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Date: February 25, 2019

Re: POLS6310 Spring 2019, class 06

**Introduction**: A brief description of your policy domain, the specific policy you are exploring, and the importance of the problem you are addressing.

* Policy domain: Technology Transfer Policy
* Specific policy:
  + Public Law 97-219 Small Business Innovation Act of 1982
    - Current policy design
      * Established set-aside of 2.5% of extramural research and development budgets in excess of $100 million for research and development awards to small businesses under the SBIR program.
      * Must be reauthorized periodically.
    - Legislative predecessors and successors
      * S.881 - Small Business Innovation Development Act of 1981 - 97th Congress (1981-1982)
      * H.R.4326 - Small Business Innovation Development Act of 1982 - 97th Congress (1981-1982)
      * Public Law 102-564 - Small Business Research and Development Enhancement Act of 1992 - 102nd Congress
      * Public Law 106-554 - Small Business Innovation Research Program Reauthorization Act of 2000 - 106th Congress
      * Public Law 112-81 - 2012 Defense Reauthorization Act - 112th Congress (2011-2012)
      * Public Law 114-328 - 2017 National Defense Authorization Act - 114th Congress (2015-2016)
* Importance of Problem:
  + Problem:
    - In the late 1970s and early 1980s, the United States economy was stagnant and its global competitiveness was eroding.
      * Technological innovation was believed to be the remedy for both problems.
      * At the time, academic research suggested that independent innovators and small businesses were responsible for a disproportionate share of significant innovation but received less than 4 percent of all Federal research and development funding.
      * In 2018, the Federal government spent over $143 billion on research and development.
    - Dissatisfaction with the participation rate of small businesses in Federal research and development.
      * Since the late 1970s, the participation rate of small business has held steady a roughly 4 percent of all Federal research and development funding.
      * Small businesses are an under-utilized resource that can generate the technological innovation needed to reverse economic stagnation and maintain the global competitiveness of the United States.
    - Dissatisfaction with the amount and rate of transfer of technologies derived from Federally-funded research and development to the private sector to benefit the public interest.
      * Specific issues:
        + Technology transfer is slow and requires significant effort and resources (i.e., efficiency).
        + Technology transfer policy only results in a very small number and percentage of technologies derived from Federally-funded research and development being transferred to the private sector to benefit the public interest (i.e., effectiveness)
      * This has been a concern since the end of the Second World War.
      * Key priority for the past three presidential administrations:
        + Donald J. Trump Administration
        + Barrack H. Obama Administration
        + George W. Bush Administration

**Legislative History**: The problem the legislation was meant to address, the key provisions of the policy you are highlighting for analysis, and the current state of the policy (i.e. is it firmly established or are there attempts at repeal or modification), the key stake holders (pro and con) who are focused on the issue.

