

# Pennsylvania Residents' Perceptions and Support for Climate Change Policies

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## Background

Pennsylvania ranked fourth in the United States in total carbon emissions in 2019. Policies are under consideration in the Pennsylvania State legislature. Public support for different Pennsylvania specific policies is lacking.

## Current Research

- We conducted a web-based survey of 464 Pennsylvania citizens.
- Participants were randomly assigned to read a brief description of each policy or a generic description of a policy that could be implemented in Pennsylvania.

## Method

- The present study assessed Pennsylvanians perceptions of three climate policies under consideration in Pennsylvania in terms of policy support and anticipated environmental, social, individual economic, and business economic impacts.
- The three policies were:
  1. A change to the Gross Receipts State Tax which we called the Carbon Action Tax Cut.
  2. The Regional Greenhouse Gas Initiative (RGGI).
  3. The Renewable Portfolio Standards (RPS).

## Research Questions

### Policy support

- RQ1:** Which of three policies that could be implemented in PA (the RPS, RGGI, a Carbon Tax cut) do PA residents like best?
- RQ2:** Does policy support vary by political party?

### Anticipated impacts

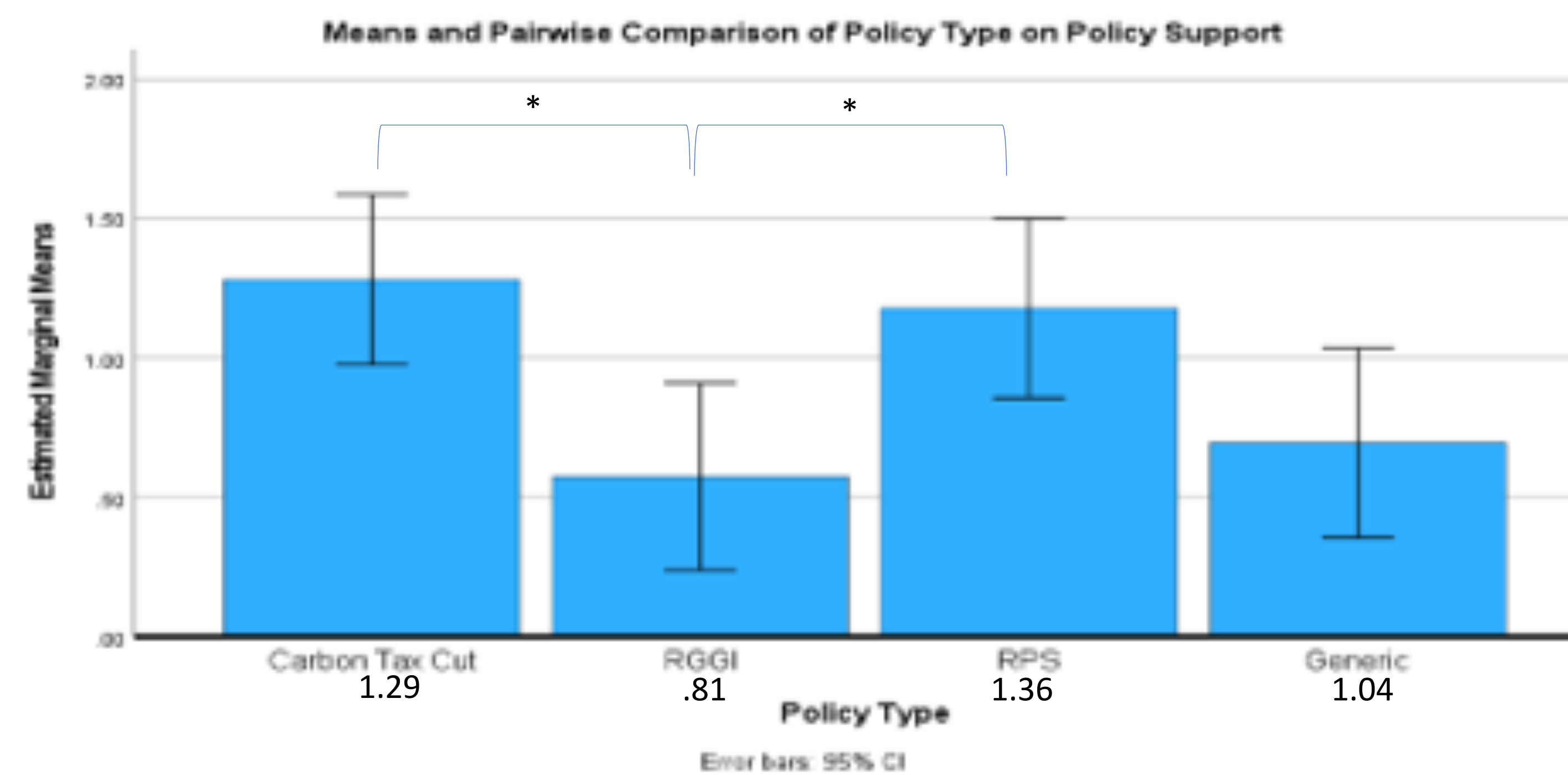
- RQ3:** What impacts do people anticipate?
- RQ4:** Are anticipated impacts related to support?

