

# README: Using the Ranked Choice Voting System

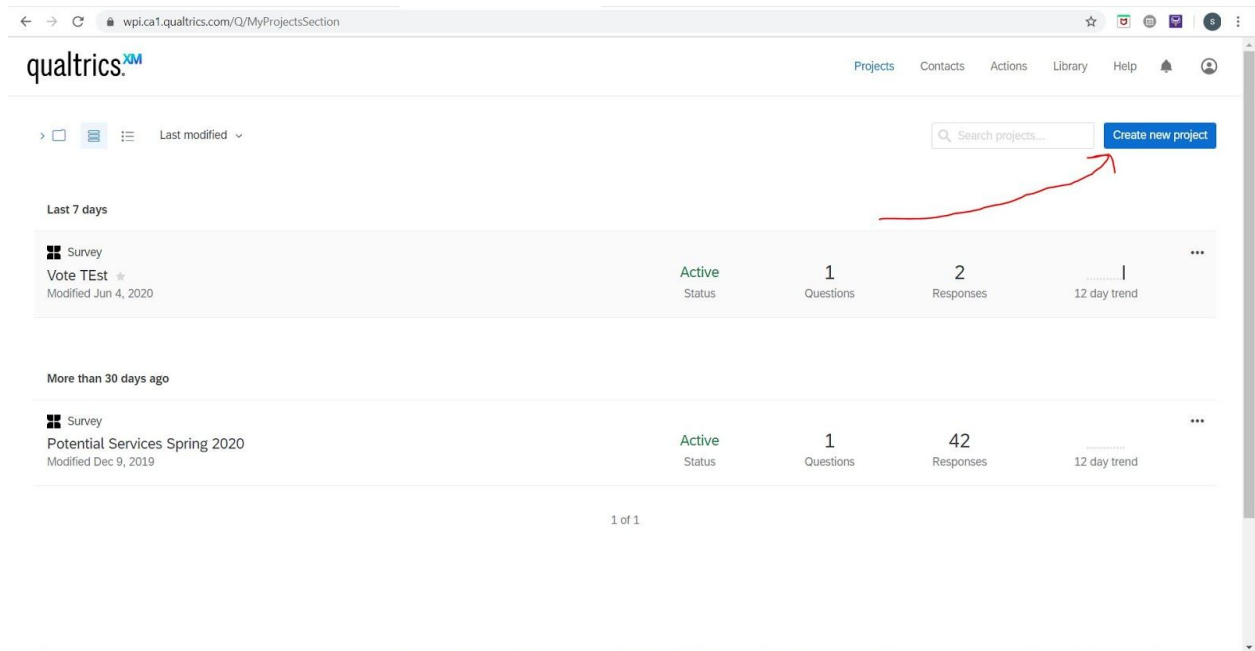
Updated by Patrick Roche, B-term 2020

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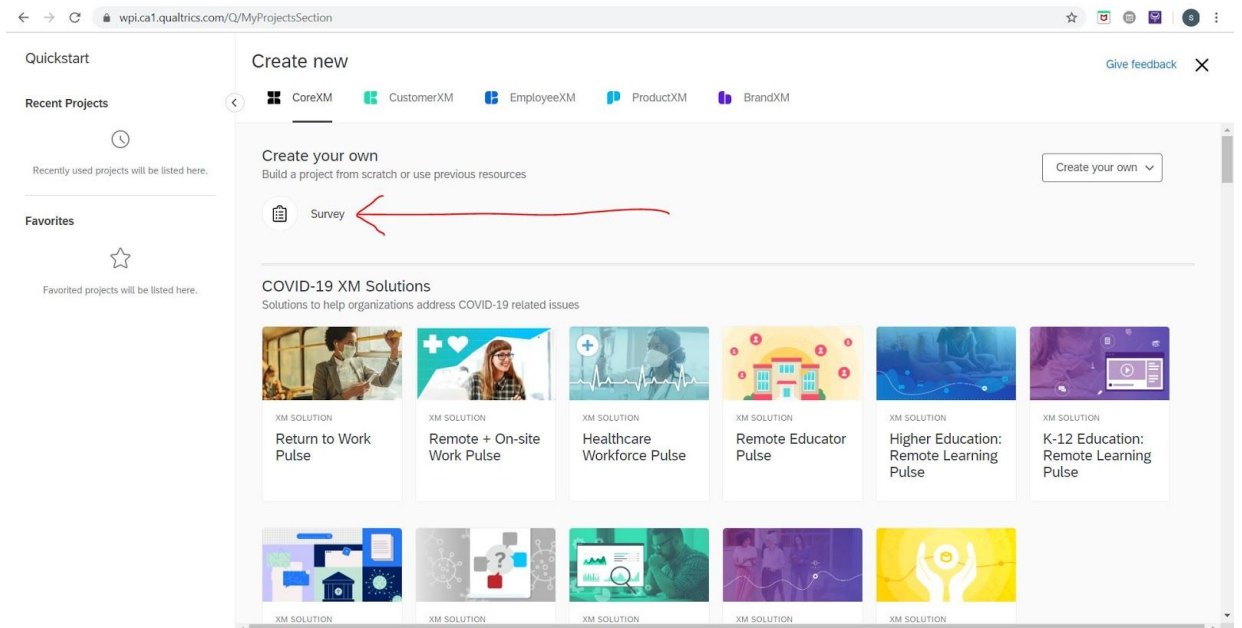
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# Making a Ranked-Choice Election Survey

