# Unified School District 388 School Bond Survey 2013 



Prepared For
Unified School District 388 Administrators
Prepared By
The Docking Institute of Public Affairs
Fort Hays State University


Fort Hays State University 600 Park Street Hays, Kansas 67601-4099
Telephone: (785) 628-4197
FAX: (785) 628-4188 www.fhsu.edu/docking

Gary Brinker, PhD Director

Jian Sun, PhD
Research Scientist

Michael S. Walker, MS
Assistant Director
Catherine Rockey Survey Center Director

Lynette Boys Administrative Specialist

Mission:
To Facilitate Effective Public Policy Decision-Making.
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# USD 388 School Bond Survey 2013 

## Prepared By:

Gary Brinker, Ph.D.
Director,
Docking Institute of Public Affairs

## Prepared For:

USD 388 Administrators In pursuit of
The Docking Institute's Public Affairs Mission

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## Executive Summary

- The study measured considerable opposition to the proposed school bond containing 10 major improvement projects, with about $1 / 3$ of respondents saying they would vote for the bond and $2 / 3$ saying they would vote against this bond.
- Respondents' ratings of individual projects, as well as those who said they would vote against the bond directly indicating certain projects that prevented them from supporting the bond, showed with high congruence that certain projects were much more opposed than others. Most of the opposition was for the football field, followed by the running track and secondary gym. Upgrading of sports facilities was also found to be highly unpopular in a recent similar survey for USD 327 in Ellsworth.
- About $6 \%$ of respondents said they did not vote in the 2012 election, while another $21 \%$ did not self-report whether they voted. Analysis showed that non-voters supported or opposed the same projects as voters, to a lesser degree. Those whose voting behavior is unknown also supported and opposed the same projects as voters, but to a greater degree. It is difficult to say how the unknown voters might bias the survey results. If we assume that the proportions of voters and non-voters among the undeclared respondents are similar to those disclosing their voting behavior, there should be little bias.
- In-depth analysis suggests that removing the football field, running track and secondary gym will be required for the bond to even come close to passing. It is clear that removing more of the negatively rated projects from the bond proposal will increase the probability of the bond passing. It is unclear how many will need to be removed to make the bond likely to pass. The analysis suggests that as many as four or five of the more unpopular projects may be need to be removed in order for the bond to pass.


## Methodology

In January of 2013, the Docking Institute of Public Affairs at Fort Hays State University contracted with Unified School District 388 to conduct a study to measure District voter support for a variety of prospective improvement projects identified as high-need by District administrators, as well as support for and reasons not to support a specific school bond proposal. The purpose of the study is to provide valid data to assist administrators in authoring a bond proposal that will best meet the educational needs of students in the District and have a high probability of passing in a bond election. The opinions of, and preferences for, the various proposed improvement projects among likely voters are measured through a self-administered survey delivered to all registered voters in the District via U.S. Postal Service.

The survey instrument (Appendix A) was constructed in cooperation with District administrators and designed to measure respondents' support for each individual improvement project, whether the respondent would vote for a specific bond proposal and, for those opposed to the bond proposal, reasons why. The survey also asks respondents to self-report whether they voted in the most recent election.

The sample was acquired from the Ellis and Trego County Clerks, which included the latest official list of registered voters in the District with their home mailing addresses. The Institute had the post office update the file to include recent moves, leaving a sample of 1,773 registered voters. It was assumed that likely voters among this population would also be more likely to respond to the survey. Surveys were mailed on March 5, and data collection was terminated on April 9, 2012, at which time 501 completed surveys had been returned for a response rate of $28.3 \%$. Because all members of the target population were given an opportunity to participate, there is no margin of error. The survey data were entered into an SPSS data file for analysis.