## Hypothesis

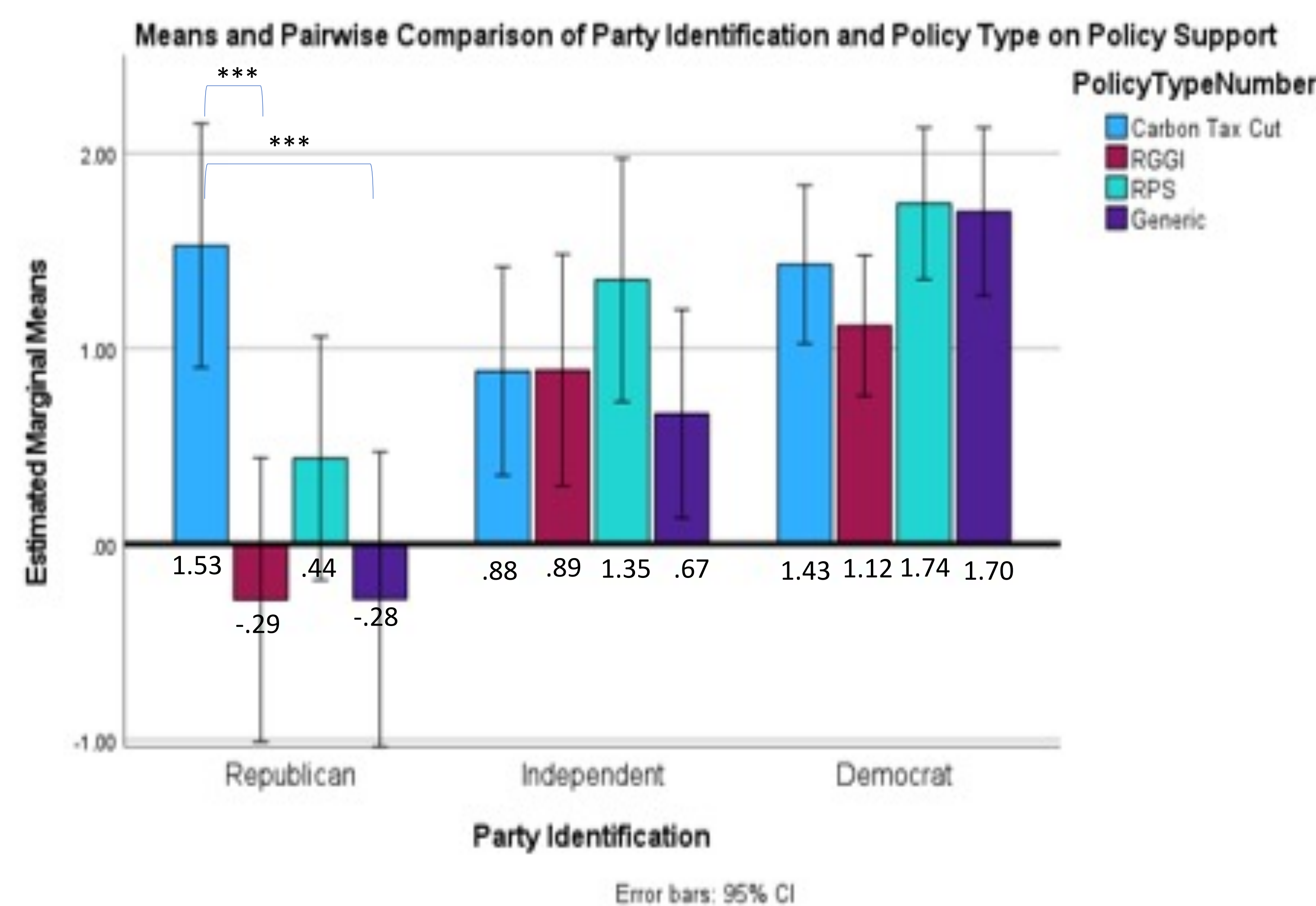
- We anticipated Democrats liking the policies more than Republicans but explored preferences among the policies.
- We hypothesized that perceiving favorable environmental, economic, and social impacts will be positively correlated with policy support.

