2017:** “GIS Mapping of Anthropological Heritage Dig Sites Across Alabama.” Student: Christopher Konen (Anthropology)
- “High Resolution 3-D Mapping of Freeze Events and Mitigation Efforts in Satsuma Mandarin Trees.” Student: Murdoch Campbell (Interdisciplinary Studies/Geography)
- “Study on Feasibility and Viability of Growing Hops (*Humulus lupulus*) in the Southern Alabama Region” Student: Wayne Williams (Geography)
- 2016:** “Precision Agriculture and the Effect of Microclimates on Growth Across Individual Crops” Student: Allison Buchanan (Meteorology)
- “Effects of Weather Data Resolution on Hydrologic Modeling” Student: Traci Palmer (Geography)
- 2015:** “Centers of Power in European Domestic Football Leagues: 1980 to 2015” by Schultze S.R. Students: Hunter Boykin (Geography), Sarah Roberts (Geography), Sven Meyer (Engineering)

MEDIA AND OUTREACH-RELATED PUBLICATIONS

Schultze, S.R. 2019. "Climate Change and Wine – Is the Glass Half Full or Half Empty?" Union of Concerned Scientists Blog. <https://blog.ucsusa.org/science-blogger/climate-change-and-wine>

Schultze S.R. 2015. Organizational materials for 2015 AAG Annual meeting Wine Specialty Group Field Trip

Schultze S.R. 2014. "4-minute video" lecture series for GEO203V, Michigan State University Virtual University

Schultze S.R. 2013. "90-second(ish) video" lecture series for GEO206V, Michigan State University Virtual University (2013)

PROFESSIONAL AFFILIATIONS

Honor Societies

- Gamma Theta Upsilon, Western Michigan University (Alpha Gamma) chapter

Professional Societies

- American Association of State Climatologists
- Association of American Geographers (Specialty Groups: Climate, GIS, Wine/Beer/Spirits)
- Southeastern Division of the Association of American Geographers
- Alabama Academy of Science
- American Meteorological Society
- St. George Geographical Society

SERVICE AND OUTREACH

To University of South Alabama:

- Honors College admissions, Reviewer and Interviewer, 2018 and 2020
- South Alabama United Way Campus Drive Department Representative, Fall 2017
- USA Odyssey program, Speaker, April 2016, April 2017

To College of Arts & Sciences:

- Director, GIS Center, University of South Alabama, 2020 – present
- Graduate Final Course Grade Grievance Committee Member, 2019 – 2020 academic year
- Summer Professional Development Grant Committee, Reviewer, Spring 2018
- College of Arts and Sciences Support and Development Grant Committee Member, Fall 2016

To Earth Sciences Department:

- GIS Program Coordinator, August 2017 – present
- Faculty Liaison to the USA Geography Club, 2016 – present
- Curriculum Committee, Member, 2017 – present
- Field Trip/Safety Committee, Member, 2017 – present
- Textbook/Library Committee, Member, 2016 – 2017
- Academic Standards Committee, Member, 2016 – 2017
- Recruitment Committee, Member, 2015 – present

To Organizations:

- Field trip organizer for: Vineyard and wine tasting field trip, April 24, 2015, Annual Meeting of the American Association of Geographers
- Alabama State Faculty Representative to AAG World Geography Bowl
- Alabama Academy of Sciences Environmental and Earth Sciences Section Chair (Fall 2017 – present)

To Michigan State University:

- Geography Graduate Group, Social Chair Officer, 2011 – 2015
- Geography Graduate Group, Colloquium Series Coordinator, Fall 2013 – Spring 2014

To Western Michigan University:

- Gamma Theta Upsilon Social Chair, 2011 – 2012
- Gamma Theta Upsilon Co-Social Chair, 2010 – 2011
- Gamma Theta Upsilon/Geography Club Representative to Western Student Association (Student government), Spring 2011
- WMU Geography Department “2010 Geo Race”, Volunteer, 2010

To University of Florida:

- University of Florida Pride of the Sunshine Marching Band, 2004 – 2007
- Chemistry Outreach Program, Member, Fall 2006

To Community:

- Skype-A-Scientist, Scientist.
 - o Ms. Seyk’s 5th grade class, Ormond Beach, FL, 2/13/2020
 - o Ms. McClintock-Miller’s 4th grade class, Van Meter, IA, 1/28/2020
 - o Ms. Hernandez’s K-5 Class, Austin, TX, 11/1/2018
 - o Ms. Parent’s 4th grade class, Mansfield, MA, 2/15/2018
 - o Ms. Herman’s 1st grade class, Johns Creek, GA, 12/14/2017
- South Alabama Map-A-Thon for Puerto Rico Relief Effort, October 2017
- Merit Badge Jubilee: Five Rivers (Mobile Area) District, Boy Scouts of America, March 2017
- GEO Department Thanksgiving Food Drive 2016 – 2019 for on campus food bank
- Weather Lectures given to Eaton Rapids High School (Eaton Rapids, MI), June 2015

- Eagle Scout, 2003. Project: Butterfly Garden, Tree Tops Park, Davie, Florida
- Youth Recreational Soccer Coach, City of Sunrise, Florida 2002 – 2004
- Guest Reader/Teacher, Central Park Elementary, Plantation, Florida 2000-2018