Ada

Leon County Schools
Student Equitable Access
Business Requirements

Created: 3/15/2021

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Revision History:

Version	Date	Revised By
1.0 (Original)	3/15/2021	Brian Boyd

Business Case:

Focus on Equity

Leon County Schools has struggled to create diverse student populations across schools in an environment of open enrollment. There has been a historic disproportionality for African-American students with respect to chronic absenteeism, discipline, and student outcomes. Identifying, analyzing, and responding to disproportionality is critically dependent on the district's data systems, which up until now, have largely been limited to after-the-fact reporting. Several key issues have been identified:

- Inconsistent data entry and classification practices impact data accuracy and consistency, which, in turn, impacts the ability to address equity issues.
- Data integration issues impact the ability to provide consolidated data.
- Lack of real-time data limits the ability to conduct timely interventions.

The first-year project will accomplish the following:

- Improve processes and governance practices relating to enrollment, attendance, and behavior to achieve better accuracy and consistency.
- Create equity reports related to participation in our four major secondary programs:
  -Advanced Placement

  -International Baccalaureate

  -Dual Enrollment

  -Honors (Florida early graduation program)

  -Collecting, displaying, and filtering participation by Students Demographic, Attendance, Discipline, Grade, and Assessment data.

- Target student interventions (for absences, discipline, and/or performance) to direct interventions and address equity issues as they occur, triggered by real-time data in a new principal's dashboard.
- Track vulnerable African-American students in a new longitudinal data vault to ensure that appropriate interventions are being made and that individual outcomes are improved.

Development Approach:

The Leon County Schools student equitable access analytics tool will be built in MS Power BI using the Ed-FI ODS as the sole data source. The Leon County Schools' Ed-Fi ODS is used to build the Hoonuit Data Warehouse. Our equitable access dashboards will be deployed into the Hoonuit shared workspace so that all of our analytics tools can live in the same environment for easy access by administrators.

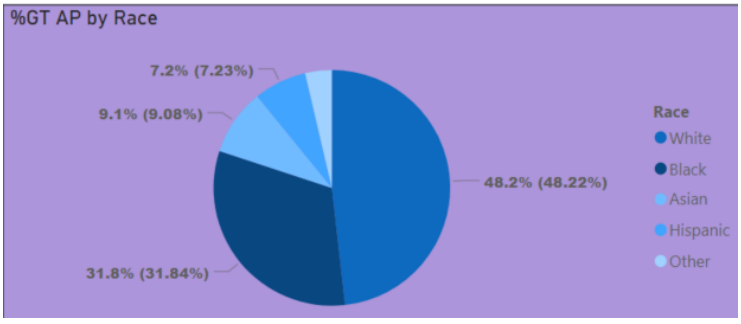
Business Requirements:

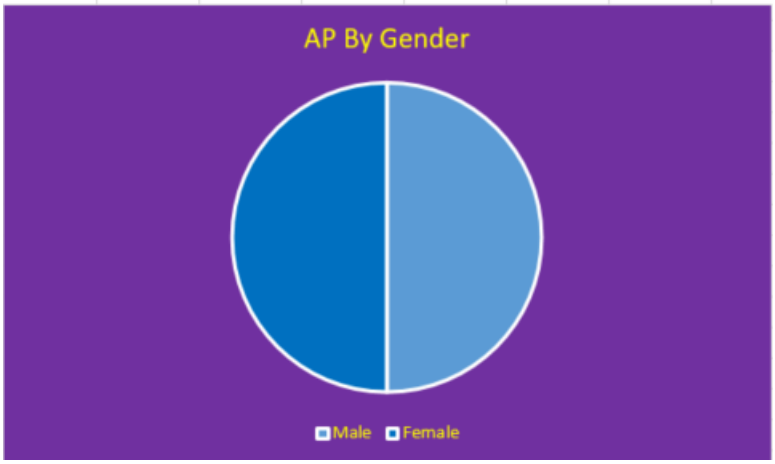
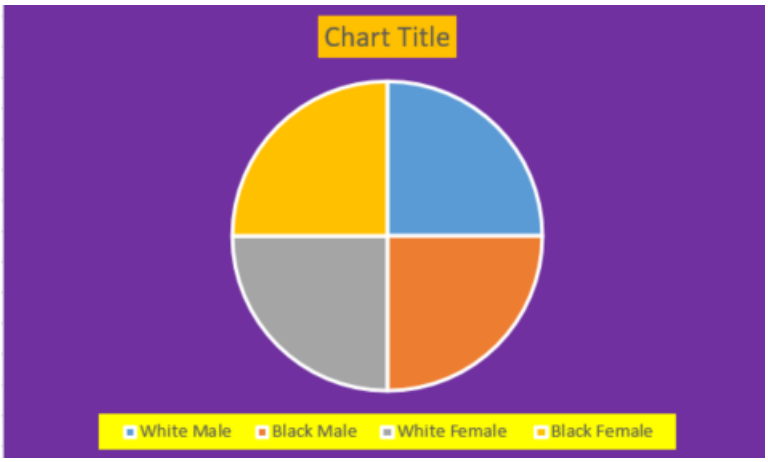
This analytics tool will consists of multiple dashboards providing data about equitable access within the district. The plan is to build five dashboards showing equitable access to:

- Secondary Academic Programs:
  - Advanced Placement (AP)
  - International Baccalaureate (IB)
  - Honors
  - Dual Enrollment
- Teachers (By Years of Experience and Performance)
  - Experience Based
    - Zero to Three Years
    - Three to Five Years
    - Five to Ten Years
    - Over Ten Years
  - Performance
    - Highly Effective
    - Effective
    - Needs Improvement
    - New Teacher
- General Education
- Discipline Outcomes
- Assessments

Requirements Applicable to All Dashboards:

Feature:	**Description:**	**Priority:**
Access Control	Access to these dashboards will be restricted to the following: ● School Based Administrators o Principal, Assistant Principals, Deans o Access restricted to their school o Location and role determined by Active Directory Groups ● District Administrators	High

	- o Staff from Teaching and Learning, Intervention Services, School Management, Technology and Information Services, and Community Services - o Department determined by Active Directory - The Superintendent - The School Board	
Student Demographic Filters	Data should be able to be filtered and summarized (totaled) by the following student Demographics: - Ethnicity/Race - Gender - Residence Zip Code - Age - Lunch Status (Free, Reduced, Ineligible) - ESE and 504 Status - ELL Status - Feeder/Prior School - Family Situation - o Multiple Parent - o Single Parent - o Homeless - Zoned School - Grade Level - Cohort (Year Entering 9th Grade) Visualizations should summarize data based upon the selected demographic and it should update when a new filter is selected. For example, if a visualization contains a pie chart summarized by race:  If the filter is changed to Gender, the visualization will updated to now show the data summarized by gender:	High

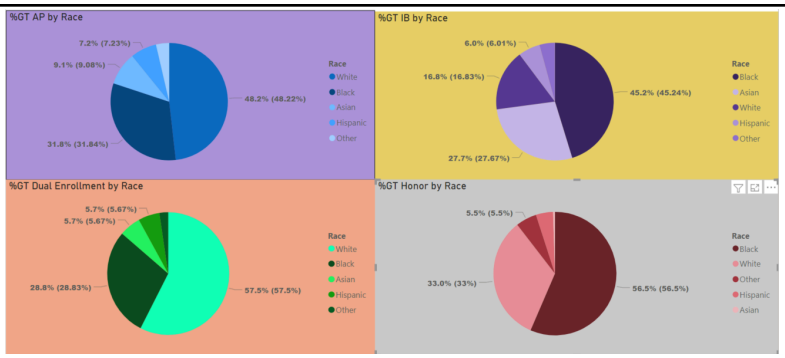
	 Demographic options selected should be stackable meaning that a visualization should show data by race, gander, or race and gender if both are selected. 	
Detail Data	The user should be able to “Drill Down” into any group represented on a visualization and see all students that make up that group. Data should be displayed as a data card showing the following information for each student in that group: ● Student Name ● Current School ● Grade Level ● Enrollment History ● Referrals and Suspensions ● Attendance History	Medium