- 1) Go to [wpi.qualtrics.com](https://wpi.qualtrics.com)
- 2) For each position up for election, click “Create New project”



- 3) Click ‘Survey’



- 4) Name the project using the template “APO [Position] Ballot [Semester, Year] and click ‘Get Started’

Quickstart

Recent Projects

Favorites

Create new

CoreXM CustomerXM EmployeeXM ProductXM BrandXM

Back

CREATE YOUR OWN

Survey

Start with a blank survey project and build it to suit your needs. [Learn More](#)

Project Name

Untitled Project

Blank Project From a Copy From Library From a File

Start with a blank survey project and build it to suit your needs.

Get Started

Features

Survey

In each survey, create one question with the “Rank Order” type. Each candidate for the position should be listed as a choice. **IMPORTANT NOTE: One choice MUST be “No Confidence”. One choice MUST be “Abstain”, spelled with a capital A. The question must have the “Force Response” box checked to ensure that blank ballots are not submitted by accident.**

APO President Ballot F20

iQ Score: Fair Draft Version

Change Question Type

Rank Order

Items

4

Automatic Items

Type

Drag and Drop

Radio Buttons

Text Box

More...

Validation Options

Force Response

Validation Type

None

Custom Validation

Actions

Default Question Block

Block Options

Q1 Rank your choices for President. If you wish to abstain, rank abstain first, otherwise leave it at the end.

