

The 2014 NRG Astrodome Survey

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EXECUTIVE SUMMARY

The 2014 Astrodome Survey provides information on the opinions of a representative sample of 600 Harris County adults regarding the future of the NRG Astrodome. The survey was conducted (in both English and Spanish) between July 22nd and July 31st.

The survey was carried out against the backdrop of Proposition 2 --- a bond issue of \$217 million dollars to renovate the Astrodome that was voted down in November of 2013. In this survey Harris County residents were asked to consider a reutilization of the Astrodome site. The specific reuse is a proposal for a private/public financed reuse of the NRG Astrodome site that would be similar to Discovery Green in downtown Houston. This reutilization would include a visitor's center/museum complex in the center of a green space that resembles the NRG Astrodome's current structure. The reutilization is contrasted with the most prominent alternative proposal currently on the table: leaving the Astrodome site in its current state for the time being until such a time that a viable restoration plan emerges. No other alternative proposals are included in the study since at the present time no other proposals are the subject of serious consideration.

The survey respondents were asked to consider and provide their opinion on the following:

- Assess the current private/public reuse proposal
- Assess the proposal of keeping the Astrodome in its current state for the time being
- Choose between the private/public reuse proposal and the proposal of keeping the Astrodome in its current state for the time being.

Among the key results we find that the private/public reuse proposal enjoys the support of an absolute majority (57%) of Harris County residents, with only 18% of county residents opposing the proposal. Conversely, only a third (34%) of Harris County residents support the status quo proposal of leaving the Astrodome in its current state for the time being, a proposal that is opposed by 37% of residents. Finally when asked to choose between the two rival proposals, 65% of Harris County residents prefer the private/public reuse while 35% favor leaving the Astrodome in its current state for the time being. We also find that when the 15% of the survey participants who chose not to respond to this question are included in the totals, support falls to 55% for the private/public proposal and to 30% for the status quo proposal.

The survey also considers the bivariate relationship between support for, opposition to, and choice between the two proposals and several socio-demographic respondent characteristics. We find that only in a very small number of instances did there exist a statistically significant relationship between any of these factors and respondent positions regarding these two proposals:

- **Age:** With one very minor exception, there are no statistically significant differences among age groups.
- **Education:** There exists a single statistically significant difference among education cohorts. Respondents whose highest degree was a high school diploma (or who did not finish high school) are significantly more likely than individuals with higher levels of educational attainment to support leaving the Astrodome in its current state for the time being.
- **Ethnicity/Race:** There are no statistically significant differences among ethnic/racial groups.
- **Gender:** There exists a single statistically significant gender difference with regard to the private/public reuse proposal. Women are more likely to support the proposal than men and men are more likely to oppose the proposal than women.
- **Income:** There are no statistically significant differences based on income differentials.

The survey also explored the level of support for the proposals across the four Harris County Commissioner Precincts among all respondents and among registered voters alone. While support for the private/public option both in general, and when presented as an alternative to the status quo alternative, was strong in all four precincts, it was stronger in some than others, albeit in a somewhat variable manner.

Finally, in the analysis we also explore various contextual characteristics including whether or not a respondent is a registered voter, a respondents' frequency of visits to Astrodome events in the past, and a respondent's presence at a NRG Complex event during the previous year. We find statistically significant differences for the frequency of past visits to the Astrodome, but the pattern is complex. We also find a statistically significant relationship in support for the private/public proposal based on registered voter status. Adults who are registered voters are significantly more likely to be strongly supportive of the private/public reuse proposal than adults who are not registered to vote and more likely to prefer the private/public proposal over its status quo rival than the unregistered adults in one instance.

I. INTRODUCTION

On November 5, 2013, Harris County voters rejected Proposition 2 by a margin of 53% to 47%. Proposition 2 would have authorized a bond issue of \$217 million dollars to renovate the Astrodome. Against this background this study examines Harris County resident opinion regarding a proposed reutilization of the Astrodome. The reutilization is contrasted with leaving the NRG Astrodome site in its current state for the time being.

Among the key findings is that --- in the aggregate --- 65% of the respondents support the private/public reutilization proposal while 35% favor maintaining the status quo of keeping the Astrodome in its current state until such a time that a viable restoration plan arises. We also find that when the 15% who chose not to respond (“no response”) to this question are included in the totals, support for the proposals drops to 55% and 30% respectively.

In addition, to these and other summary results, resident responses are broken down by various geographic, demographic and contextual categories including:

County Commissioner Precinct (all residents)
 County Commissioner Precinct (registered voters only)
 Age
 Education
 Ethnicity/Race
 Gender
 Income
 Astrodome Experience
 NRG Complex Experience Over Past Year
 Registered Voter Status

We link these various categories with three core evaluations/choices:

- Consider the current private/public reuse proposal
- Consider keeping the Astrodome in its current state for the time being
- Choose between the private/public reuse proposal and the proposal to keep the Astrodome in its current state for the time being

We also conduct tests of the choice between the reutilization proposal and the status quo proposal of keeping the Astrodome in its current state for the time being while including respondents who opted not to make a choice between the two options presented to them.

The remainder of this report is organized as follows. Section II presents the methodology employed. Section III provides a summary of the univariate responses to the principal variables of interest related to the two proposals as well as regarding the 2013 bond proposal vote and overall attention paid to the

Astrodome issue. Section IV deepens understanding of public support for/opposition to the above-mentioned proposals by examining the relationship between support for, opposition to and choice between the two proposals and several relevant geographic, socio-demographic and contextual factors. Section V concludes. Appendices provide various background materials including a survey methodology appendix (Appendix I), detailed statistical results (Appendix II), the visual images employed in the survey (Appendices III and IV), a map of the current county commissioner districts (Appendix V), and a list of the questions (in English) included in the survey (Appendix VI).

II. METHODOLOGY¹

This study employs a public opinion survey (in both English and Spanish) conducted by YouGov, the nation's most widely respected provider of high quality surveys conducted over the Internet. The study's principal goal is to assess the opinions of Harris County adults regarding a proposed reutilization of the Astrodome, both alone and compared to the status quo option of leaving the site in its current state for the time being. Respondents are better equipped to evaluate this type of proposal when they can actually see artist renderings of it, something that obviously cannot happen when respondents are being interviewed over the telephone. It was for that reason that the Hobby Center-Baker Institute team which crafted the instrument utilized in the survey selected YouGov to conduct the survey.