## Results

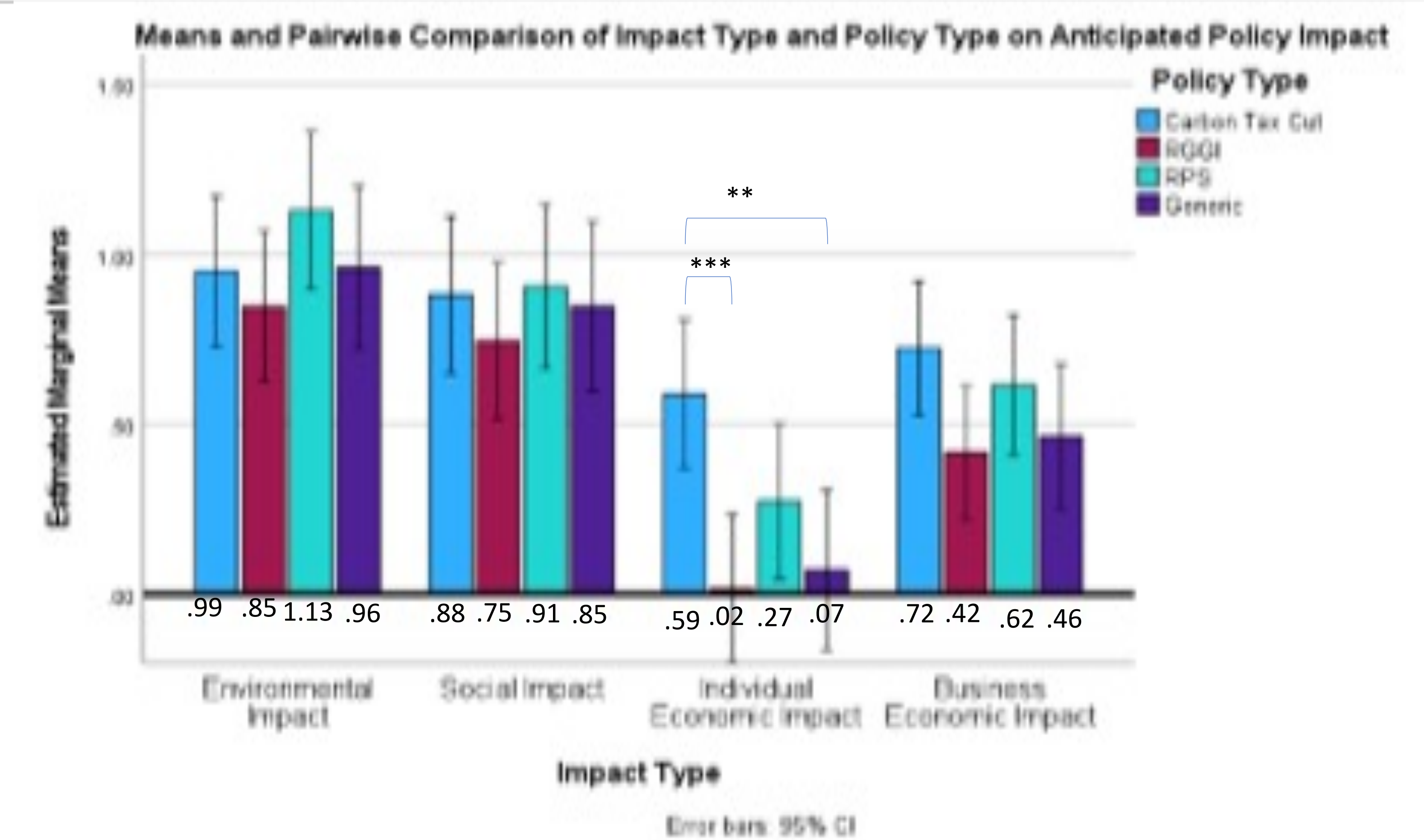
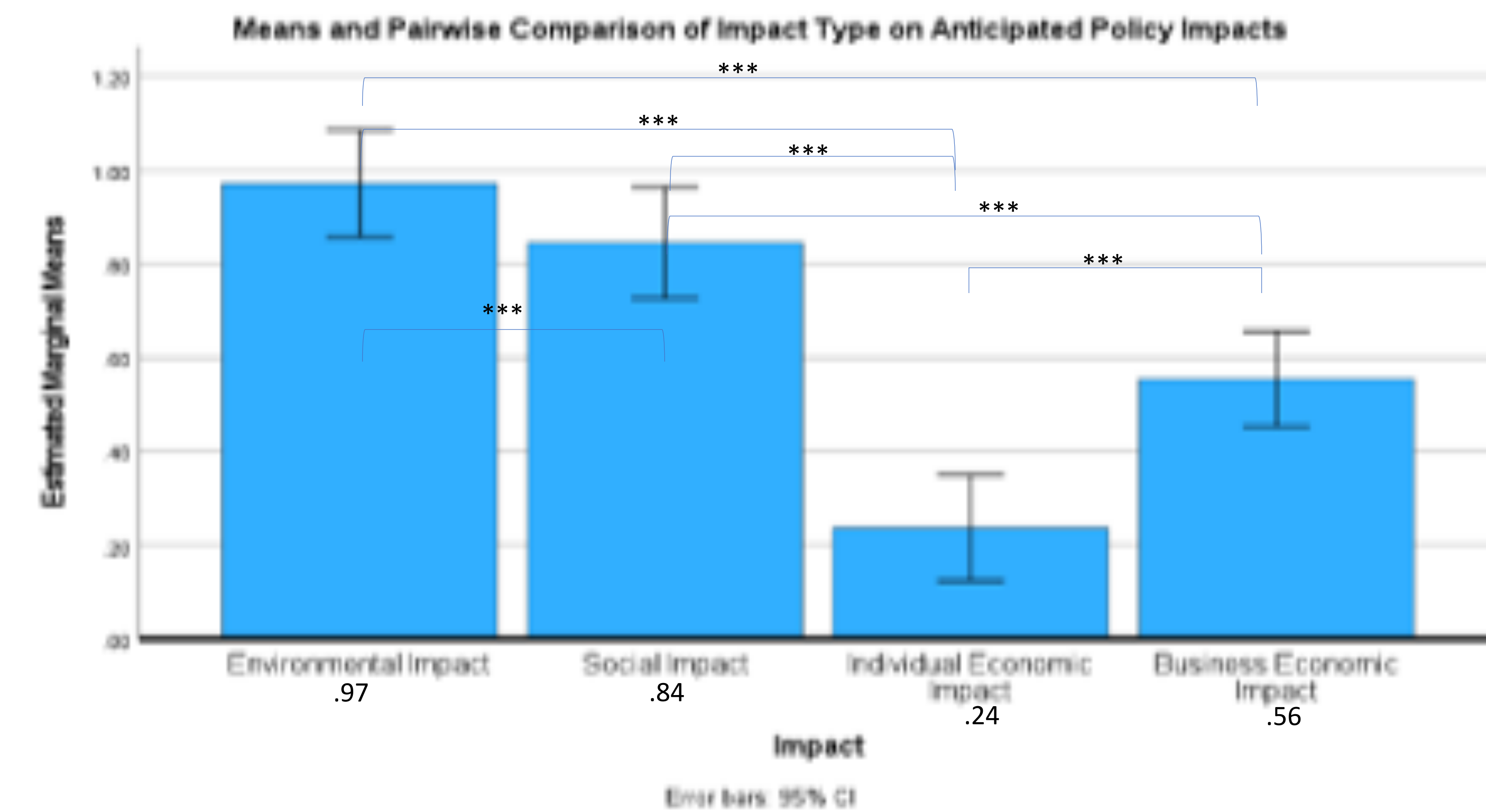
**RQ 1:** Participants somewhat to moderately supported each policy type,  $F(3,364) = 2.80, p = .04$ , supporting the Carbon Tax Cut and RPS the most.



**RQ 2:** Policy support differed based upon type of impact and type of policy,  $F(6, 336) = 2.69, p = .02$ . Significant policy support differences were found only for Republicans.



**RQ 3:** Participants anticipated somewhat to moderately positive impacts,  $F(9, 355) = 4.132, p < .001$ .



**RQ 4:** Environmental impacts,  $r(363) = .62, p < .001$ , social impacts,  $r(363) = .73, p < .001$ , individual impacts,  $r(363) = .71, p < .001$ , and business economic impacts,  $r(363) = .70, p < .001$ , were positively correlated with policy support.

## Discussions and Limitations

- Democrats and Independents like all the policies equally. Republicans like the Carbon Tax Cut policy the best. Anticipated Impacts are associated with support. All participants anticipated more positive individual economic impacts for the Carbon Tax Cut policy.
- Limitation: Participants only had brief descriptions of the policies.

## Conclusions and Future Research

- The Carbon Tax cut policy is a good option for future climate policy in Pennsylvania because it appeals to Democrats, Republicans, and Independents.
- Future research could have participants compare policies rather than rate one policy.