Durtie the Turtle 1

Gilbert 2

No Confidence 3

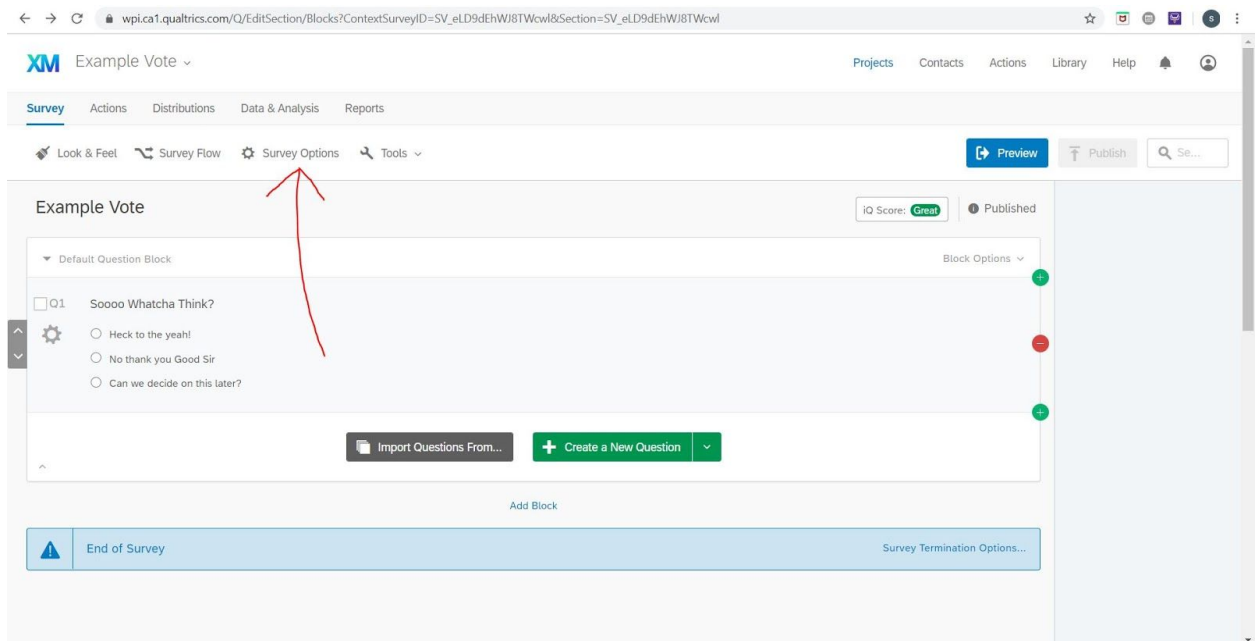
Abstain 4

Import Questions From...

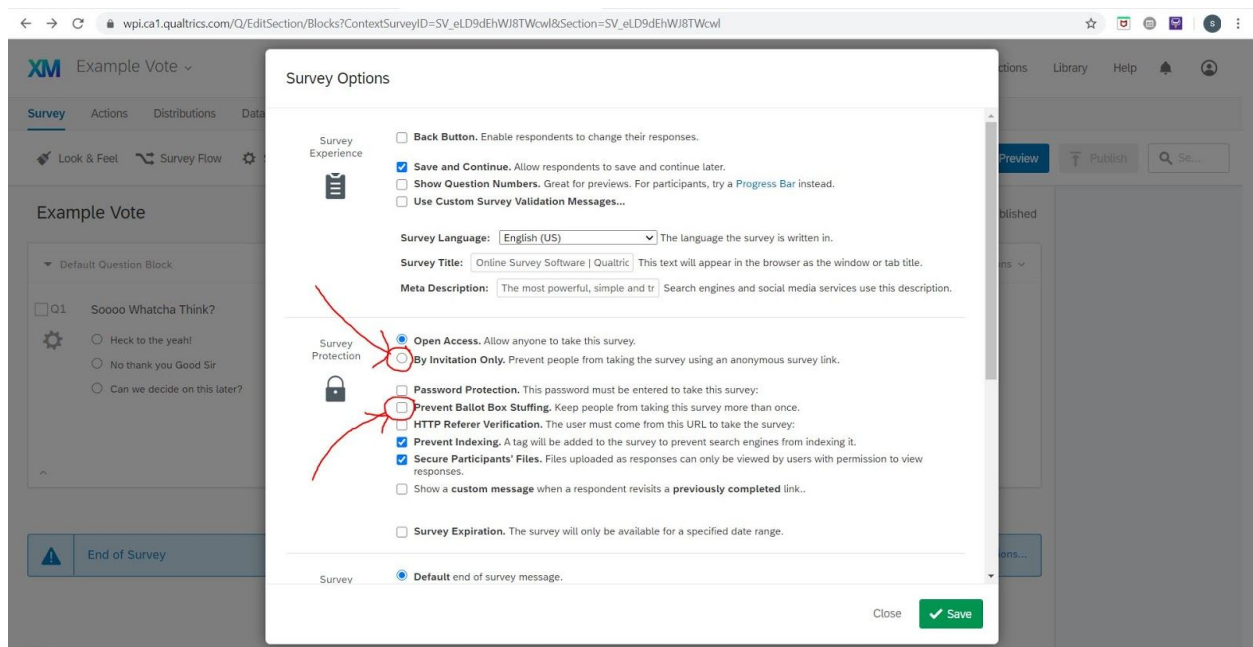
Create a New Question

Add Block

## 5) Click the 'Survey Options' button



**Make sure the following options are checked: “By Invitation Only” and “Prevent Ballot Box Stuffing”, together these will prevent double votes. Save these options**  
(This step is optional, but prevents double voting by any means)



## 6) Click Publish

The screenshot shows the Qualtrics survey editor for a survey titled "Example Vote". The interface includes a top navigation bar with "Projects", "Contacts", "Actions", "Library", and "Help". Below this is a secondary navigation bar with "Survey", "Actions", "Distributions", "Data & Analysis", and "Reports". The main editing area is divided into a left sidebar with a settings gear icon, a central question block area, and a right sidebar with configuration options.

