Climate models project warming climate and sea level rise (SLR) globally, in part because of melting glaciers and ice sheets (i.e., the cryosphere). Geoscience in secondary education has a potential positive influence on individuals eventually studying geoscience fields. Southern coastal communities are projected to be the most impacted by SLR in the United States. Within these communities and throughout the Greater South, socially vulnerable populations are disproportionately affected by climate change, face more barriers to funding climate-resilient infrastructure, and are historically excluded from geoscience fields.

We evaluate capacities as the degree to which a community has adequate access to resources, inclusion in opportunities, and connections to local environments that support the implementation of tailored, actionable approaches in reforming systemic issues in educational, political, and industrial spheres.

Geoscience in secondary education has a potential positive influence on individuals eventually studying geoscience fields.

**Access to Education Material:**
Understanding how accessible educational resources are to educators
- How do educators access material relevant to Earth Science topics?
- What does hands on Earth Science experience look like within the classroom?

**Connections Between Wider Earth Systems:**
Evaluating topic depth within Earth science classes
- How are the Earth’s spheres being taught in the classroom?
- Are students taught about the connections between wider Earth systems and local environments?

**The Cryosphere’s Place in Education:**
Identifying spaces to include the cryosphere in existing curricula
- Does the curriculum connect the cryosphere and sea level rise?
- Are there spaces to include the cryosphere in current curricula? (e.g., the water cycle)

**Local and Global Climate:**
Incorporating connections between local environmental changes and global-scale climate change in educational experiences
- Are students using local climate data to identify trends?
- Are students taught about human impacts on the environment in their local and global communities?

**Next Steps**
- Applying this framework to evaluate curricula specifically in the Southern United States
- Develop actionable literature for the cryosphere community to encourage active participation

**References**