## Responses to Survey Questions

Figure 1


Mean Rating in Brackets
Figure 1 shows the response distributions for respondent ratings of the 10 individual improvement projects, rank ordered by mean response from the most strongly supported to the most strongly opposed. The strongest support and lowest opposition was for paying off the current HVAC loan. Renovating Washington Grade School and constructing a Jr. High School addition to the High School also received more support than opposition. The remaining projects, to varying degrees, received mean negative ratings, indicating stronger opposition than support expressed, overall. However, mean opposition for replacing the wrestling room and stadium bleachers was relatively weak, and may not bring down overall support for a bond including these items enough to cause the bond to fail. A bond that included replacing the football field would have little chance of passing, in that strong opposition for this project is higher than strong support for any of the remaining projects.

Figure 2


Figure 2 is similar to Figure 1, but shows only the proportions of respondents that rated each project negatively, neutral or positively. The farther the yellow section representing a neutral rating is to the right, the more likely inclusion of the project in the bond will cause a majority of voters to vote against the bond. A bond including the top three projects alone would have a high probability of passing. Including the next four items would introduce the possibility of failure. Including any of the bottom three projects would introduce a high probability of failure. Including any two of the bottom three projects would almost surely result in failure. Including all three would likely result in overwhelming failure.

Figure 3
Whether Respondent Would Vote for Bond Proposal


Figure 3 shows the percentage of respondents indicating whether they would vote for or against a hypothetical bond proposal that includes 1) paying off the current loan for upgrading the heating and air conditioning system, 2) replacing the weight room and wrestling room that would also provide a large storm shelter, 3) replacing the football field, track, press box and bleachers, 4) adding a junior high addition to the high school, 5) renovating Washington Elementary School, and 6) replacing the secondary gymnasium. Respondents were also told that "the price for all of these improvement projects will be approximately $\$ 9,570,000$ and would cost tax payers approximately $\$ 160$ per year for a $\$ 75,000$ home and $\$ 205$ per year for a $\$ 100,000$ home." The data suggest that this bond would not have a good chance of passing, with two-thirds indicating they would likely vote against this bond, and only one-third showing support for it.

The previous analysis would suggest that the items most likely to have caused a majority of respondents to vote against the bond are the inclusion of the football field, running track and secondary gymnasium, in that there was strong negative mean ratings for these individual projects. Respondents who indicated they would not vote for this particular bond were asked to indicate the inclusion of which projects in the proposed bond caused them to vote against it.

Figure 4


Figure 4 shows the results from the respondents that indicated they would vote against the proposed bond being asked which project kept them from supporting the bond. These results mirror those from the ratings of individual projects by the entire sample and provide additional validity to the conclusion that the football field, running track and secondary gymnasium were the projects most likely to cause respondents to oppose the proposed bond. A previous bond survey done recently for USD 327 showed similar results; strong opposition to the upgraded sports facilities that were part of the proposed bond. The Docking bond survey, which was not commissioned until after the failed bond election, showed extremely strong opposition to these projects by a majority of respondents, strongly suggesting that the inclusion of these projects is what caused the bond to fail. Detailed analysis also suggests that a significant proportion of USD 388 respondents gave highly negative ratings for all or most of the 10 projects. Almost 20\% gave an average of -4 to all 10 projects. On the other hand, 9\% rated every project +5 , and $13 \%$ gave an average rating of +4 to all 10 projects.

Figure 5


Voter status was self-reported, which is the main reason the proportion of voters in the sample ( $92 \%$ of those who answered the question) is higher than the actual percent of the population who voted. Subjects in surveys typically over-report their voting behavior. Also, $21 \%$ of the sample did not indicate whether they voted. The results suggest that most of those not self-reporting whether they voted did vote, since their responses are more similar to the self-reported voters, but there is no way to determine this empirically. Since $6 \%$ of the sample indicated they did not vote, and another $21 \%$ did not indicate whether they voted, it is important to analyze the differences in responses between voters and non-voters. Figure 5 shows the differences between project ratings of those who said they voted in the 2012 election, those who said they did not vote in the 2012 election and those who did not report their voting status.