**Question Block:** The central area displays a question block titled "Q1: Soooo Whatcha Think?". It contains three radio button options: "Heck to the yeah!", "No thank you Good Sir", and "Can we decide on this later?". Below the question block are buttons for "Import Questions From..." and "Create a New Question".

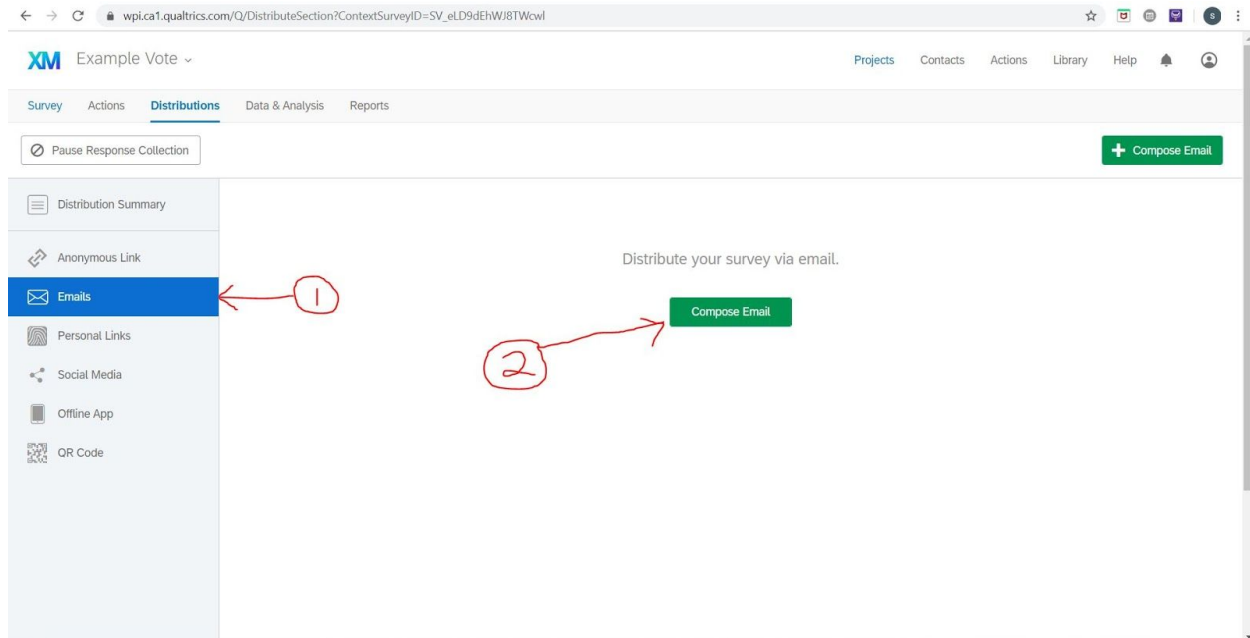
**Right Sidebar:** This sidebar contains several configuration sections:

- Change Question Type:** A dropdown menu currently set to "Multiple Choice".
- Choices:** A section showing "3" choices, with an "Edit Multiple" link and an "Automatic Choices" checkbox.
- Answers:** A section with "Single Answer" selected, and options for "Multiple Answer" and "More...".
- Position:** A section with "Vertical" selected, and options for "Horizontal" and "More...".
- Validation Options:** A section with "Force Response" unchecked.
- Validation Type:** A section with "None" selected, and options for "Custom Validation".