The U.S. telephone survey industry is currently experiencing a dramatic crisis. As recently as 1997 telephone survey response rates were 36%, but have dropped precipitously in recent years, falling to 15% in 2009 and 9% in 2012 according to a 2012 study by the Pew Research Center for the People & the Press (2012). Today's extremely low response rates have effectively turned most telephone surveys into "opt-in" surveys. At the same time, the rise of cell-phone only households has rendered many inexpensive IVR (interactive voice response) polls (i.e., robocalls) of limited value, since according to a 2013 study by the National Center for Health Statistics (2014) and a 2013 study by the Texas Lottery Commission (see Appendix I), almost half of U.S. (and Texas) adults do not have a landline, and IVR-only polls survey households with landlines exclusively.

One concern with Internet polls is that some adults do not have Internet access. This is a valid concern, with approximately 15% of American adults not using the Internet according to a 2013 study by the Pew Research Center's Internet and American Life Project (2013) (about a quarter of these individuals do live in a household where someone else uses the Internet at home). As is the case with

¹ Background information on overall survey methodology can be found in Appendix I.

telephone surveys, however, these coverage limitations can be easily addressed thorough the weighting of the actual respondents based on U.S. Census data. Even the most comprehensive and expensive random digit dial (RDD) telephone surveys must employ weighting techniques to insure that the data accurately reflect the target population.

The most systematic academic studies, such as a 2014 article by MIT Professor Stephen Ansolabehere and University of Massachusetts-Amherst Professor Brian Schaffner in *Political Analysis*, comparing YouGov Internet surveys with telephone surveys, conclude that the YouGov panels “produce estimates that are as accurate as a telephone survey and that the two modes differ little in their estimates of other political indicators and their correlates” (Ansolabehere and Schaffner 2014: 285). In sum, YouGov’s well-executed Internet polls do just as good a job in evaluating public opinion as do telephone surveys.

YouGov has a long track record of field-work in the Lone Star State. For the past six years it has been responsible for conducting the University of Texas/Texas Tribune Poll thrice-annual statewide survey. The UT/Tribune Poll serves as the preeminent source of data on public attitudes in Texas. For this study YouGov interviewed a sample of 660 Harris County adults. After testing the surveys for proxies of level of engagement (designed to remove surveys where the respondent carelessly sped through the survey) and matching the respondents to a sampling frame on gender, age, race and education for Harris County, a representative sample of 600 Harris County adults was created.

This process --- called sample matching --- is a model based approach to non-probability based sampling. The specific sample matching model utilized by YouGov was developed by Stanford University professor Douglas Rivers. Sample matching is best known for its application in non-randomized medical studies (Rubin 2006).

Sample matching is a two-stage sampling design. First, a sample frame is constructed from the U.S. Census Bureau’s 2010 American Community Survey with additional data from the Current Population Survey voter supplement and the 2007 Pew Religious Life Study. From the frame, it is possible to then draw a stratified random sample of people in similar size to the desired study sample. At the second stage, the sampling algorithm behind the proprietary sampling system searches the opt-in panel for respondents who most closely match the individuals in the randomly drawn target sample. The algorithm invites 2-3 matches for every respondent in the target frame. The propensity score function utilized for this matching process included age, gender, race/ethnicity, years of education and voter registration status. The resulting sample has the characteristics of a random sample.

All in all, the YouGov survey’s on-line format and ability to include artist renderings and photos provides respondents with dramatically more complete

information regarding the proposals for the future of the NRG Astrodome site that form the core of this study than would be provided in a telephone survey. And, this is done within a context where the estimates provided by YouGov Internet surveys are just as accurate as those provided by telephone surveys.

Survey methodology is more than how you select respondents. There is also the issue of how you ask the questions. Leading questions or push polling are obvious threats to a valid understanding of public sentiment. There are many ways to guard against this (Sudman and Bradburn 1982; Sudman, Bradburn, and Schwarz 1996). One way is to introduce trade-offs or choice in a question. For example, in the past there have been questions about public attitudes toward a balanced federal budget. The response has been overwhelmingly in support, but when respondents are asked to consider the cuts in expenditures or the tax increases involved in achieving a balanced budget, the level of support for a balanced federal budget falls dramatically.

Similarly, with proposals such as the Astrodome reutilization proposal it is important to link the proposal with an alternative or alternatives. Here the alternative is the most prominent proposal presented by leading individuals, public figures and organizations whose goal is to prevent the demolition of the Astrodome: that is the status quo proposal of leaving the Astrodome in its current state for now until such time that a viable restoration proposal emerges. An additional safeguard is to consider the number of neutral or non-responses. Individuals who decline to make a choice may be thinking about alternatives that are not specified, and the larger their numbers, the less likely the aggregate numbers (which can exclude these non-responses) are an accurate reflection of public opinion. We explore these safeguards in this report.

III. PUBLIC ATTENTION, THE 2013 BOND PROPOSITION, AND THE TWO PROPOSALS

Attention Paid to the Issues Surrounding the Future of the Astrodome

After receiving some background information (see Appendix VI), the first substantive question in the survey asked respondents how much attention they had paid to the issue of what to do with the Astrodome. Almost three-quarters of Harris County adults (73.7%) have paid either a great deal (25.2%) or some (48.5%) attention, with only one out of every ten respondents (10.2%) having paid no attention at all to the topic. In sum, the issue of what to do with the Astrodome is one of rather high public salience in Harris County (see Figure 1 in Section VII, which contains the six figures examined in this section).

The November 2013 Astrodome Bond Issue Proposition

Respondents were asked if they voted in the November 2013 election either for or against the \$217 million dollar bond proposal that would have transformed the Astrodome into a multipurpose convention and event center. Proposition 2 failed, with 53.43% of voters against and 46.57% voting for the proposition. Respondents who did not cast a ballot in the November 2013 election were queried on how they would have voted. Figure 2 underscores that a narrow plurality (44.2%) of the respondents either voted for or would have voted for the proposition, while 37.5% either voted against or would have voted against the proposition. Close to one-fifth of the survey population (18.3%) did not vote in the November 2013 election and were unsure about how they would have voted.

