

Economics/Social Science Final Report

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Introduction

Our objective was to provide both a better way of communicating with the general public about the Los Cerritos Wetlands and an educational resource that would enable future students and the general public to find out what is being done about, for, and in the wetlands. We decided to do this by creating a website: www.intoloscerritoswetlands.org. The website functions as a place to present and integrate the natural and social science of the Los Cerritos Wetlands (LCW) complex with the laws and policies that relate to them. The website is designed to serve as an educational tool for the ES&P classes as well as the general public. It also hosts a short video of which the purpose was to generate exposure and awareness of the LCW complex. In addition to hosting a video, photos, and both general and scientific information about the wetlands, the website was set up to host a survey. Since it was our goal to inform people and incite awareness of the wetlands, we set up a survey that would gauge, post-video exposure, whether or not people were indeed aware of these wetlands prior to visiting our site, whether or not they were interested in the wetlands and various questions assessing their interest and willing to pay (these questions can be found in Appendix II). We believe that if there is no way to generate public awareness of these wetlands then there is no hope to save them.

Methods

The website was designed and coded by Michelle using a combination of Illustrator CS3, Photoshop CS3 and Dreamweaver CS3. Research and organization of content was a joint effort between Arden and Michelle. This involved obtaining photos and “content” from both Eric Zahn and Dr. Hall. Content for the website includes species lists, professional research reports provided by Dr. Hall and downloaded from the Coastal Commission website (<http://www.coastal.ca.gov/>) and synopses of related laws. The survey was designed by the group and embedded into the website through a survey host (www.isalient.com); the survey is comprised of 7 questions and serves as a means of measuring how well the site and video provides exposure and increased awareness about the wetlands.

The domain name was determined by a mixture of our ideas (within the group) and feedback from the entire class (www.intoloscerritoswetlands.com) The domain was registered through GoDaddy.com and will be handed over to the instructors/department when and if they desire access. The site is also hosted on a GoDaddy Linux account that is prepaid for a year. All records of the registrar and hosting information will be provided to the instructor/department, but will go unchanged so that Michelle can access, update and maintain the site going forward. A backup CD will also be assembled for the instructors/department that has copies of all the artwork, fonts, sitefiles, hosting info, and registrar info.

The video was created by Tristan with the enlistment of several friends. Listed below are details about the equipment used and the people involved in the making of the video.

Equipment

- Cameras borrowed per Circle Take Media (circletake.com)
- DAT machine borrowed per CTM or 3 Entertainment (herskeleton.com).
- Boom mic, and wireless mics borrowed per CTM

Technical Positions

- Director - Tristan Hawks
- Producer - Arden DePalatis
- Director of Photography - Jim Hawks (relative)
- Creative Consultant - Gareth McClain (friend)
- Key Grip - Colin Mayer (friend)
- Set Design - Wade Mayer (friend)
- Sound/Score - Chris Pope (friend)

Filming occurred for two days: on March 30, 2008 and April 09, 2008. After filming it took about two weeks from April 1-16, 2008 to have the video edited and on the website.

In order to publicize the website and video/survey it was offered to two different classes as extra credit (Biology 350 – General Ecology and Geology 240 – Historical Geology). It was passed along by the three of us and the rest of our class by word of mouth. An email was supposed to go out to the ES&P department students, but fell through as the last minute for reasons unknown to the Econ team (apparently Austin Beahm never sent the email out). An email was also sent out to the college group at Arden's church and to Michelle's church group. Our sample population was therefore heavily weighted towards college age individuals. Not having a very diverse sample population could skew the results but we weren't really concerned with that, as our main goal was to get people to visit the site and to demonstrate that a website is an efficient way to give a survey.

Data Collection and Analysis

The survey and video were posted on the website on April 27th, 2008 and we gathered data from then until May 7th, 2008. On May 7th we exported the data from the survey and began analyzing the responses. The survey host generated some quick graphs of the data, but in order to figure out mean, mode, median and to demonstrate any type of regression analysis, we need to export the data in Microsoft Excel.