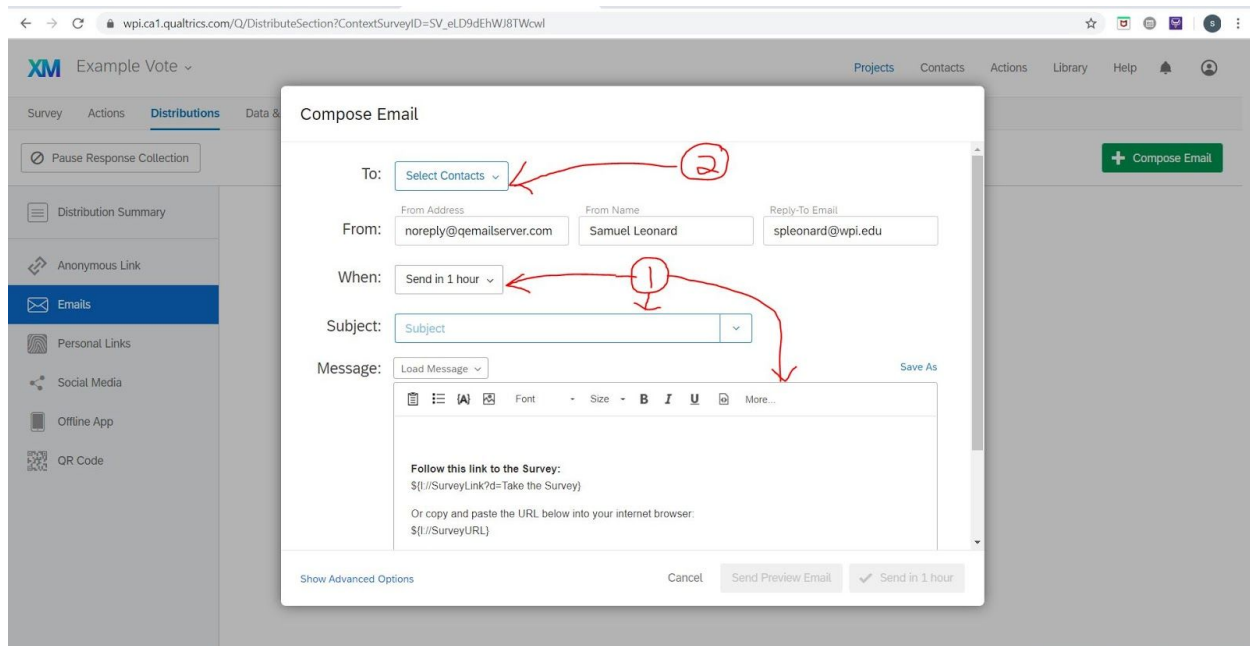
**Buttons:** In the top right corner, there are "Preview" and "Publish" buttons. A red arrow originates from the "Publish" button in the top right and points to the "Publish" button in the bottom right corner of the survey block area.

# Sending the Ballot to the Chapter

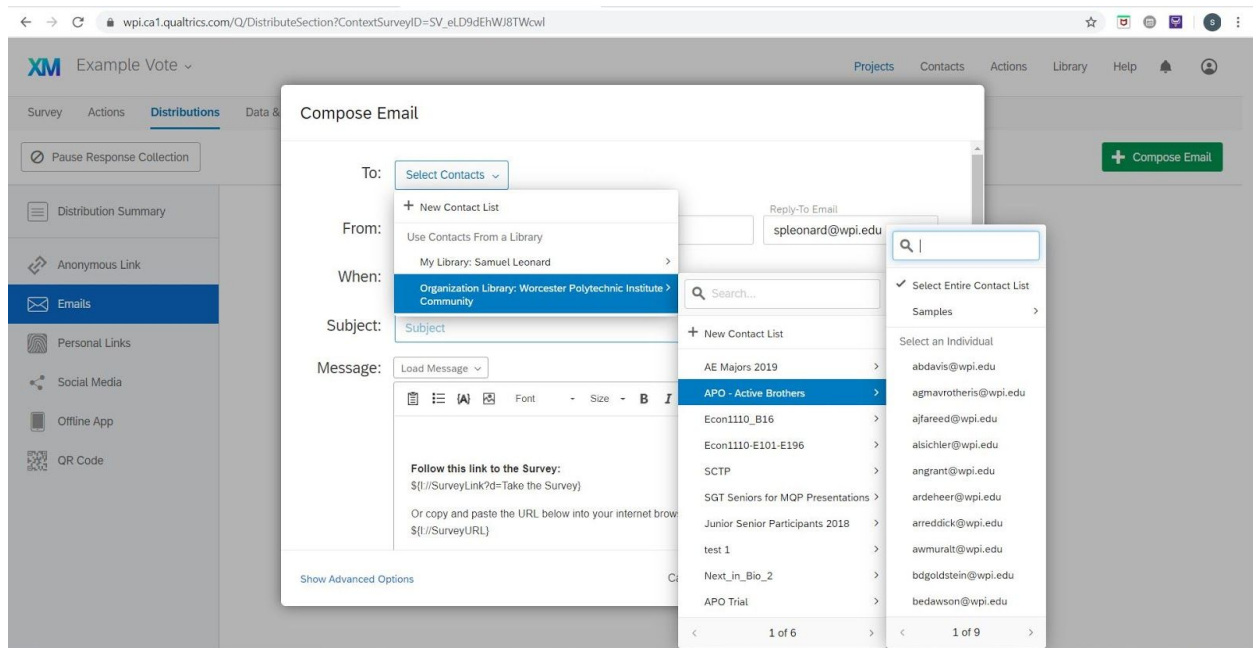
- 1) Click “Distributions”
- 2) Click on ‘Emails’ if not already selected, then ‘Compose Email’