Evaluation of the Proposal for a Private/Public Reuse of the NRG Astrodome

The respondents were informed that there is currently a proposal for a private/public financed reuse of the NRG Astrodome site that would be similar to Discovery Green in downtown Houston. They were told that the proposal would include a visitor's center/museum complex in the center of a green space that resembles the Astrodome's current structure, and were provided with a link to view renderings of this proposed concept (see Appendix III for the images they viewed). Finally, the respondents were asked how they would assess their position regarding this proposal on a five-point scale: Strongly Support, Support, Neither Support or Oppose, Oppose, Strongly Oppose.

Overall, a substantial majority of respondents support the private/public reuse proposal (57.1%), with 17.2% strongly supporting it and 39.9% supporting it (see Figure 3). This is more than three times the number opposing the proposal (17.6%), with 10.4% opposing and 7.2% strongly opposing the proposal. A quarter of the respondents (25.2%) neither support or oppose the proposal. Statistical analysis confirms that significantly more Harris County adults support the private/public reuse proposal than oppose it.²

² Note that the "Level" of statistical significance (denoted by a p value) has to do with the probability that what is observed differs from the null hypothesis (of no relation or no difference). In the classical tradition a p value of 0.05 indicates that in, say, 100 repeated samples, the value realized would fall within a given interval 95 out of 100 samples. Extending this relation, a p value of .01 means that the result would fall within a pre-specified interval in over 99 out of 100 samples. The closer the p value is to zero the stronger the finding. Following standard practice we consider any p value of 0.05 or below to be statistically significant, but also report instances in the tables where the p value was greater than 0.05 but less than or equal to .10.

Evaluation of the Proposal to Leave the Astrodome in its Current State for the Time Being

At the present time, the most prominent alternative proposal to the above-mentioned private/public reuse proposal is a “wait and see” proposal to leave the Astrodome in its current state until such a time that a viable renovation concept is identified. Respondents were informed about this alternative proposal that would leave the Astrodome in its current state until a renovation concept is identified in the future that would meet the requirements of the Texas Historical Commission. They were provided with visual images of the current state of the Astrodome (see Appendix IV for the images they viewed) and asked how they would assess their position regarding this proposal on a five-point scale: Strongly Support, Support, Neither Support or Oppose, Oppose, Strongly Oppose.

Overall, around one-third (33.9%) of the respondents support this “wait and see” proposal to leave the Astrodome in its current state, with 9.8% strongly supporting it and 24.1% supporting it (see Figure 4). Slightly more respondents oppose this proposal (36.7%) than support it, with 25.6% opposing it and 11.1% strongly opposing it. The remaining 29.3% neither support or oppose this alternative proposal. Statistical analysis indicates that there does not exist a significant difference in Harris County between the proportion of supporters and opponents of the proposal to leave the Astrodome in its current state for the time being.

Choosing Between the Two Rival Proposals

Finally, the respondents were asked to think about the two above-mentioned proposals, and asked that if they were in a position where they needed to choose between these two options, which one would they support. The respondents were given an opportunity to once again review the images that were provided in the prior two questions.

When presented with these two options, 55.1% favored the proposed private/public reuse of the Astrodome site while 29.9% preferred the alternative proposal of leaving the Astrodome in its current state until a viable renovation concept is identified in the future (see Figure 5). The remaining 15.0% opted to not make a choice and skipped the question. It seems likely that the decision to skip the question was partially the result of a lack of respondent familiarity with the debate over the future of the Astrodome. Nearly half of those who skipped this question (45.7%) indicated that they have paid either only a little or no attention to the issue of what to do with the Astrodome. This proportion is twice as large as the proportion that has paid only a little or no attention (22.8%) among the 85.0% of the respondents who did not skip the question.

Figure 6 focuses on the distribution of support for the two proposals among the 85.0% of the respondents who answered the question, with 64.8% favoring the

private/public reuse proposal and 35.2% preferring to leave the Astrodome in its current state. When the analysis is restricted to registered voters only, the proportion favoring the private/public proposal rises to 68.8%% and the proportion preferring to leave the Astrodome in its current state drops to 31.2%. In sum, significantly more Harris County residents favor the private/public proposal over the alternative of leaving the Astrodome in its current state until a viable renovation concept is identified in the future.

IV. UNDERSTANDING SUPPORT FOR, OPPOSITION TO, AND CHOICE BETWEEN THE TWO PROPOSALS

In this section we deepen understanding of public attitudes toward the two proposals for the future of the NRG Astrodome by examining the relationship between support for, opposition to, and choice between the proposals and a select number of geographic, socio-demographic and contextual factors. Either our statistical analysis identified these variables as important for explaining significant differences in levels of support for, opposition to and choice between these two proposals or the variables are considered to be of particularly high political/social salience, with the absence of statistically significant differences also meriting discussion.

Complete tables reporting the results of analysis for all covariates as well as statistical commentary are provided in Appendix II. The 16 tables discussed explicitly in this section can be found in Section VIII of the report. Altogether these results highlight, among other things, the general lack (with three minor exceptions, one related to age, one related to education and one related to gender) of statistically significant relationships between age, education, ethnicity/race, income, gender *and* support for, opposition to and choice between the proposals. In a nutshell, there is a dearth of statistically significant differences in public support for the two proposals among Harris County residents resulting from socio-demographic characteristics such as ethnicity/race, education, income, and gender. Given the high social and political salience of ethnicity/race in Harris County however, we nevertheless review the “non-findings” related to ethnicity and race below. Voter registration status and attendance of events at the NRG Complex over the past year are also unrelated to support for the proposals.

The County Commissioner Precincts and the Two Proposals

Harris County is governed by a five-member commissioners court, consisting of a county judge and four county commissioners each of whom represents a single county commission precinct (see Appendix V for a current map of the four county commissioner precincts). The current county judge is Ed Emmett while the four current county commissioners are: El Franco Lee (Precinct 1), Jack Morman (Precinct 2), Steve Radack (Precinct 3), and Jack Cagle (Precinct 4).

Table 1 displays the level of support for the private/public reuse proposal among respondents based on which one of the four county commissioner precincts they reside in. An absolute majority of the residents of Precincts 1 (66.2%), 2 (67.0%) and 3 (50.1%) support the proposal, while a near-absolute majority of residents support the proposal in Precinct 4 (47.9%). Support in Precincts 1 and 2 is significantly greater than in Precincts 3 and 4. Conversely, a relatively small share of Harris County residents in these four precincts oppose the proposal, ranging from a high of 29.7% in Precinct 3 to a low of 7.4% in Precinct 1, with Precinct 2 (17.5%) and Precinct 4 (16.4%) in between. Relatively similar proportions exist if the analysis is restricted to the 78.7% of the respondents who are registered voters.