Information for the law and policy page on the website was collected by Arden. She used the information from Dr. Hall's lecture notes on "Pillars of Wetlands Law." She also used a handout from Eric Zahn's lectures on the Definitions of Wetlands. The collection of this information was done over a period of three weeks starting April 16 and finishing May 1, 2008.

Results

We received a total of 120 responses for the online survey and of those respondents 71.7% (86 individuals) were already familiar with the Los Cerritos Wetlands, which demonstrates that we were able to inform 28.3% (34 individuals) about the existences of the wetlands. That's 34 more people that are now aware of the wetlands that weren't aware prior this project.

We found that an overwhelming percentage of respondents believed that the wetlands should be restored (86.7%), and only 1.7% thought it should be developed (the remaining 11.7% wanted more information before making a decision).

Additionally, we found that 75.8% of respondents wanted to know more about the wetlands – that amounted to 91 people who were interested in learning more about the wetlands.

Also relevant to our results is the breakdown of ages and the fact that the majority of responses were solicited from students on the CSULB campus (see figure 1). A little over 70% of the responses came from students on the CSULB campus, which provides us with some indication of student positions, but it's hard to extrapolate these data to the general population at large. However, educating students is equal to educating the population because students won't always be students and the more they learn in school, the more aware they will be as members of the general population. So it does not follow that our results are less significant purely because they represent the views of a primarily student population – students are a significant part of the population and are much more likely to get involved in projects such as wetlands restoration.