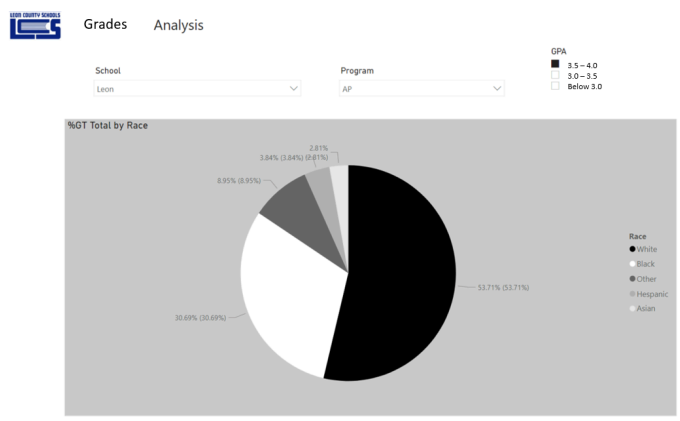
	• Grade Summary • Assessment History	
List View	Data card view should be the default, but you can switch to a list view of the data. The list view report should be exportable to an Excel file or CSV.	Medium
Student Population	Data will be presented for all students currently or previously enrolled at a Leon County Schools Pre-K – 12 school. Adult Education and Charter School students will not be included in this tool.	High

Requirements Specific to Secondary Programs Dashboard:

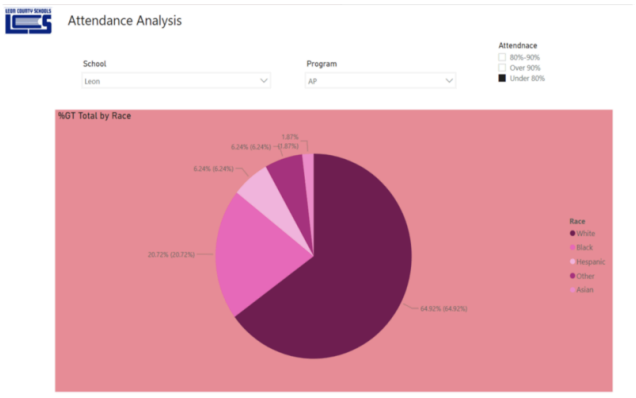
Feature:	**Description:**	**Priority:**

Program Summary vs. Entire Population	A visualization will exist that shows a break-down of the entire student population based on the filter option selected. The filter options that will exist will be:
	• Ethnicity/Race
	• Gender
	• Residence Zip Code
	• Age
	• Lunch Status (Free, Reduced, Ineligible)
	• ESE and 504 Status
	• ELL Status
	• Feeder/Prior School
	• Family Situation
	  o Multiple Parent
	  o Single Parent
	  o Homeless
	• Zoned School
	• Grade Level
	• Cohort (Year Entering 9th Grade)
	
	Four Additional visualizations will also display with each one showing the same data for each of the four secondary programs listed below.
	• Advanced Placements (AP)
	• International Baccalaureate (IB)
	• Dual Enrollment (College or University)
	• Honors
		High

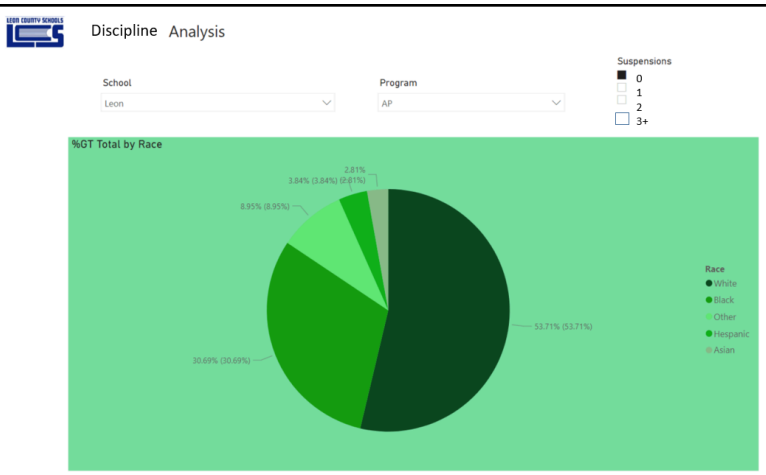
	 These visualizations should be longitudinal with a data slicer for year so we can compare data for the past three years. The purpose of these visualization to ensure access to these secondary programs is equitably available to all students regardless of race, gender, or other demographic. Putting the breakdown of these programs side-by-side with the overall district demographics will allow the user to identify potential inequities.	
Analysis	Additional visualizations are required for this dashboard to analyze if entry criteria for these programs is fair for all student groups and to identify potential entry barriers. Once data is filtered by student demographics, visualizations should exist that can be filtered by school (with a selection for all schools) and secondary program (or all programs) to allow data to be further broken down by: ● Grades/GPA o 3.5 – 4.0 o 3.0 – 3.5 o 2.5 – 3.0 o 2.0 – 2.5 o Below 2.0	High