* Problem the legislation was meant to address:
  + Staunching and reversing the economic stagnation that began in the United States in the latter part of the 1970s.
  + Reversing trends in technological innovation that were believed to be a threat to the continued global competitiveness of the United States.
* Key policy provisions highlighted for analysis:
  + Four stated objectives for the policy:
    - To stimulate technological innovation;
    - To use small business to meet Federal research and development needs;
    - To foster and encourage participation by minority and disadvantaged persons in technological innovation; and
    - To increase private sector commercialization of innovations derived from Federal research and development.
  + Original policy design
    - Established set-aside of 1.25% of extramural research and development (R&D) budgets in excess of $100 million for R&D awards to small businesses.
      * 0.2% in fiscal year 1983
      * 0.6% in fiscal year 1984
      * 1.0% in fiscal year 1985
      * 1.25% thereafter
    - Established set-aside of 0.3% of extramural R&D budgets in excess of $10 billion for R&D awards to small businesses.
      * 0.1% in fiscal year 1983
      * 0.3% in fiscal year 1984
      * 0.5% in fiscal year 1985
      * 1.25% thereafter
    - Must be reauthorized periodically.
  + Analysis focuses on the first and second objectives.
    - Most of the debate seemed to focus on the role of small business in technological innovation.
      * To stimulate technological innovation
      * To use small business to meet Federal research and development needs
* Current state of policy:
  + Firmly established.
    - Policy has been in place for nearly 40 years.
    - There have been no significant modifications to the policy design since its original enactment.
  + Unsuccessful bills introduced to amend the act:
    - H.R.448 - SBIR Enhancement Act of 2011 - 112th Congress (2011-2012)
      * Increase minimum set-aside for SBIR from 2.5% to 5% of extramural research and development budgets in excess of $100 million
      * Increase minimum set-aside from 0.3% to 0.6% of extramural research and development budgets in excess of $1 billion.
      * Increases maximum award amounts from $100,000 to $200,000 for Phase 1 grants and from $750,000 to $1.5 million for Phase 2 grants.
    - H.R.2772 - SBIR and STTR Enhancement Act - 111th Congress (2009-2010)
      * Increases award levels.
      * Provides authority for agencies to award sequential Phase 2 grants.
      * Provides authority for agencies to award Phase 2 grants to applicants that have not been awarded Phase 1 grants.
      * Requires agencies to issue solicitations at least twice per year.
      * Establishes reporting requirements.
    - H.R.4213 - Amend the SBIR program to increase award amounts - 110th Congress (2007-2008)
      * Allows agencies to increase award amounts.
      * Requires agencies to adjust award amounts every five years to reflect economic adjustments and programmatic considerations.
    - H.R.4684 - Amend the SBIR program to increase award amounts - 109th Congress (2005-2006)
      * Allows agencies to increase award amounts.
      * Requires agencies to adjust award amounts every five years to reflect economic adjustments and programmatic considerations.
* Key stakeholders focusing on the issue:
  + Proponents
    - There were more than 50 co-sponsors for the original bill in the Senate by the time of the first hearings.
    - In the end there were 84 co-sponsors for the bill in the Senate.
    - Key proponents include:
      * Roland Tibbets (Senior Program Director, National Science Foundation)
      * Senator Paul Tsongas (D-MA)
      * Senator Edward “Ted” M. Kennedy (D-MA)
  + Opponents
    - Primary opposition was based on the belief that the policy reduced funding opportunities for their researchers and took away from basic research.
    - Also opposed the set-aside as method of distribution research and development funding.
      * Argued it changed the selection criteria away from research excellence and would result in the funding of sub-par research and development.
    - Key opponents
      * Primarily tenured and tenure-track faculty and research faculty and research universities.
      * Senior leaders and researchers at research laboratories that must compete for federal funding.
      * Executives and researchers at large research hospitals and medical colleges.
      * Leadership of the Association of American Medical Colleges.

**The Framing Arguments of Key Stakeholders**: Possible questions to answer in approaching this analysis are: do any of the frames follow the rubrics suggested by the Frameworks Institute? Did the issue move from episodic to thematic? Is the policy category being contested - redistributive, regulatory, etc.? What major morality tale is being appealed to? How are context, numbers, messengers, etc. being used? Is the policy branch or root?

* Alignment with Frameworks Institute rubrics:
* Issue type (episodic or thematic):
  + Proponents
    - Thematic in nature.
    - Issue discussed in context of economic stagnation and loss of global competitiveness if current trends persist.
* Policy category:
  + Redistributive
  + Regulatory
* Morality tale:
  + Proponents
    - Mob at the Gate
    - Rot at the Top
  + Opponents
    - Benevolent Community
    - Triumphant Individual
* Context:
  + Proponents
    - Economic stagnation that began in the late 1970s
    - Loss of global competitiveness
  + Opponents
    - Did not seem to establish a social context for their argument.
* Numbers:
  + The facts seemed to fit the frame of proponents.
  + Neither side seemed to discuss numbers in a social context to provide meaning and enhance comprehension.
* Messengers:
  + Proponents
    - Prominent U.S. Senators who supported the policy seemed to be viewed as being above the fray and primarily concerned with the well-being of the nation rather than any particular interest group.
    - Presidents of businesses with more than 1,000 employees who would not directly benefit from the policy advocated for it.
* Approach (branch or root):
  + Branch approach
  + Originally began as a pilot program only within the National Science Foundation.
  + The policy did not radically change the process and mechanisms for disbursing research and development funding.