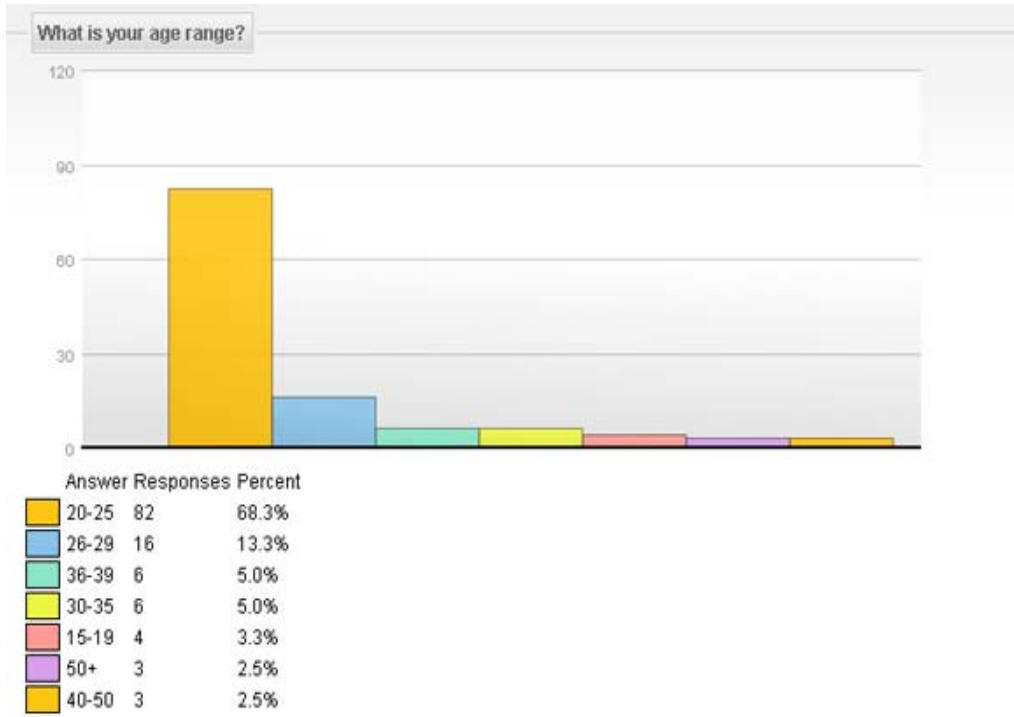
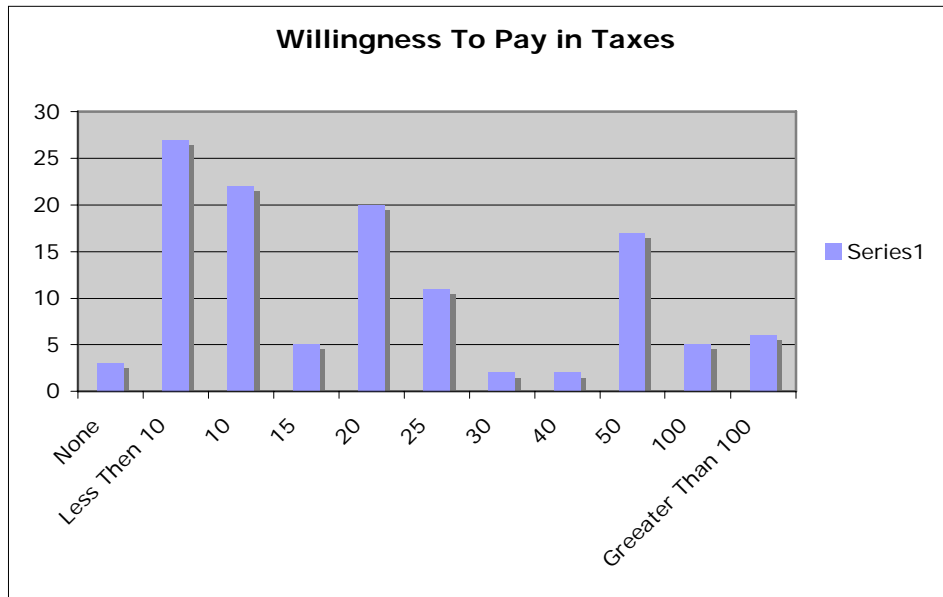
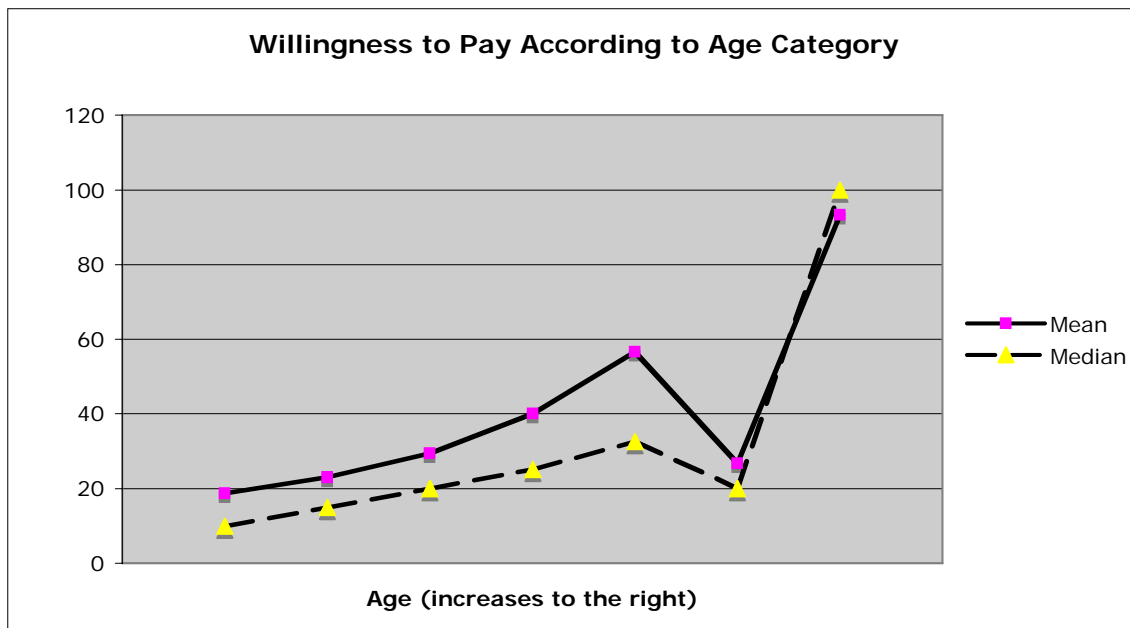
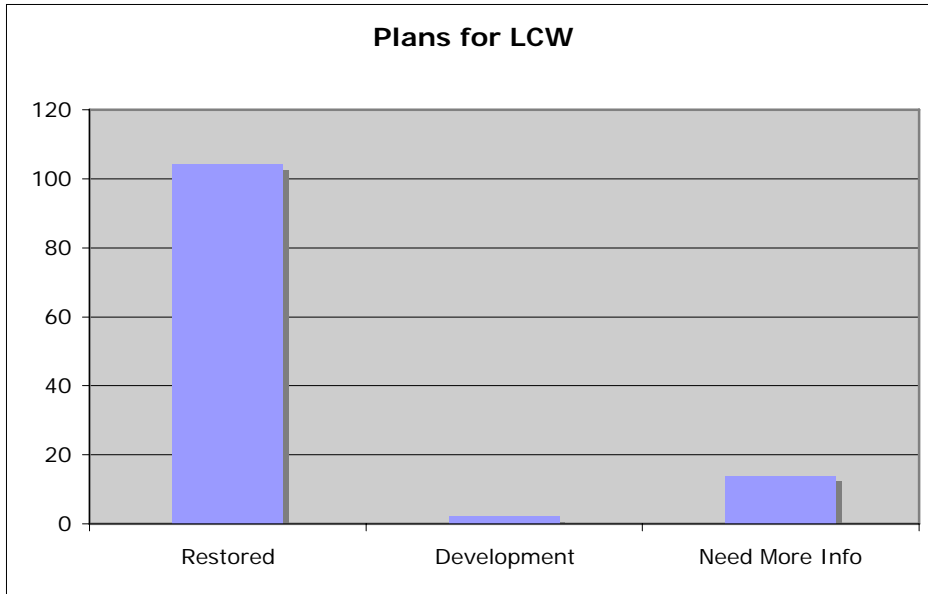


