

Supplementary Material

An estimate of the marginal annual economic contribution of wild-pig hunting in Texas

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Supplemental material B

For the sample non-response bias analysis, three ordered logistical regressions were carried out (e.g., Fullerton et al. 2009). The first was with the categorical response variable being item 7, the second regression was with the categorical response variable being item 14, and the third was with item 19. The explanatory variable (numeric) for all three regressions was the number of days the respondent took to complete the survey. For items 7 and 14, selecting option 1 or 2 (refer to **Figure 3** and **Figure 2**) would be expected by hunters who strictly or mainly prefer to hunt wild pigs. For item 19, selecting 4 or 5 (refer to **Figure 1**) would be expected to meet the same standard.

Based on jitter plots for each of the response variables and the number of days to respond to the survey (**Figure S.1, Figure S.2, Figure S.3**), it was thought that there may be significant differences between response selection (groups) for item 7 (excepting group 5) with respondents who are exclusively or primarily wild pig (WP) hunters (selecting options 1 or 2) taking less time to respond to the survey than those who equally, primarily, or exclusively hunt native game over wild pigs. Conversely, there was not a clear relationship between all groups in item 14. The visual for item 19 demonstrated that respondents who absolutely do not purchase their hunting license for hunting wild pigs took longer to respond to the survey than other groups, but differences between groups was otherwise not clear.

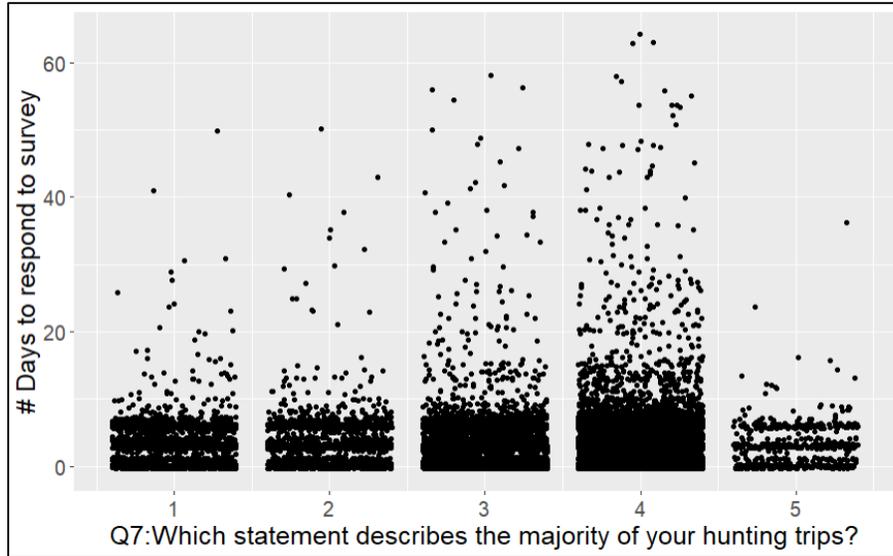


Figure S.1. Jitter plot to consider non-response bias based on item 7 [Hunting trip category]

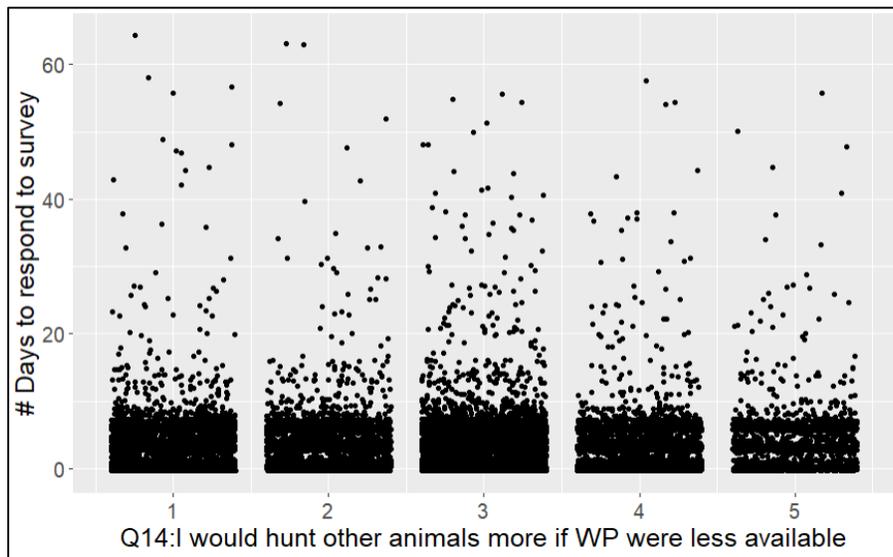


Figure S.2. Jitter plot to consider non-response bias based on item 14 [Hunt other animals]

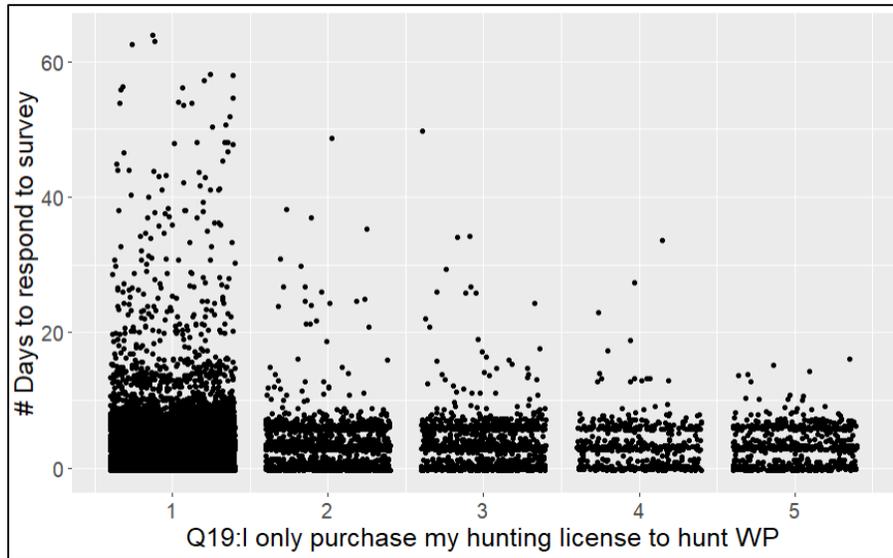


Figure S.3. Jitter plot to consider non-response bias based on item 19 [License only for pigs]

Results of the ordered logistical regressions for detection of a non-response bias are presented below in **Table S.1**; t-values closer to 0 indicate lower likelihood that there are significant differences between groups based on the number of days to reply to the survey. No results were statistically significant ($p \leq 0.05$), so it was concluded that there is no detection of a non-response bias.

Table S.1. Ordered logit results for items 7, 14, or 19 regressed on # of days to reply to the survey

Survey Question	n	Coefficient	Std. Error	t-value	p-value
7. Which statement describes most of your hunting trips?	26,138	0.004	0.003	1.340	0.180
14. I would go hunting for other animals more if wild pigs were less available to hunt.	23,986	0.003	0.003	0.905	0.365
19. I only purchase my hunting license to hunt wild pigs.	23,985	0.003	0.004	0.709	0.479

References

Fullerton AS (2009) A conceptual framework for ordered logistic regression models.

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