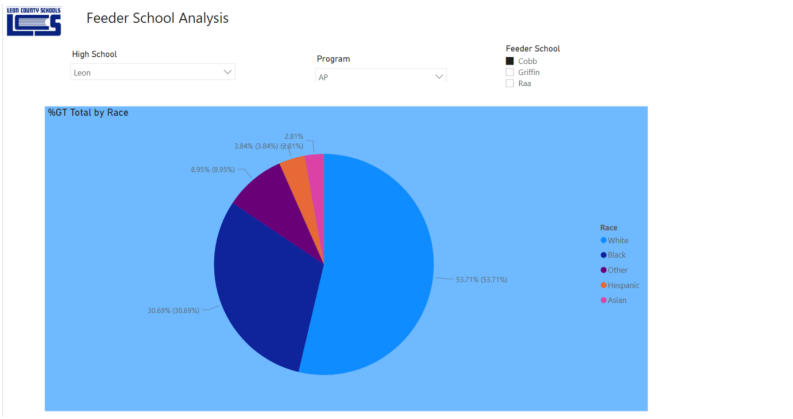
- Attendance
    - Above 90%
    - 80% to 90%
    - Below 80%



- Discipline
    - Total Referrals for the last three years
        - Zero
        - One To Two
        - Three To Five
        - Five to Ten
        - More than Ten
    - Total Suspensions for the last three years
        - Zero
        - One
        - Two
        - Three or more

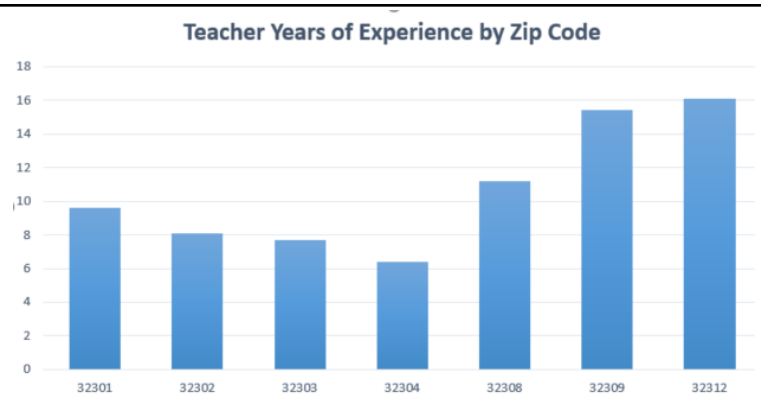
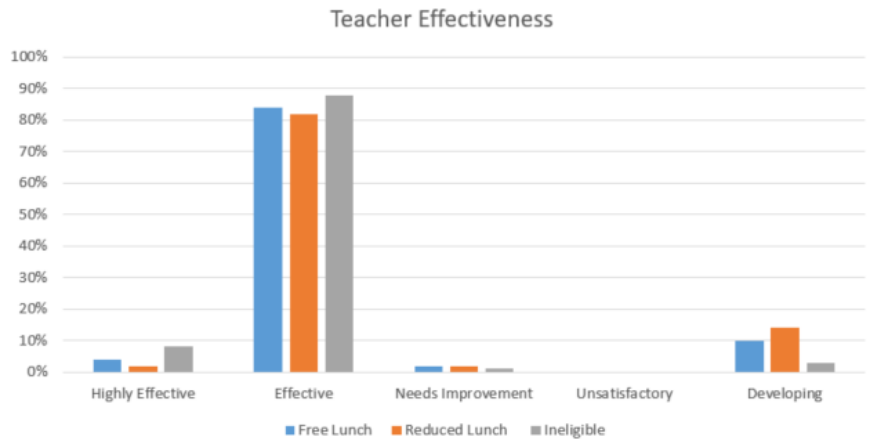