Figure 1





Graph 2.0

Further statistical analysis can be found in Appendix I.

Findings/discussion

We discovered that a high percentage of people were already aware of the existence of these wetlands which is likely not representative of the general population and due primarily to the fact that 86 responses were from students in Biology 350 which requires a field trip to the Los Cerritos Wetlands during the course of the semester. However, we still managed to provide

primary exposure to the Los Cerritos Wetlands to 34 people in a matter of two weeks (28.3%). This demonstrates a modicum of success in educating and exposing people to the wetlands, which is one of our primary goals in this project.

The majority of respondents also indicated an interest in restoring these wetlands which is good to know and should be encouraging both to those already working on restoration and to future classes who may wonder if there really is any interest in saving these lands. There is indeed an interest in saving these wetlands and students should present a good source for future research and even funds or labor.

The most exciting result of our survey was the discovery that 75.8% of respondents would like to find out more about the Los Cerritos Wetlands – we set out to build this website and create the video with the goal of providing an educational resource to students and the general public and it is encouraging to know that people are interested in knowing more and gained some awareness through the work we've done.

Though not discussed in detail in this report we did ask and gather information about people's willingness to pay taxes and people's willingness to donate money towards restoration of the wetlands (information can be found in graphs above and in Appendices I & III). The information regarding WTP in taxes was flawed by a survey design error discussed below. A graph of respondent's willingness to donate money and what amounts can be found in Appendix III – and indicated that people are generally willing to donate about \$27.00 towards restoration. This show us that if we were set up some type of donation page in the future that we could definitely make money for restoration without having to bother with taxation or WTP.

