Assignment #8

#1: Willingness to Pay for water efficiency

You conduct an online survey among 280 California residents about their willingness to pay for investment in a new almond production technology that is more water efficient. The results show that the willingness to pay to save one gallon of water per pound of almonds produced, varies from -3 dollars to 15 dollars with an average of 8 dollars and a standard deviation of 1.5 dollars. Construct a 95% confidence interval for the dollar willingness to pay for one gallon of water saved per household in your state.

2: 2018 plastic bag ballot proposition

Prop 67: A Yes vote approves, and a No vote rejects, a statute that prohibits grocery and other stores from providing customers single-use plastic or paper carryout bags but permits sale of recycled paper bags and reusable bags. Fiscal Impact: Relatively small fiscal effects on state and local governments, including a minor increase in state administrative costs and possible minor local government savings from reduced litter and waste management costs. In a poll of 117 online survey respondents, you find that 64% of the respondents state that they are in favor of prop 67. Build a 95% confidence interval for the percentage of the population that is in favor of the Proposition 67.

#3: Case 1 contin from Lecture

Case Study 1: A Resources for the Future Survey in 2019.

Random National sample N=1000, with Partisan divisions as follows: N=300-230-350 Democrats-Republicans-independents

Question "Global Warming is a very serious problem for the US? YES/NO.

51% of a national random sample of N=1000 adults surveyed said Yes. the percent of democrats agreeing is in the second column in the figure below and the sample size of republican- democrat and independent split is as follows

(a) Please construct a 95 % confidence interval for democrats agreeing with "Global Warming is a very serious problem for the US ?

Figure 1: Resources For the Future Survey - Some Results

| | | U.S. government should do great deal/a lot | Global warming is a "very" serious problem for U.S. |
|---|--|---|--|
| | All | 61% | 51% |
| Case Study 1: | Democrats Republicans Independents | 84 32 63 | 78 25 48 |
| A Kesources for | Liberals Moderates Conservatives | 85 63 42 | 77 50 36 |
| Survey in 2018 | Very liberal Very conservative | 338 | 77 27 |
| 10101 | Age 18-39 50+ | 70 | 61 44 |
| | College graduates Post-graduates Non-college graduates | 65 71 59 | 56 50 50 |
| Random National sample N=1000, Partisan divisions are N=300-230- | Whites Nonwhites Blacks | 53 75 81 | 46 62 71 |
| independents | Hispanics | 75 | 09 |
| https://www.langerresearch.com/wp-content/uploads/1198a1Global- | Evangelical white Protestants Non-evangelical white | 40 | 32 |
| Warming.pdf | Protestants White Catholics No religion | 53 59 72 | 8 4 4 0 8 8 8 8 |
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