- 3) Alter the Settings. All are pretty obvious, this will be going to the chapter so make sure to add [APO] in the subject. Also, it's probably best to send the 'send time' to 'now'.
- 4) After the email is set, click on contact list



- 5) Click on 'Organization Library: Worcester Polytechnic Institute Community' and then 'APO - Active Brothers' and then 'Select Entire Contact List'

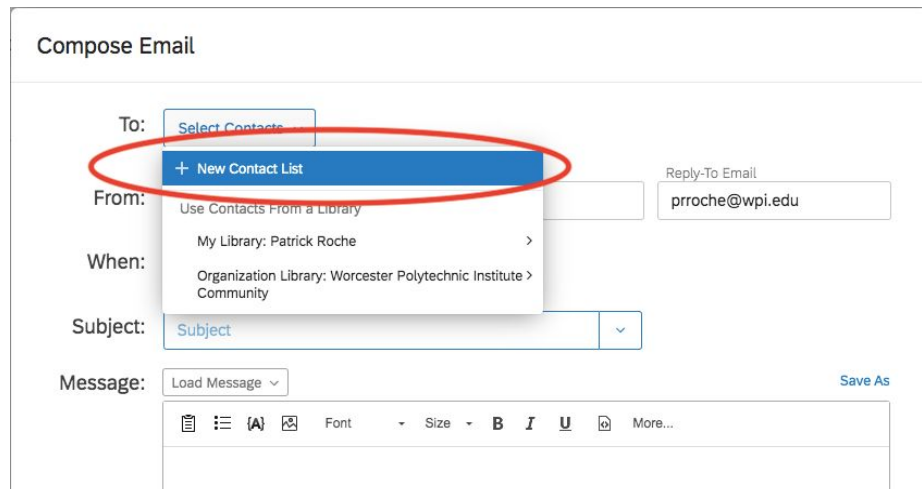


**IF THIS IS THE FIRST TIME THIS IS BEING USED EACH SEMESTER (OR TERM IF THERE WERE APPEALS), THIS EMAIL LIST MUST BE UPDATED (See next section)**

## Updating the Ballot List

**NOTE FOR CHAIR:** This task will likely be handled by the President and/or Sergeant at Arms, but you should be aware of how to do it.

- 1) In the “Compose email” menu, click on “New Contact List”.



- 2) Fill in the updated contact list with the names and contact information of voting-eligible brothers for the term of interest. Name the Contact list using the template “APO Ballot List [Term] [Year]”. Once every eligible brother has been added, click “create” to finalize the list.

### Create Contact List

Name

APO Ballot List B-term 2020

Email	First Name	Last Name	External Data Reference	Language	+
durtleturtle@wpi.edu	Durtle	The Turtle			