We also discovered that WTP increases with age as demonstrated in Graph 2.0 above.

There were some flaws in our survey design that we intend to correct on the survey going forward, but our results are impacted by these flaws as we decided not to correct the survey mid way through our survey period.

We asked a question about people's willing to pay taxes but failed to indicated during what period of time these taxes would be collected for; for example, we asked how much they would be willing to pay and then listed various amounts (borrowed from the 2006 ES&P Econ team) but we gave no indication as whether these taxes were to be assessed monthly or yearly. This strongly affects the total amounts of money we could potentially gather as some people may have been willing to pay \$10 a month, rather than \$10 a year which would affect the end amount by approximately \$120.

Another difficulty in successfully implementing our goals was the fact that we had 7 weeks from the time we turned in our proposal (march 26) to when we turned in our final report (may 14), and that is not a lot of time to produce a video, create a survey and design a website to, and still have plenty of time for people to take the survey, and time to analyze the data.

Conclusion

We have successfully begun creating awareness of the Los Cerritos Wetlands Complex and this is evidenced by the number of respondents who knew nothing about the wetlands before coming to our site. We've also discovered that there is a latent demand for restoring these wetlands and for finding out more about them.

People want to know about the wetlands and we have provided a way for them satisfy their desire by publishing information that we have access to as students of this course, as well as information that, though widely available on the internet, is difficult to find. Our website puts all of this information in one spot and presents it in an easy to use and aesthetically pleasing format that lends credibility to our work and the work of fellow students both past and present by offering the information we have to the public domain.

Appendix I

<i>Taxes</i>	
Mean	28.125
Standard Error	2.933114388
Median	20
Mode	5
Standard Deviation	32.13065828
Sample Variance	1032.379202
Kurtosis	3.522358565
Skewness	2.016640123
Range	130
Minimum	0
Maximum	130
Sum	3375
Count	120
Confidence Level(95.0%)	5.807859368

<i>Donations</i>	
Mean	27.45833333
Standard Error	2.628354755
Median	20
Mode	10
Standard Deviation	28.79218376
Sample Variance	828.9898459
Kurtosis	3.689122605
Skewness	1.977548266
Range	130
Minimum	0
Maximum	130
Sum	3295
Count	120
Confidence Level(95.0%)	5.204404862

Appendix II

Did you know that the Los Cerritos Wetlands existed before visiting this site?

Yes No

Do you think that the Los Cerritos Wetlands should be restored, or sold off to developers for housing and retail development?

- I'd like to know more about it before I make a decision.
- I think the land should be used for housing and retail development .
- I think it should be restored.

Which of these amounts would you be willing to pay in taxes in order to fund restoration of the Los Cerritos Wetlands?

- Less than \$10
- \$10
- \$15
- \$20
- \$25
- \$30
- \$40
- \$50
- \$60
- \$75
- \$100
- Greater than \$100
- None

Which of these amounts would you be willing to donate towards restoration of the Los Cerritos Wetlands?

- Less than \$10
- \$10
- \$15
- \$20
- \$25
- \$30
- \$40
- \$50
- \$60
- \$75
- \$100
- Greater than \$100
- None

How did you hear about this website/video?

- Referred by a friend
- Heard about it in school
- Linked from another site
- Received an email with a link to the site

Would you like to find out more about the Los Cerritos Wetlands?

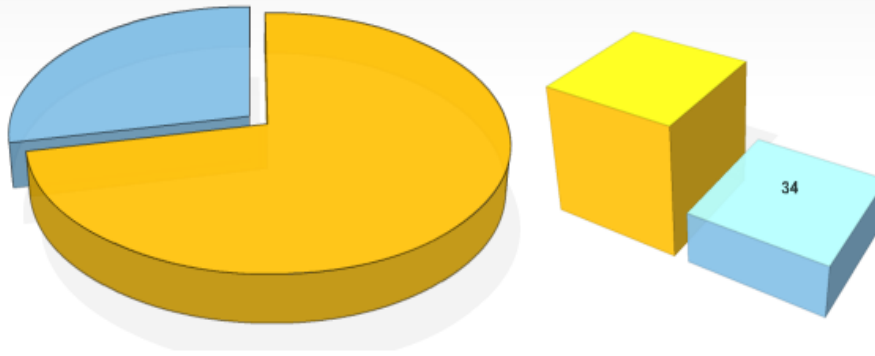
- Yes No

What is your age range?