Table 2 displays the level of support for the status quo alternative to the private/public reuse proposal: that is, to leave the Astrodome in its current state until a viable renovation concept is identified. This status quo proposal enjoys notably less support in all four of the precincts than the private/public reuse proposal. Support ranges from a high of 41.2% in Precinct 1 to a low of 25.1% in Precinct 3, with Precinct 2 (35.9%) and Precinct 4 (28.4%) occupying intermediate positions. Opposition to this proposal is highest in Precinct 3 (44.6%), followed by Precincts 4 (43.1%), 1 (34.6%) and 2 (24.9%). Overall these cross-precinct differences are not statistically significant. Relatively similar proportions exist if the analysis is restricted to the 78.7% of the respondents who are registered voters, although among registered voters the differences between Precincts 1 and 2 and Precincts 3 and 4 are statistically significant.

Tables 3 and 4 provide the distribution of support for these two rival proposals when respondents are asked to choose between them. Table 3 includes the distribution of both respondents who chose between the private/public reuse proposal and the status quo alternative as well as respondents who declined to choose (i.e., who skipped the question). Table 4 is restricted solely to the 85.0% of the respondents who chose one of the two options.

Table 3 reveals that when allowed three de facto options: the private/public reuse proposal, the status quo proposal, and neither, an absolute majority of the residents of all four county commissioner precincts preferred the private/public reuse proposal, ranging from a high of 63.6% in Precinct 4 to a low of 50.4% in Precinct 2. When the analysis is restricted to those who indicated a choice, the proportion favoring the private/public reuse proposal over the status quo proposal of leaving the Astrodome in its current state until a viable renovation option emerges rises to above three-fifths in all four precincts, ranging from a high of 72.4% in Precinct 4 to a low of 60.6% in Precinct 2. Overall, none of these cross-precinct differences are statistically significant.

Ethnicity/Race and the Two Proposals

The ethnic/racial distribution of the survey population is: Hispanic (35.4%), Anglo/White (34.9%), African American (19.4%), Asian American (7.5%), Other (2.8%). The analysis did not reveal any statistically significant relationships between a respondent's ethnicity/race and support for, opposition to, or choice between the two proposals.

Table 5 displays the level of support for the private/public reuse proposal among respondents based on the respondent's ethnicity/race. While there are some modest differences among the different groups in terms of their level of support for this proposal, none are statistically significant. With the exception of the miniscule "Other" category, absolute majorities of all four ethnic/racial groups support the private/public reuse proposal.

Table 6 displays the level of support across the different ethnic/racial groups for the status quo alternative to the private/public reuse proposal: that is, to leave the Astrodome in its current state until a viable renovation concept is identified. While the groups differ slightly in their support for the proposal, the differences are not statistically significant. Among all groups, between a quarter and three-fifths support the status quo proposal.

Tables 7 and 8 provide the distribution of support for these two rival proposals when respondents are asked to choose between them. Table 7 includes in the distribution both respondents who chose between the private/public reuse proposal and the status quo alternative as well as respondents who declined to choose (no response). Table 8 is restricted solely to the 85.0% of the respondents who chose one of the two options.

As was the case previously, there does not exist a significant relationship between a respondent's ethnicity/race and their support for either proposal. Among all groups a plurality (Table 7) favor the private/public option over the status quo option when those who did not respond are included, proportions that become absolute majorities (Table 8) of all ethnic/racial groups when the analysis is restricted to the 85.0% who expressed a choice between the two proposals.

Education and the Two Proposals

The highest level of education obtained by respondents ranged from less than high school to a post-graduate degree. In the analysis, respondents were grouped together into three educational attainment categories: Less than High School/High School (40.6%), Some College/Two Year College Degree (31.9%), Four Year College Degree/Post-Graduate Degree (27.6%). While the analysis did not detect any significant differences between the two higher attainment

groups, notable differences were detected in two instances between the lower educational attainment cohort and the two higher educational attainment cohorts.

Table 9 displays the level of support across the three educational attainment groups for the private/public reuse proposal. Absolute majorities of all three educational cohorts support the private/public reuse proposal, but the “No High School/High School Graduate” group supports it at a visibly (albeit not statistically significant at the .05 level) lower rate than the other two groups.

Table 10 displays the level of support across the three educational attainment groups for the status quo alternative to the private/public reuse proposal: that is, to leave the Astrodome in its current state until a viable renovation concept is identified. In no case do even two-fifths of the respondents support the status quo proposal. However, members of the “No High School/High School Graduate” group are significantly more likely to support the proposal than members of the two higher educational attainment groups.

Tables 11 and 12 provide the distribution of support for these two rival proposals when respondents are asked to choose between them. Table 11 includes in the distribution both respondents who chose between of the private/public reuse proposal and the status quo alternative as well as respondents who declined to choose. Table 12 is restricted solely to the 85.0% of the respondents who chose one of the two options.

No statistically significant relationship exists between a respondent’s educational level and their support for either proposal. Absolute majorities of all of the educational groups in both tables expressed a preference for the private/public proposal.

Astrodome Experience and the Two Proposals

In the survey respondents were asked how many separate events they had attended at the Astrodome. Slightly more than a fifth of the respondents (22.6%) never attended an event at the Astrodome, while slightly more than a third (33.7%) attended between 1 and 10 events. The remaining categories and distribution of the respondents are: 11-25 events (16.9%), 26-50 (12.5%), 51-100 (9.0%), and more than 100 events (5.2%).

Table 13 displays support for the private/public reuse proposal among the respondents divided into distinct groups based on the number of events they had attended at the Astrodome during its nearly forty-year span as a public venue. There is a statistically significant positive relationship between the number of times a person attended an event at the Astrodome and their support for this proposal. That is, the more times a person visited the Astrodome for an event, the more likely they are to support the private/public proposal, with the significant difference explained entirely by a notable gap between those who never attended

an event and those who attended one or more events. Among individuals who experienced the Astrodome as a venue no notable differences exist in support. That is there is no significant difference in support for the proposal whether or not a person attended 1 to 10 events or more than a hundred. In all categories, other than that of no events attended, an absolute majority of the respondents supported the private/public plan.