- Assessment Results
    - Average State Assessment Score for Grades 3-9 (Reading and Math) (should contain and additional data slicer for Grade Level)
        - Level 1
        - Level 2
        - Level 3
        - Level 4
        - Level 5
    - Civics Scale Score (Achievement Level 1-5)
    - AP Exam (Level 1-5)
    - IB Exam (Level 1-7)
    - Algebra EOC (Level 1-5)
    - SAT/Pre-SAT
        - 1400+
        - 1300-1400
        - 1100-1300
        - Below 1100
    - ACT/Pre-ACT
        - 29-36
        - 24-28
        - 18-23
        - Below 18
- Prior Schools
    - For High Schools, show the Leon County Middle School the student most recently attended including one additional school for “Non-LCS School” as a catch all for students with no previous years’ enrollment data

	o For Middle Schools, show the Leon County Elementary School the student most recently attended including one additional school for "Non-LCS School" as a catch all for students with no previous years' enrollment data 	

Requirements Specific to Teachers Dashboard:

Feature:	**Description:**	**Priority:**
Access to Experienced Teachers	This first visualization will seek to analyze if students across different demographic groups have equitable access to experienced teachers. The theory is that students in lower income areas do not have the same access to experienced teachers because more experienced teachers seek employment at schools in higher income areas so teachers in lower income areas possess less teaching experience. The main visualization for this dashboard will show a break-down of all students by the selected filter and the average years of experience for all their teachers.	Medium

	 This is an example of a visualization showing the average years of experience for students living in different Zip Codes across Leon County.	
Access to (Highly) Effective Teachers	The same analysis will also be done to determine if students have equitable access to teachers rated as effective and highly effective. For this visualization, we will need to use teacher evaluation data. Teachers receive an overall annual rating according to the scale below: 4 – Highly Effective 3 – Effective 2 – Need Improvement 1 – Unsatisfactory 0 – Developing Teacher (first three years) A visualization will exists that will show what teachers that students had by rating broken down by the selected demographic. For example, if the demographic selected was Lunch Status, the visualization would look something like:  This will capture data for the last three years with a teacher's rating being the evaluation score they received for the previous year. For example, if student Miguel had Ms. Apple in 18/19 and	Medium

	Ms. Apple was rated “effective” in 17/18, she is counted as an effective teacher for Miguel. If Susie has Ms. Apple in 19/20 and Ms. Apple was rated “highly effective” in 18/19, Ms. Apple is considered a highly effective teacher for Susie.	
Grades and Assessment	For the teacher analysis, users would like to analyze if a teacher’s classroom instruction is properly aligned to state standards and helps students prepare for the end of year state assessments. For this analysis, it is believed that a scatter plot with grades (GPA) on one axis and state assessment results on the other axis would be the best tool to use. The assessment would depend on the student’s grade level. ● Grades 3-9 – Florida FS Assessment ● Grade 9 – Civics End of Course Exam ● Grades 8-12 – Algebra End Of Course Exam This visualization should contain drill-down capabilities so that the user could get a list of teachers who have a large variance between the classroom grades they have given and state assessment results. For example, if a teacher is giving all As and Bs but their students are scoring 1s and 2s (out of 5) of the state assessment, users need to be able to identify these teachers for potential training.	Medium

Requirements Specific to General Education Dashboard:

Feature:	**Description:**	**Priority:**
Time in Instruction	In the state of Florida, special needs students may take special classes (known are Access courses) as part of a special curriculum to receive a special diploma. A special diploma may prevent a student from gaining entry to a college or university. For that reason, the state also allows special needs students to pursue a standard diploma if they would like. Special needs students pursuing a standard diploma are eligible to receive additional services, however, the state is clear that these services are not to interfere with their access to instruction for general education instruction. School districts are required by the state to monitor what is referred to as “time in instruction” for special needs students to ensure they have the same equitable	Low

	access to general education as every other student. Leon County currently does not have a reliable tool for monitoring “time in instruction”. Special services for special needs students do appear on a student’s schedule as a “pull-out”. Users would like to have a dashboard that analyzes student’s schedule and highlights any students who may have too many pull-outs and may lack an equitable allotment of “time in instruction”.	