- under 15
- 15-19
- 20-25
- 26-29
- 30-35
- 36-39
- 40-50
- 50+

Appendix III

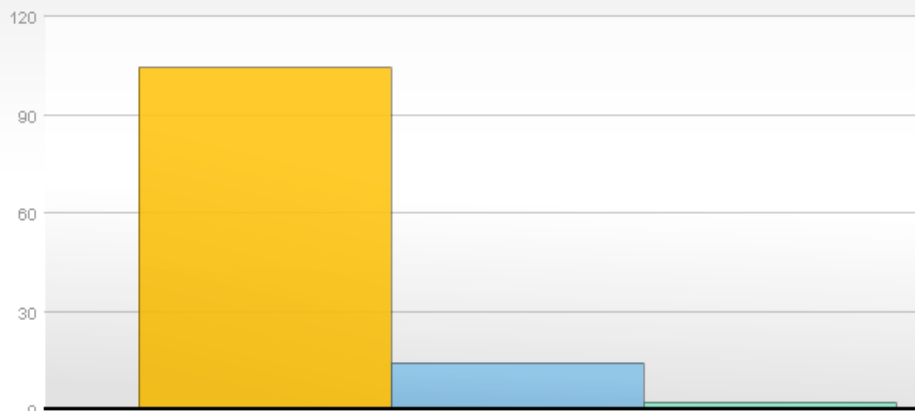
Did you know that the Los Cerritos Wetlands existed before visiting this site?



Answer Responses Percent		
Yes	86	71.7%
No	34	28.3%

[View Answers](#)

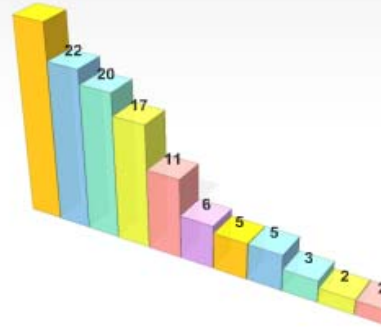
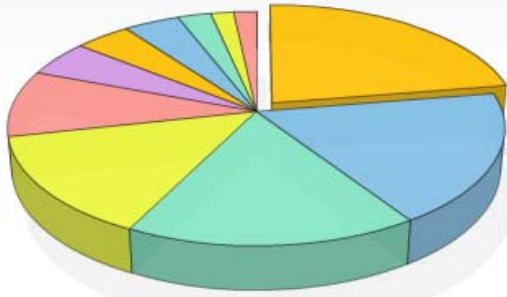
Do you think that the Los Cerritos Wetlands should be restored, or sold off to developers for housing and retail development?



Answer	Responses	Percent
I think it s...be restored.	104	86.7%
I'd like to ... a decision.	14	11.7%
I think the ...velopment.	2	1.7%

[View Answers](#)

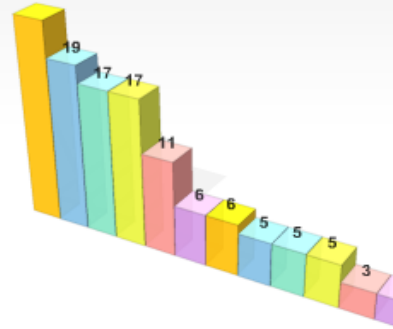
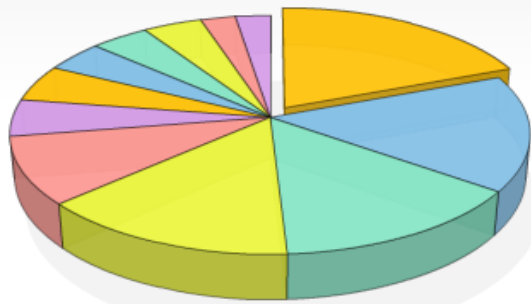
Which of these amounts would you be willing to pay in taxes in order to fund restoration of the Los Cerritos Wetlands?