Table 14 displays the level of support across the different attendance groups for the status quo alternative to the private/public reuse proposal: that is, to leave the Astrodome in its current state until a viable renovation concept is identified. A statistically significant positive relationship exists between the number of events attended at the Astrodome and support for the proposal to leave the Astrodome in its current state until such a time that a viable renovation concept is identified. This relationship is once again explained by the more limited support among those who never attended an Astrodome event and everyone else, among whom the differences are statistically marginal.

Tables 15 and 16 provide the distribution of support for these two rival proposals when respondents are asked to choose between them. Table 15 includes in the distribution both respondents who chose between the private/public reuse proposal and the status quo alternative as well as respondents who declined to choose. Table 16 is restricted solely to the 85.0% of the respondents who chose one of the two options.

The results in Tables 15 and 16 reveal a statistically curvilinear relationship between a respondent's support for the two rival proposals and the number of events they attended at the Astrodome. A plurality (Table 15) and absolute majority (Table 16) of those who never attended an event at the Astrodome and those who attended more than 100 events preferred the proposal to leave the Astrodome in its current state for the present time while an absolute majority of all other attendance groups (in both Tables 15 and 16) preferred the proposal for a private/public reuse of the Astrodome.

V. CONCLUSION

The 2014 NRG Astrodome Survey was carried out to obtain the input of a representative sample of Harris County adults regarding the future of the NRG Astrodome. Among other things, the survey respondents were provided with detailed information (including artist renderings and photos) of the two most prominent current alternative proposals regarding the Astrodome's future.

The survey reveals strong support among Harris County adults for a proposed private/public financed reuse of the NRG Astrodome site that would be similar to Discovery Green in downtown Houston. More than three times as many Harris County residents support this proposal as oppose it. The majority support for the private/public proposal contrasts with the less than majority support for the most

prominent rival alternative proposal that would leave the Astrodome in its current state until a renovation concept is identified in the future that would meet the requirements of the Texas Historical Commission. In fact, slightly more people oppose this status quo proposal than support it. When the two proposals faced-off against each other, Harris County residents --- by an almost two-to-one margin --- favored the private/public reuse proposal over its status quo rival. However, we add this cautionary note. Since the comparison was limited to two alternatives it does not foreclose the possibility that other theoretical options might be more favored.

With a few minor exceptions support for, opposition to and the choice between the two proposals was largely unrelated to socio-demographic or contextual factors. The results also indicate that there exist few statistically significant differences across the four county commissioner precincts.

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VII. FIGURES

Figure 1. Level Of Attention Paid To The Issue Of What To Do With The Astrodome Among Harris County Adults

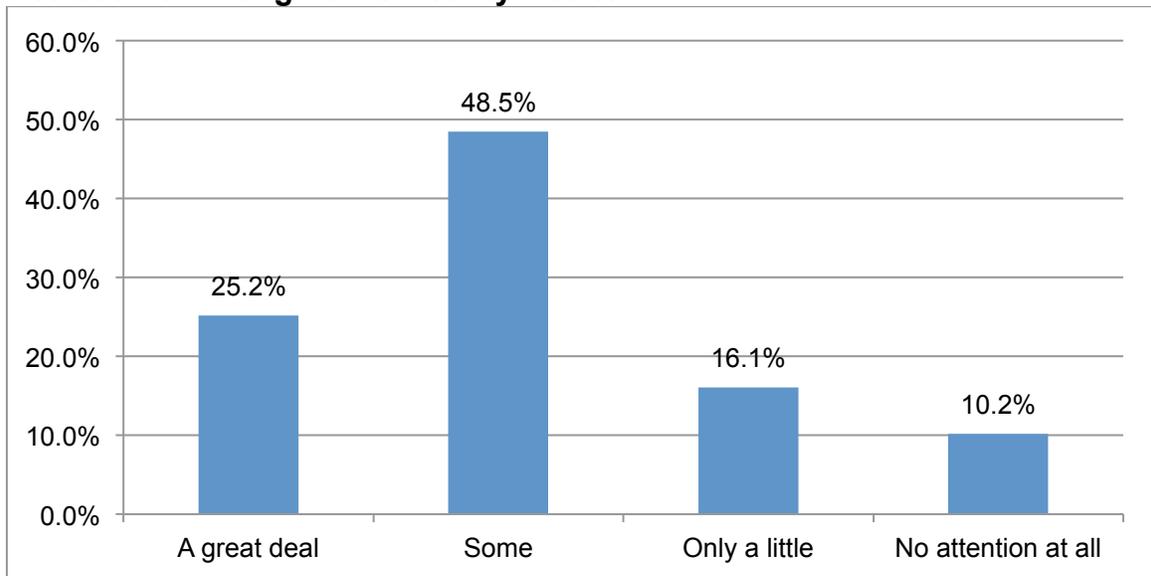


Figure 2. Sentiment Among Harris County Adults Regarding The November 2013 Astrodome Bond Proposition