Note that in 9 of the 10 projects, voters, non-voters and non-respondents, on average, agreed on whether they supported or did not support that project, to varying degrees. In each of these 9 cases, voters and non-respondents tended to rate support or opposition more extremely than non-voters. Only on construction of a new Jr. High addition did voters and non-voters differ, with voters supporting this project and non-voters opposing it. This was also the only project in which non-respondents tended to disagree with voters. The reader must be careful to consider that these are mean ratings, which means that the sentiments of the voters (blue column) would carry much more weight in an election. Since those reporting they did not vote in the last election are unlikely to vote in a future bond election, these results suggest that voters would be more likely to support paying off the old bond and renovating Washington Grade School and less likely to support the remaining projects than the overall analysis indicates.

## Vote Prediction Models

The purpose of this study is to provide information that will facilitate constructing a school bond that will both provide for the basic needs of District students and have a high probability of passing in a bond election. Analysis has shown that the bond scenario proposed in the survey would be opposed by two-thirds of respondents. Ratings of the individual projects in the proposed bond exhibited a high degree of variation in support, suggesting that the inclusion of certain projects "caused" the majority of respondents to oppose the bond. From the individual project ratings, the researchers constructed models to predict how removing certain projects from the bond might change the likelihood it would pass.

Figure 6 shows Model A, which includes all 10 projects. The vertical red line shows the point where mean ratings are 0 . This is the point at which level of opposition theoretically equals level of support. The horizontal red line shows the approximate percentage ( $57 \%$ ) of respondents the model predicts would vote against the bond. This model underestimates the percent who said they would vote against the proposed bond (purple line) using the survey question (68\%) shown in Figure 3 as a reference. This suggests that the method will underestimate the percent who would vote for a particular bond scenario by about $11 \%$.

Figure 6


The remaining models show projected support for a bond with various combinations of the most highly opposed projects systematically removed. Model B is generated by removing what the series of survey questions measured to be the project most highly opposed by respondents, replacing the grass at the football field.

Figure 7


Figure 7 illustrates Model B. Note that by eliminating the football field from the bond, the model predicts opposition by only $54.4 \%$, vs. $57 \%$ for Model A. However, if the model is underestimating the percent who would oppose the bond by $11 \%$, this means that $65.4 \%$ would still oppose a bond with only the football field removed.

Figure 8


Figure 3 shows the results of Model C, which includes all projects except the football field and running track, the two most negatively rated projects. After removing both of these projects, the model predicts that only $51 \%$ of respondents would vote against the bond. Given the $11 \%$ error, we conclude that $62 \%$ of respondents would oppose this particular bond. Removing these two projects reduces the opposition by 6\%, from 68\% with all projects included to $62 \%$ with the football field and running track removed. This is still considerable higher than $50 \%$, the theoretical tipping point at which the bond would pass.

Figure 9

## Model D <br> No Football Field, Running Track or Secondary Gym



Figure 9 shows that if the secondary gym were also removed from the bond, it would only be opposed by $50 \%$ of respondents. With the error correction, the model predicts that $61 \%$ of respondents would vote against the bond if these three projects were removed.

Figure 10


Figure 10 shows the results with the press box also removed from the list of projects. With these four items removed from the bond, the model shows that $47 \%$ of respondents would vote against the bond. With $11 \%$ error, the model would predict that $58 \%$ would vote against this bond, still not a firm majority in favor.

Figure 11


If the weight room were also removed from the bond, Model F shows that only $42 \%$ of respondents would oppose the bond. With the error of $11 \%$, the Model suggests that only $53 \%$ of respondents would oppose the bond. We are now approaching the point where the model would predict a fair chance of passing in an election.

Figure 12


Figure 12 shows the final model with the lowest rated half of projects removed. At this point Model G shows that only $37.7 \%$ of respondents would oppose the bond. Even with the $11 \%$ error, the model would predict that a clear majority would favor a bond with only the most popular 5 projects included.

## Conclusions

The analysis has concluded that a strong majority of respondents would oppose a bond that included all 10 proposed projects. This was confirmed in the survey question asking respondents directly, as well as through in-depth analysis of the individual rating scores. The individual rankings showed that the project ranked most negatively was the football field, followed by the running track and secondary gym. To a lesser degree, the press box, weight room, bleachers and wrestling room were all rated more negatively than positively. The remaining three projects, paying off the loan, renovating Washington Grade School and building a Jr. High addition to the High School, were rated more positively than negatively. A bond that included only these three projects would be highly likely pass in a bond election. These priorities were confirmed in follow-up questions asking which projects, for those who said they would vote against the bond, kept them from voting for the bond.

