

# Science and Technology (S&T) Legislative Landscape: Mapping State-Level S&T Legislation in the US

by

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Spring 2009

## Background

Over the last four years, the Georgia Tech Research Institute's Office of Policy Analysis and Research has supported the Georgia General Assembly's Science and Technology (S&T) legislative committees with policy analysis and expert testimony. This role provides OPAR a unique perspective on the S&T policy agenda in Georgia. In our duties, we are often called upon to prepare policy bulletins on S&T topics, including health information technology, biotechnology for economic development, and science, technology, engineering, and math (STEM) education. Because this research often results in comparative analysis with other US states, we recognized an opportunity not only to systematize this research, but also to provide a valuable service to the S&T policy community. The Science and Technology Legislative Landscape Project is an effort to do so. This research will inform state-level policymakers of nationwide trends in science and technology policy.

## Methodology

The Science and Technology (S&T) Legislative Landscape project began in Spring 2008. Initial research prompted the question: "Which US states have standing legislative Science and Technology committees?" Results found 37 standing committees within 23 states. After identifying these committees, our research focused on identifying the legislative trends within these committees. This inquiry resulted in a list of keywords related to S&T. While every state does not have a legislative committee dedicated to S&T, every state does consider S&T legislation. Once this list of approximately thirty keywords was compiled, we began the process of collecting all bills introduced in each state's legislature related to the keyword during the 2007-2008 session. With the completion of this phase, we are continuing the collection of S&T policy data for the 2009 sessions in order to produce a full-length nationwide analysis by spring 2010.

## Initial Findings

Researchers focused on ten states in the Southeast for the initial phase: Alabama, Florida, Georgia, Kentucky, Louisiana, Mississippi, North Carolina, South Carolina, Tennessee, and Virginia. Researchers conducted keywords searches on each of these states during the most recent legislative session.

- A total of *463 pieces of legislation* relating to science and technology were *introduced* in the ten southeastern states surveyed. Of these bills, *102 pieces (22%)* of legislation were *enacted*.

- *Over half (54.8%) of all legislation* introduced related to *five keywords*: Telecommunications (63 bills), Renewable Energy (57 bills), Biotechnology (46 bills), Alternative Fuel (45) bills, and Innovation (43 bills).
- *Over half (51.6%) of all legislation* was introduced by three states: Florida (94 bills), Virginia (75 bills), and North Carolina (70 bills).
- *Kentucky introduced the fewest bills* related to S&T with 14 bills while *Florida was the most active* with 94 bills.

Our initial phase research on the Southeastern states has already begun to show trends in S&T Policy that will be useful for policymakers and other stakeholders as our data collection continues. With the fourth phase of the project (data collection for the 2009 sessions) approaching, we will be collecting data on all 50 states in order to do a national analysis of the state of science and technology state-level legislation, identify the current leaders, and anticipate trends that are developing as policymakers address the issues and opportunities that the influx of new technologies is presenting our society.

### **Challenges:**

There are numerous challenges with OPAR's Science and Technology Legislative Landscape. A few are highlighted here:

- Data collection and deciding how to select bills that meet our keyword criteria: We have designated a detailed list of criteria that an introduced bill must meet before being included in our data, including specifying a frequency that the keyword is mentioned in the bill and considering the overall purpose of the bill itself in order to prevent false positive keyword matches.
- State legislative sessions: States have their legislative sessions at different times of year making requiring that we create a schedule for data collection in order not to omit legislation due to archiving.
- Our methodology is a broad rather than deep: We are currently counting the raw instances of introduced and enacted legislation. We do not presently analyze the content of the bills.
- This analysis is immature in that it only looks at legislation rather than other government engagement and private sector activity.

### **Future Research Questions:**

Beginning in Summer 2009, we will start data collection on the 2009 legislative sessions. We plan to finish data collection and provide with a full analysis of state-level science and technology activity by Spring 2010. In this year's analysis and in future years', we hope to address several questions that will be extremely valuable to policymakers nationwide such as:

- Which states are most active in the fields of science and technology, in terms of legislation as well as other activities?
- Which emerging technologies are of most interest to state legislatures?
- Can we develop a legislative typology that characterizes the main types of state-level bills (regulation, funding, study committees, etc)?
- How can stakeholders use public policy to increase the availability and use of future technologies?