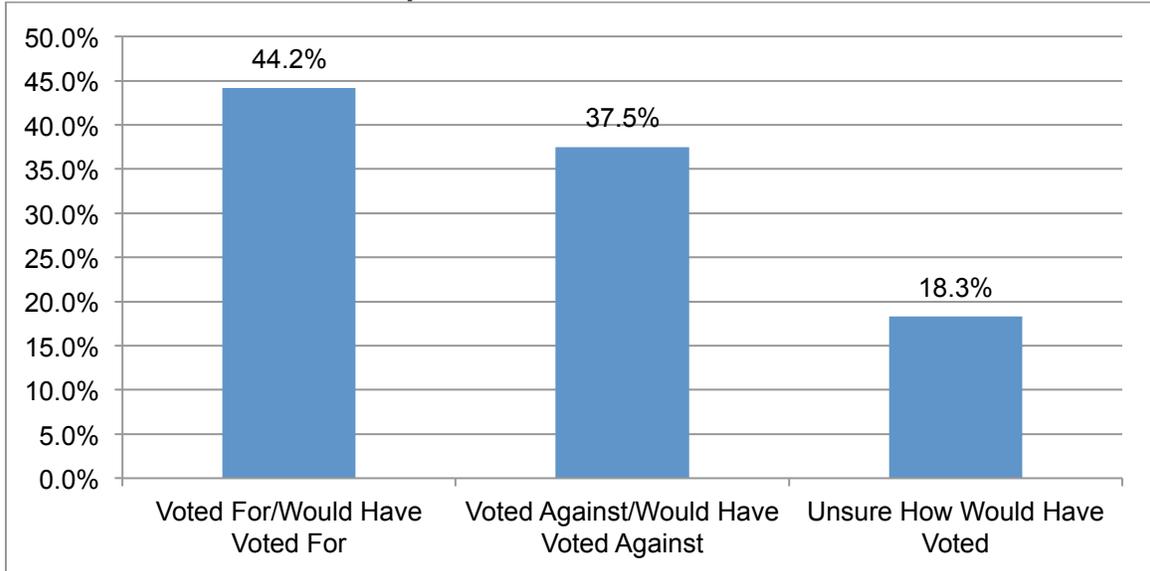


Figure 3. The Position Of Harris County Adults Regarding The Proposal For A Private/Public Reuse Of The Astrodome To Include A Visitor's Center/Museum Complex In The Center Of A Green Space

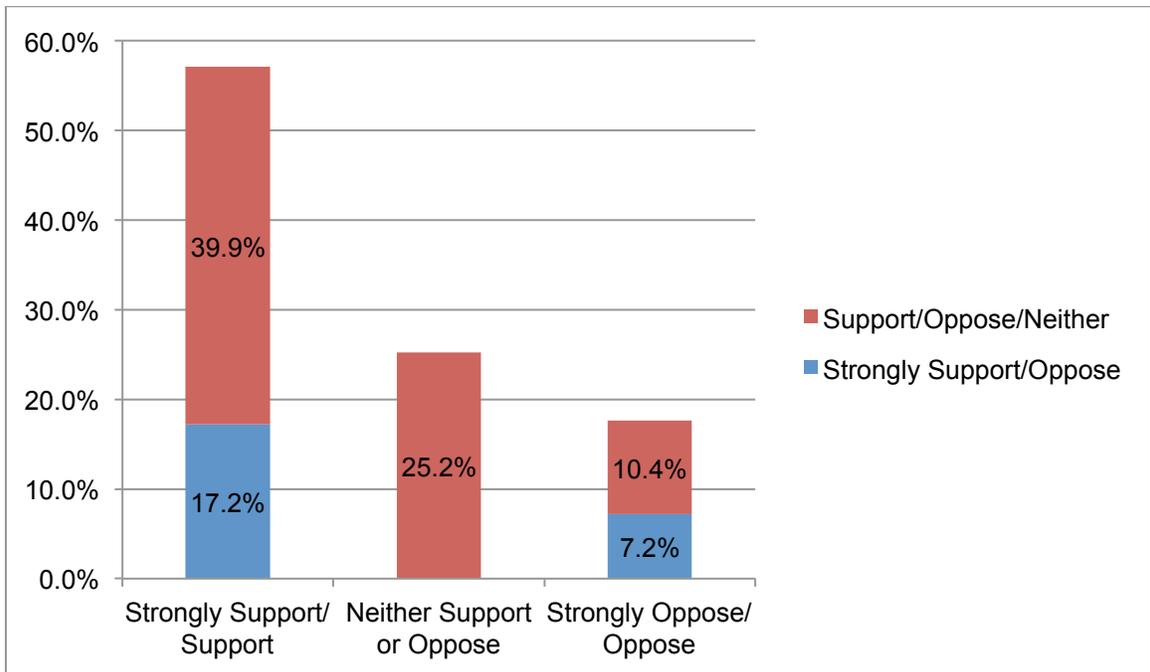
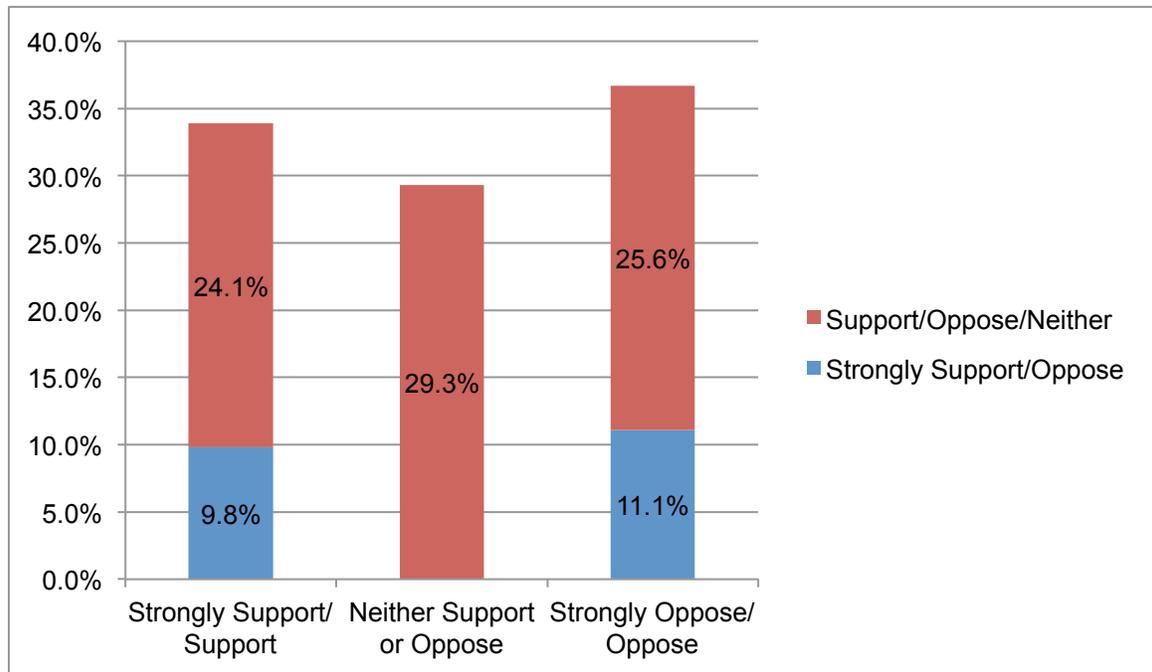
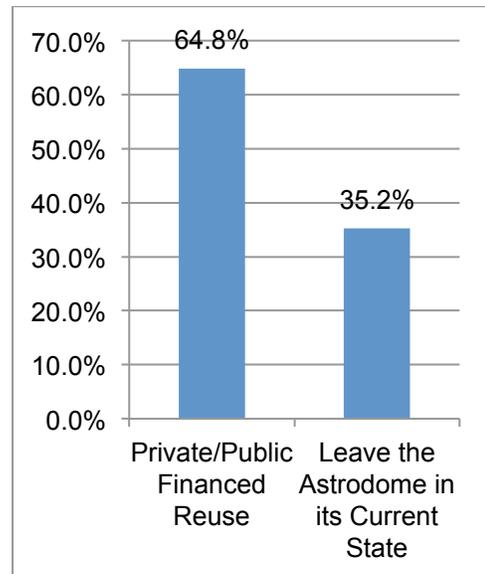
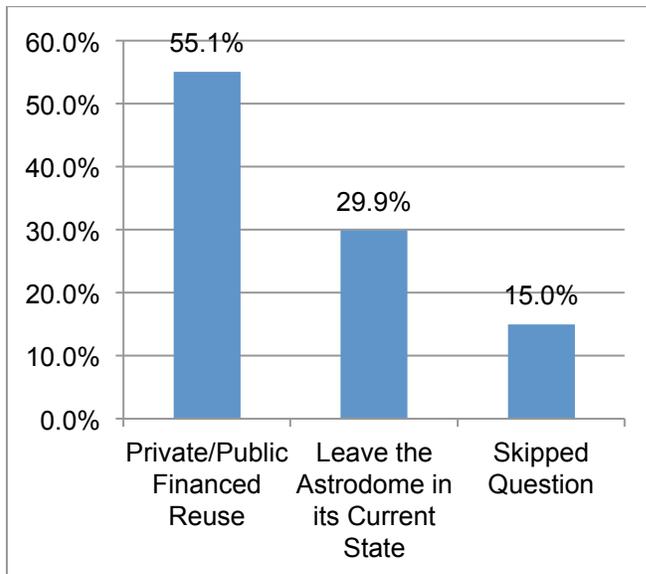


