

Donation Data Project



GRADE LEVEL

5-12 Ages 11-18

TIME Two full class periods

OVERVIEW

Students will utilize real-time statistics on organ donation to analytically examine the transplant crisis, to raise text-based questions, and to produce inquiries about donation. An extension focus on kidneys will support and advance students in their knowledge through a focused research project and presentation.

LESSON OBJECTIVE

Students will collect, analyze, and interpret real-time data and analyze the current state of organ donation in the United States using multiple representations.

COMMON CORE STATE STANDARDS

CCSS.ELA-LITERACY.RI.9-12.1; CCSS.ELA-LITERACY.W.9-12. 1. E, 2, 2.F, 9; CCSS.ELA-LITERACY.RST.9-12.1, 2. Addition of Kidneys in Crisis: CCSS.ELA-LITERACY.RST.9-12.7, 9; CCSS.ELA-LITERACY.SL.9-12.1.D., 2, 4; CCSS.ELA-LITERACY.W.9-12.7, 8, 9

Next Generation Science Standards

HS-LSI-1, LS1-2, LSI-3

PREPARATION

- Make photocopies of handouts for students
- Donation Data worksheet
- Computer access for online research

Lesson

****Students will require access to either a computer lab or cart for access to online statistics.**

1. Distribute "Waiting for a Second Chance" section of the Foundational Readings packet and have students read independently or in pairs.
2. Distribute Donation Data handout.
3. *Navigate to www.unos.org; select Data/view, data reports, National or State as needed.*
4. Students will create data reports to see how many individuals in their state, and nationally, are currently on the U.S. waiting list.
5. Students will use class time and HW time to research information and create a poster or data display with the information.
6. Students share their poster or display with the class. As an extension, students can display their posters around the school.

****Adapted from Donate Life Northwest curriculum:**

www.GoRecycleYourself.com



Donation Data

For this activity, you will use data from the United Network of Organ Sharing (www.unos.org) to find and analyze real-time data about individuals waiting for an organ transplant.

Navigate to www.unos.org select **Data/view**, **data reports**, **National** or **State** as needed

NATIONAL DATA :

The number of people waiting for organ transplants in the United States:

Overall by Organ

All Organs	Kidney	Liver	Pancreas	Heart	Lung	Intestine

Organ by Age

	Kidney	Liver	Heart	Lung
Under 5 years				
6-17 years old				
18-49 years old				
50+ years old				



National Data Continued:

Organ by Ethnicity

	Kidney	Liver	Heart	Lung
Caucasian				
African American				
Hispanic American				
Asian American				
Native American				
Pacific Islander				
Multiracial				

Organ by Gender

	Kidney	Liver	Heart	Lung
Male				
Female				



State Data

Select your state to find the following data:

Overall by Organ

All Organs	Kidney	Liver	Pancreas	Heart	Lung	Intestine

Overall by Age

	Kidney	Liver	Heart	Lung
Under 5 years				
6-17 years old				
18-49 years old				
50+ years old				

Overall by Ethnicity

	Kidney	Liver	Heart	Lung
Caucasian				
African American				
Hispanic American				
Asian American				
Native American				
Pacific Islander				
Multiracial				



Overall by Gender

	Kidney	Liver	Heart	Lung
Male				
Female				

ANALYZING THE DATA

What trends or patterns did you notice regarding the following?

Organ in highest need:

Age and transplant:

Ethnicity and transplant:

Gender and transplant:

CONCLUSION

Write an essay to explain visible trends in organ transplants, both nationally and in your state. Select impactful statistics to illustrate the issue clearly to a general audience. Then, write a short “elevator speech,” crafting a 30 second persuasive speech regarding donation.

Data Project Rubric

	4	3	2	1	Score:
Statistical Question	Valid statistical question that is clearly stated, focused, and interesting	Valid statistical question with two of the three characteristics: clearly stated, focused, interesting	Valid statistical question with one of the three characteristics: clearly stated, focused, interesting	Not a valid statistical question OR question lacks all three characteristics: clearly stated, focused, interesting	
Data Collection	Evidence of direct data collection by students. Data were collected in an appropriate manner to answer the statistical question. Raw data are included.	Evidence of direct data collection by students. Data were collected in an appropriate manner to answer the statistical question, but raw data are not included.	Evidence of direct data collection by students. Data were not collected in an appropriate manner to answer the statistical question.	No evidence of direct data collection by students.	
Data Display	Includes appropriate, well-labeled, accurate displays (graphs and tables) of the data.	Includes appropriate, accurate displays of the data.	Includes appropriate but not accurate displays of the data.	Does not include appropriate displays of the data.	
Data Analysis	Analysis of the data is accurate, thorough, and appropriate. Conditions are checked correctly for any inference procedures	Analysis of the data is appropriate, mostly accurate, and fairly thorough.	Analysis of the data is appropriate, but only somewhat accurate and thorough.	Analysis of the data is not appropriate or is missing.	
Conclusion	Conclusion includes a clear answer to the statistical question that is consistent with the data analysis and the method of data collection	Conclusion includes a mostly clear answer to the statistical question that is mostly consistent with the data analysis and the method of data collection	Conclusion includes an answer to the statistical question that is consistent with the data analysis but not with the data collection method	Conclusion does not include an answer to the statistical question that is consistent with the data analysis	
Reflection on Process	Gives a good overall picture of the project, what went well and what didn't, and includes ideas for further study	Gives a good overall picture of the project—what went well and what didn't—but no ideas for further study	Reflective thinking focuses on the positive aspects of the project only	No evidence of reflective thinking	

Overall Presentation	Attractive, well-organized, well-written project report.	Project report has two of the three qualities: attractive, well-organized, well-written	Project report has one of the three qualities: attractive, well-organized, well-written	Project report has none of the three qualities: attractive, well-organized, well-written	
	Adapted from: https://www.amstat.org			Total (out of 20)	