Cancel

+ Create



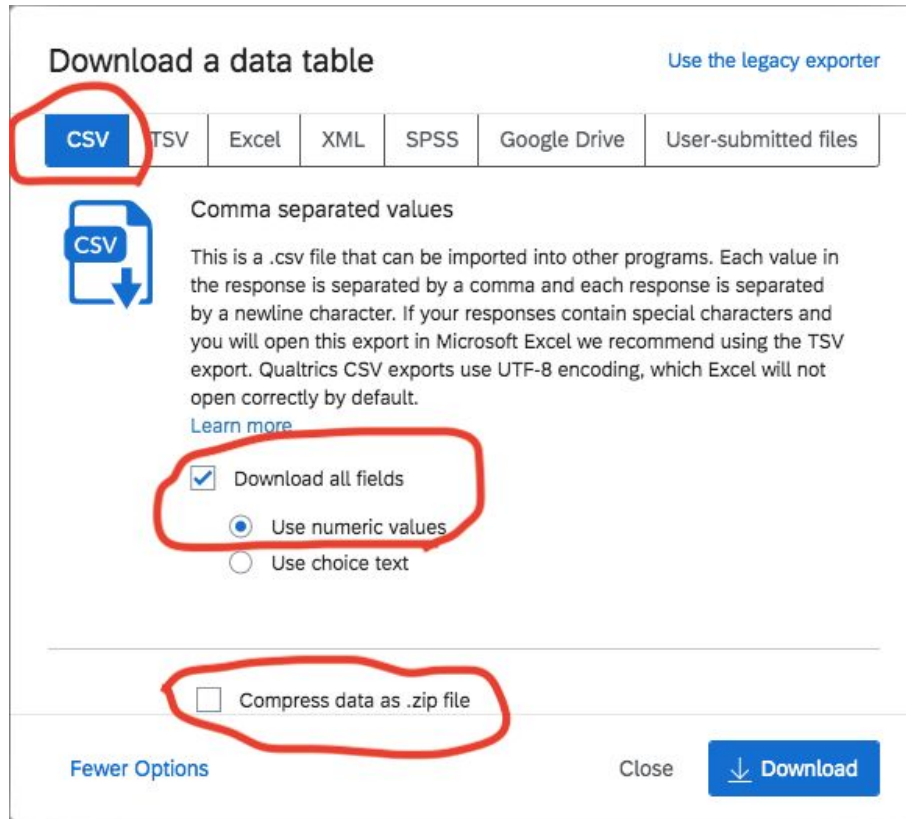
## Processing Ranked-Choice Results

- 1) Once everyone has voted in each survey, go to each survey and click “Data & Analysis”  
--> “Data” --> “Export and Import Data” dropdown menu

The screenshot shows the XM survey interface for the survey titled "What is the best animal?". The "Data & Analysis" tab is selected and highlighted with a red circle. A red arrow points from this tab to the "Export & Import" dropdown menu, which is also circled in red. The interface shows 6 recorded responses and 0 responses in progress. The table below lists the recorded responses.

	Recorded Date	Actions
<input type="checkbox"/>	Nov 8, 2020 3:10 PM	<input type="button" value="v"/>
<input type="checkbox"/>	Nov 8, 2020 3:10 PM	<input type="button" value="v"/>
<input type="checkbox"/>	Nov 8, 2020 2:55 PM	<input type="button" value="v"/>
<input type="checkbox"/>	Nov 8, 2020 2:55 PM	<input type="button" value="v"/>


- 3) Click on “Export Data” in the dropdown menu. Export the data table as a .csv file using numerical values. Deselect the compress file button, as the downloaded .zip sometimes does not contain the .csv.



The screenshot shows the 'Download a data table' interface. At the top, there is a title 'Download a data table' and a link 'Use the legacy exporter'. Below the title is a row of tabs: 'CSV', 'TSV', 'Excel', 'XML', 'SPSS', 'Google Drive', and 'User-submitted files'. The 'CSV' tab is selected and highlighted with a red circle. To the left of the text area is a 'CSV' icon with a download arrow. The text area explains that this is a .csv file and provides instructions for importing it into Excel. Below the text, there are three radio button options: 'Download all fields' (checked), 'Use numeric values' (selected with a blue dot), and 'Use choice text'. These options are grouped by a red circle. At the bottom, there is a checkbox labeled 'Compress data as .zip file' which is unchecked and also circled in red. At the very bottom, there are links for 'Fewer Options', 'Close', and a blue 'Download' button with a download icon.

Download a data table [Use the legacy exporter](#)

**CSV** TSV Excel XML SPSS Google Drive User-submitted files

 Comma separated values

This is a .csv file that can be imported into other programs. Each value in the response is separated by a comma and each response is separated by a newline character. If your responses contain special characters and you will open this export in Microsoft Excel we recommend using the TSV export. Qualtrics CSV exports use UTF-8 encoding, which Excel will not open correctly by default. [Learn more](#)

☒ Download all fields

☒ Use numeric values

☐ Use choice text

☐ Compress data as .zip file

[Fewer Options](#) [Close](#) [Download](#)

- 4) Download the election results data and rename it “Data.csv”. Move this file to the same directory as the InstantRunoff.py script file from the [Voting Systems Github repository](#). Run the script in your environment of choice to output the winner of each election. Please note that the script uses the pandas library, and that your Python environment must have access to that library for the script to run.
- 5) The script will print a message declaring the winner of the race!