Figure 4. The Position of Harris County Adults Regarding The Proposal To Leave The Astrodome In Its Current State Until A Renovation Concept Is Identified That Would Meet The Requirements Of The Texas Historical Commission



Figures 5 and 6. Public Preference For The Private/Public Reuse Proposal Vs. The Leave The Astrodome In Its Current State (Status Quo) Proposal: All Responses And Valid Responses Only



VIII. TABLES

Table 1. Position on Private/Public Reuse Proposal by Commissioner Precinct for All Residents

Commissioner Precinct	Position on Private/Public Reuse Proposal					
	Strongly Support	Support	Neither Support Or Oppose	Oppose	Strongly Oppose	Total
County Precinct 1	16.0%	50.2%	26.4%	4.5%	2.9%	100.0%
County Precinct 2	25.5%	41.5%	15.6%	7.4%	10.1%	100.0%
County Precinct 3	19.6%	30.5%	20.2%	18.1%	11.6%	100.0%
County Precinct 4	8.3%	39.6%	35.6%	11.2%	5.2%	100.0%

Table 2. Leave the Astrodome in its Current State by Commissioner Precinct for All Residents

Commissioner Precinct	Leave the Astrodome in its Current State					
	Strongly Support	Support	Neither Support Or Oppose	Oppose	Strongly Oppose	Total
County Precinct 1	12.9%	28.3%	24.2%	30.0%	4.6%	100.0%
County Precinct 2	14.9%	21.0%	39.2%	19.2%	5.7%	100.0%
County Precinct 3	4.9%	20.2%	30.3%	29.5%	15.1%	100.0%
County Precinct 4	6.6%	21.8%	28.5%	24.7%	18.4%	100.0%

Table 3. Leave the Astrodome in its Current State or Reuse the Astrodome based on the Private/Public Reuse Proposal (Three Options) by Commissioner Precinct for All Residents

Commissioner Precinct	Leave the Astrodome in its Current State Or Reuse the Astrodome			
	Leave the Astrodome in its current state for time being	The private/public financed reuse of the Astrodome	No response	Total
County Precinct 1	33.8%	54.6%	11.6%	100.0%
County Precinct 2	32.7%	50.4%	16.9%	100.0%
County Precinct 3	23.2%	55.6%	21.2%	100.0%
County Precinct 4	24.3%	63.6%	12.1%	100.0%

Table 4. Leave the Astrodome in its Current State or Reuse the Astrodome based on the Private/Public Reuse Proposal (Two Options) by Commissioner Precinct for All Residents

Commissioner Precinct	Leave the Astrodome in its Current State Or Reuse the Astrodome		
	Leave the Astrodome in its current state for time being	The private/public financed reuse of the Astrodome	Total
County Precinct 1	38.3%	61.7%	100.0%
County Precinct 2	39.4%	60.6%	100.0%
County Precinct 3	29.4%	70.6%	100.0%
County Precinct 4	27.6%	72.4%	100.0%

Table 5. Position on Private/Public Reuse Proposal by Ethnicity/Race

Ethnicity/Race	Position on Private/Public Reuse Proposal					
	Strongly Support	Support	Neither Support Or Oppose	Oppose	Strongly Oppose	Total
Hispanic	13.0%	46.1%	32.2%	5.5%	3.2%	100.0%
Anglo	18.5%	36.9%	18.5%	14.9%	11.1%	100.0%
African American	21.1%	37.3%	27.2%	8.6%	5.8%	100.0%
Asian American	20.0%	35.7%	15.1%	17.9%	11.3%	100.0%
Other	17.1%	29.4%	34.4%	9.2%	9.9%	100.0%

Table 6. Leave the Astrodome in its Current State by Ethnicity/Race

Ethnicity/Race	Leave the Astrodome in its Current State					
	Strongly Support	Support	Neither Support Or Oppose	Oppose	Strongly Oppose	Total
Hispanic	6.7%	31.0%	31.0%	26.9%	4.3%	100.0%
Anglo	8.7%	20.0%	30.0%	27.1%	14.2%	100.0%
African American	16.9%	17.4%	27.3%	20.9%	17.7%	100.0%
Asian American	8.0%	29.6%	23.6%	26.4%	12.5%	100.0%
Other	19.7%	18.9%	29.5%	21.4%	10.5%	100.0%