Answer	Responses	Percent
Less than \$10	27	22.5%
\$10	22	18.3%
\$20	20	16.7%
\$50	17	14.2%
\$25	11	9.2%
Greater than \$100	6	5.0%
\$15	5	4.2%
\$100	5	4.2%
None	3	2.5%
\$40	2	1.7%
\$30	2	1.7%

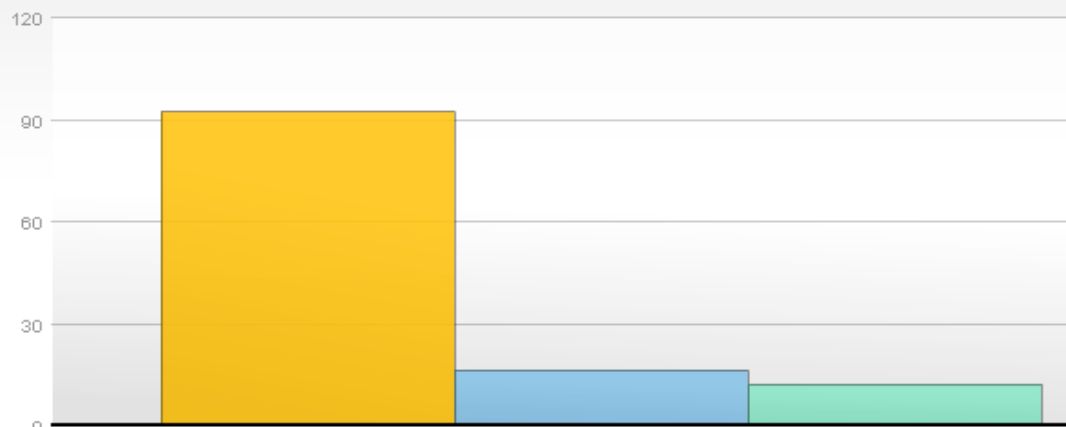
[View Answers](#)

Which of these amounts would you be willing to donate towards restoration of the Los Cerritos Wetlands?



Answer	Responses	Percent
\$10	23	19.2%
Less than \$10	19	15.8%
\$25	17	14.2%
\$20	17	14.2%
\$50	11	9.2%
\$100	6	5.0%
\$15	6	5.0%
None	5	4.2%
\$40	5	4.2%
\$30	5	4.2%
Greater than \$100	3	2.5%
\$75	3	2.5%

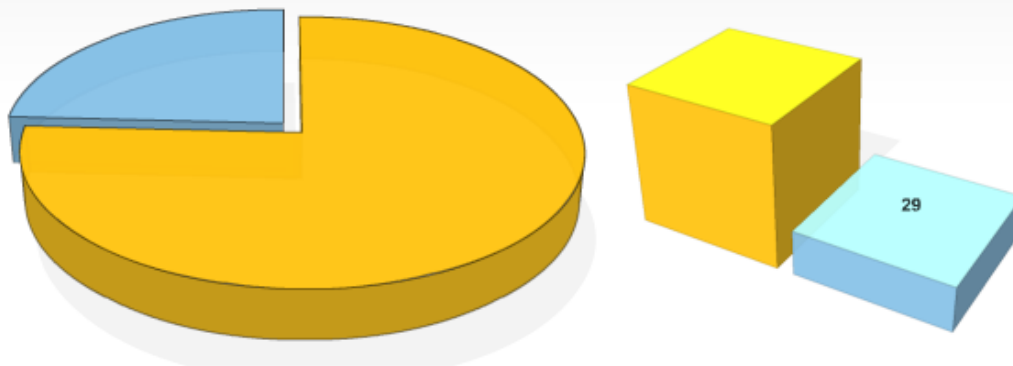
How did you hear about this website/video?