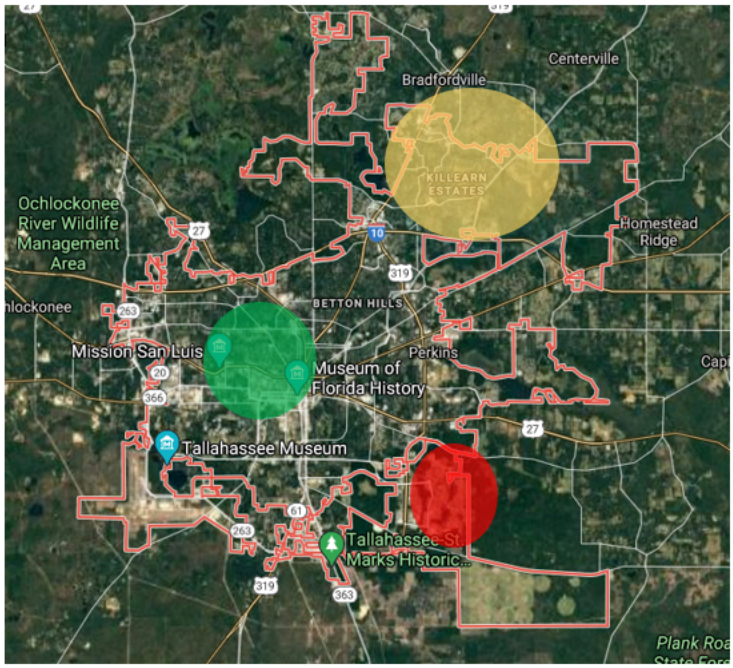
Requirements Specific to Discipline Dashboard:

Feature:	**Description:**	**Priority:**
Discipline Data By School	Leon County stakeholders believe that harsh discipline action may lead to students becoming unmotivated and the inequitable administration of discipline may lead to inequities in student access to special programs, clubs, and extracurricular activities. But, the administration of discipline is also important to maintain a safe learning environment for all students. For these reasons, it is important that we have tools to ensure discipline is being administered equitably across all of our schools. We need a dashboard that contains visualizations that show how discipline is being administered across all schools and that data will be able to be filtered by all the student demographics listed earlier. The user should be able to see the number of classroom referrals, common area referrals (cafeteria, gym, etc.), and bus referrals. The user should also be able to see statistics related to discipline outcomes such a Suspensions, Detentions, Expulsions, and In-School Suspension (or Opportunity for Improvement). We also need to see the number of severe incidents (referred to as SISER incidents in Florida) input by the schools and the resulting actions. All these visualizations should include drill-down capabilities allowing analysis of staff that input discipline incidents.	Medium
Are Resultant Actions Equitably Used?	One visualization that must exist for this dashboard will seek to analyze if outcomes are being equitably administered for similar offenses across all schools. This	Medium

	visualization will look at similar discipline incidents by type (Alcohol, Arson, Bullying, etc.) across schools and compare outcomes (Suspension, Detention, Parent Conference, etc.) by the number of occurrences to see if outcomes are being administered consistently across the district or if they vary greatly by school. Drill-down capabilities should exist so the user can see the staff member who created a referral and who assigned the outcome.	

Requirements Specific to Assessment Dashboard:

Feature:	**Description:**	**Priority:**
Assessment Equity	Stakeholders need to analyze if the assessment of students is equitable within the district. For that reason, they need a dashboard that will allow them to analyze if the assessments we use produce equitable outcomes across different demographic student groups. Of primary focus is Florida state assessments. Users should be able to select different demographics and compare performance on all state assessments. This tool should also allow for the same analysis to be done for other assessments such as the AP exam, the IB exam, the ACT, and the SAT. For equitable access analysis, ensuring students have the tools they need to make proper reading proficiency gains in early grade levels is also very important. We measure reading proficiency gains using STAR and iReady assessments. Users should also be able to analyze results of these assessments and compare data across different demographic groups and across different school years to ensure these tools are assessing student equitably and fairly.	Medium
Assessment Heat Map	Stakeholders expressed a need to analyze equitable administration of assessments geographically and felt that the best way to view this data would be in a heat map. Users should have a heat map highlighting areas where student state assessment results on average are above 3 in green, 2-3 in yellow, and below 2 as red.	Low


Centerville
Bradfordville
KILLEARN ESTATES
Ochlockonee River Wildlife Management Area
Homestead Ridge
BETTON HILLS
Mission San Luis
Museum of Florida History
Perkins
Tallahassee Museum
Tallahassee St. Marks Historic...
Plank Roa