The modeling analysis suggests that including any additional projects in the bond will place passing the bond in at least some jeopardy. The various models provided some guidance as to how eliminating the more unpopular projects might increase support. The comparative analysis of voter/non-voter/unknown respondents indicated that voters support most of the projects to a greater degree than non-voters, suggesting that an actual vote may get higher bond support that the survey data indicate. The researchers strongly recommend removing the football field, running track and secondary gym from the bond to avoid strong opposition to these projects affecting a negative vote. Removing any additional projects is not as clearly necessary, though the analysis suggests that it would be a very close vote of all seven of the remaining projects are included in the bond election.

# Appendix A: Survey Instrument 

USD 388
Voter Preference Survey

Next to each item listed, please indicate by circling the number on the scale indicating your personal level of support or opposition for each proposed need. See the back of the cover letter to read more about what each item involves and what it would cost.

|  | Strongly Oppose |  |  |  | Neutral |  |  |  | Strongly Support |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Pay Off Current HVAC Loan | -5 | -4 | -3 | -2 | -1 | 0 | +1 | +2 | +3 | +4 | +5 |
| Replace Weight Room | -5 | -4 | -3 | -2 | -1 | 0 | +1 | +2 | +3 | +4 | +5 |
| Replace Wrestling Room -Would also serve as a storm shelter | -5 | -4 | -3 | -2 | -1 | 0 | +1 | +2 | +3 | +4 | +5 |
| Replace Football Field (Artificial Turf) | -5 | -4 | -3 | -2 | -1 | 0 | +1 | +2 | +3 | +4 | +5 |
| Replace Running Track | -5 | -4 | -3 | -2 | -1 | 0 | +1 | +2 | +3 | +4 | +5 |
| Replace Stadium Press Box | -5 | -4 | -3 | -2 | -1 | 0 | +1 | +2 | +3 | +4 | +5 |
| Replace Stadium Bleachers | -5 | -4 | -3 | -2 | -1 | 0 | +1 | +2 | +3 | +4 | +5 |
| Construct Junior High Addition to High School | -5 | -4 | -3 | -2 | -1 | 0 | +1 | +2 | +3 | +4 | +5 |
| Renovate Washington Grade School | -5 | -4 | -3 | -2 | -1 | 0 | +1 | +2 | +3 | +4 | +5 |
| Replace Secondary Gymnasium | -5 | -4 | -3 | -2 | -1 | 0 | +1 | +2 | +3 | +4 | +5 |

Please read the following potential school bond proposal and tell us whether you would be more likely to vote for or against it in a future bond election.

A bond proposal includes: 1) Paying off the current loan for upgrading the heating and air conditioning system, 2) replacing the weight room and wrestling room that would also provide a large storm shelter, 3) replace the football field, track, press box and bleachers, 4) add a junior high addition to the high school, 5) renovate Washington Elementary School, and 6) replace the secondary gymnasium. The price for all of these improvement projects will be approximately $\$ 9,570,000$ and would cost tax payers approximately $\$ 160$ per year for a \$75,000 home and \$205 per year for a \$100,000 home.
$\square I$ would vote for this bond
$\square$ I would vote against this bond

If you indicated that you would vote for the bond described above, please skip this question.
Please check below any improvement projects from the above bond proposal that prevented you from voting for it.

Pay Off Current HVAC Loan
Replace Weight Room
Replace Wrestling Room -Would also serve as a storm shelter
Replace Football Field (Artificial Turf)
Replace Running Track
Replace Stadium Press Box
Replace Stadium Bleachers
Construct Junior High Addition to High School
Renovate Washington Grade School
Replace Secondary Gymnasium

Please indicate whether you were voted in the fall 2012 election.
$\square$ Did Vote
$\square$ Did Not Vote

Thank you for taking the time to give us your opinions. The information you have provided will help us provide the best education possible for our children.

Robert Young
Superintendent of USD 388