Answer	Responses	Percent
Heard about it in school	92	76.7%
Received an ... to the site	16	13.3%
Referred by a friend	12	10.0%

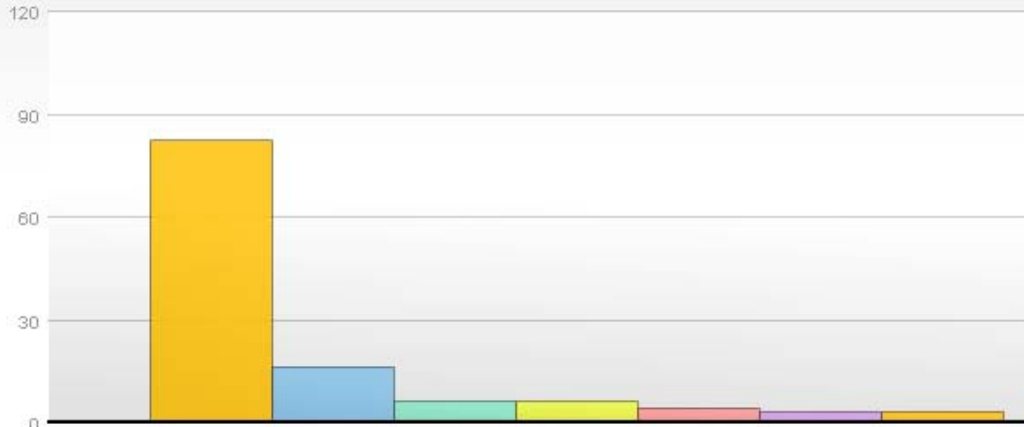
[View Answers](#)

Would you like to find out more about the Los Cerritos Wetlands?



Answer	Responses	Percent
Yes	91	75.8%
No	29	24.2%

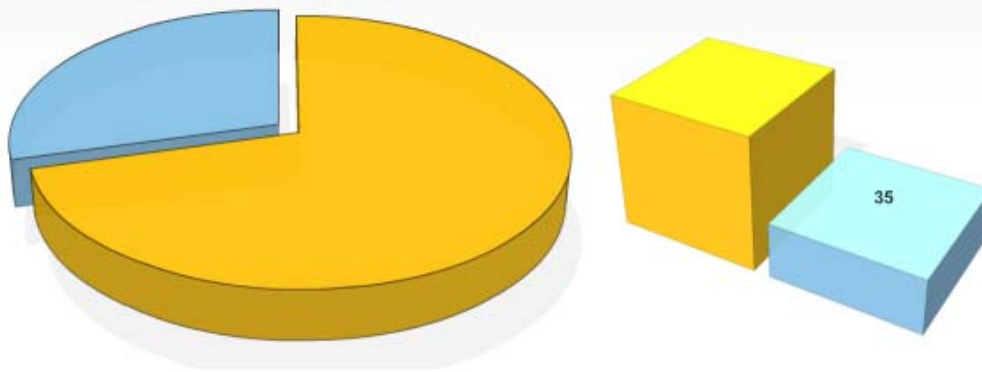
What is your age range?



Answer	Responses	Percent
20-25	82	68.3%
26-29	16	13.3%
36-39	6	5.0%
30-35	6	5.0%
15-19	4	3.3%
50+	3	2.5%
40-50	3	2.5%

[View Answers](#)

(Optional) Biology 350 students: provide name and student number to receive credit for taking the survey.



Answer	Responses	Percent
Responded	85	70.8%
No Response	35	29.2%