Table 7. Leave the Astrodome in its Current State or Reuse the Astrodome based on the Private/Public Reuse Proposal (Three Options) by Ethnicity/Race

Ethnicity/Race	Leave the Astrodome in its Current State Or Reuse the Astrodome			
	Leave the Astrodome in its current state for time being	The private/public financed reuse of the Astrodome	No response	Total
Hispanic	32.6%	52.8%	14.6%	100.0%
Anglo	23.0%	65.6%	11.5%	100.0%
African American	35.1%	44.1%	20.9%	100.0%
Asian American	36.9%	46.4%	16.7%	100.0%
Other	29.0%	52.0%	19.0%	100.0%

Table 8. Leave the Astrodome in its Current State or Reuse the Astrodome based on the Private/Public Reuse Proposal (Two Options) by Ethnicity/Race

Ethnicity/Race	Leave the Astrodome in its Current State Or Reuse the Astrodome		
	Leave the Astrodome in its current state for time being	The private/public financed reuse of the Astrodome	Total
Hispanic	38.1%	61.9%	100.0%
Anglo	25.9%	74.1%	100.0%
African American	44.3%	55.7%	100.0%
Asian American	44.3%	55.7%	100.0%
Other	35.8%	64.2%	100.0%

Table 9. Position on Private/Public Reuse Proposal by Education

Education	Position on Private/Public Reuse Proposal					
	Strongly Support	Support	Neither Support Or Oppose	Oppose	Strongly Oppose	Total
No High School/ High School Graduate	12.6%	41.1%	30.6%	11.9%	3.8%	100.0%
Some College/ 2 Year College	17.5%	41.6%	26.2%	6.8%	7.9%	100.0%
4 Year College/ Post-Grad	23.6%	36.4%	16.2%	12.3%	11.5%	100.0%

Table 10. Leave the Astrodome in its Current State by Education

Education	Leave the Astrodome in its Current State					
	Strongly Support	Support	Neither Support Or Oppose	Oppose	Strongly Oppose	Total
No High School/ High School Graduate	4.7%	33.5%	28.0%	26.1%	7.7%	100.0%
Some College/ 2 Year College	14.0%	18.8%	32.2%	24.9%	10.2%	100.0%
4 Year College/ Post-Grad	12.5%	16.5%	28.0%	17.0%	25.8%	100.0%

Table 11. Leave the Astrodome in its Current State or Reuse the Astrodome based on the Private/Public Reuse Proposal (Three Options) by Education

Education	Leave the Astrodome in its Current State Or Reuse the Astrodome			
	Leave the Astrodome in its current state for time being	The private/public financed reuse of the Astrodome	No response	Total
No High School/ High School Graduate	31.7%	50.0%	18.3%	100.0%
Some College/ 2 Year College	29.9%	54.8%	15.3%	100.0%
4 Year College/ Post-Grad	27.5%	62.7%	9.8%	100.0%

Table 12. Leave the Astrodome in its Current State or Reuse the Astrodome based on the Private/Public Reuse Proposal (Two Options) by Education

Education	Leave the Astrodome in its Current State Or Reuse the Astrodome		
	Leave the Astrodome in its current state for time being	The private/public financed reuse of the Astrodome	Total
No High School/ High School Graduate	38.8%	61.2%	100.0%
Some College/ 2 Year College	35.2%	64.8%	100.0%
4 Year College/ Post-Grad	30.4%	69.6%	100.0%

Table 13. Position on Private/Public Reuse Proposal by Astrodome Experience

Number of Events Attended in the Astrodome	Position on Private/Public Reuse Proposal					
	Strongly Support	Support	Neither Support Or Oppose	Oppose	Strongly Oppose	Total
None	12.2%	26.7%	39.1%	13.1%	8.9%	100.0%
1-10	17.5%	48.1%	25.8%	5.4%	3.2%	100.0%
11-25	17.3%	43.9%	21.7%	12.4%	4.7%	100.0%
26-50	20.4%	42.2%	12.7%	9.6%	15.2%	100.0%
51-100	16.7%	38.7%	23.7%	16.6%	4.3%	100.0%
101 or more	29.0%	28.0%	5.9%	16.1%	20.9%	100.0%

Table 14. Leave the Astrodome in its Current State by Astrodome Experience

Number of Events Attended in the Astrodome	Leave the Astrodome in its Current State					
	Strongly Support	Support	Neither Support Or Oppose	Oppose	Strongly Oppose	Total
None	8.8%	11.2%	43.7%	25.1%	11.2%	100.0%
1-10	5.2%	35.9%	24.0%	26.3%	8.7%	100.0%
11-25	14.4%	20.0%	27.1%	30.4%	8.1%	100.0%
26-50	13.4%	24.4%	15.9%	24.5%	21.9%	100.0%
51-100	13.6%	15.5%	43.2%	20.6%	7.0%	100.0%
101 or more	15.2%	31.4%	15.9%	19.5%	18.1%	100.0%

Table 15. Leave the Astrodome in its Current State or Reuse the Astrodome based on the Private/Public Reuse Proposal (Three Options) by Astrodome Experience

Number of Events Attended in the Astrodome	Leave the Astrodome in its Current State Or Reuse the Astrodome			
	Leave the Astrodome in its current state for time being	The private/public financed reuse of the Astrodome	No response	Total
None	47.4%	37.4%	15.2%	100.0%
1-10	20.6%	59.9%	19.5%	100.0%
11-25	30.9%	58.6%	10.5%	100.0%
26-50	17.7%	69.9%	12.4%	100.0%
51-100	28.2%	61.3%	10.5%	100.0%
101 or more	43.6%	42.0%	14.4%	100.0%

Table 16. Leave the Astrodome in its Current State or Reuse the Astrodome based on the Private/Public Reuse Proposal (Two Options) by Astrodome Experience

Number of Events Attended in the Astrodome	Leave the Astrodome in its Current State Or Reuse the Astrodome		
	Leave the Astrodome in its current state for time being	The private/public financed reuse of the Astrodome	Total
None	55.9%	44.1%	100.0%
1-10	25.6%	74.4%	100.0%
11-25	34.5%	65.5%	100.0%
26-50	20.2%	79.8%	100.0%
51-100	31.5%	68.5%	100.0%
101 or more	50.9%	49.1%	100.0%