Hunger in Chicago
Primary Content Area: Algebra I

Introduction
The number or people in Chicago who are hungry is astonishing, and the need for food donations in Chicago is great as well. By completing a service-learning project that incorporates math skills with service to the community, you will be helping the Greater Chicago Food Depository, and your students will help individuals less fortunate than themselves while learning important math skills. While planning and reporting the number of cans collected during your food drive, there are many opportunities to incorporate math into the project. Also Algebra teachers can ask the Greater Chicago Food Depository for past/future collection statistics and or goals to find slope and use lines of best fit.

Project Goals
- Students will be able to use graphs to represent data.
- Students will be able to find rate of change and explain what it means within the context of the project.
- Students will be able describe graphs in context.
- Students will help the Great Chicago Food Depository achieve its food donation goals.
- Students will educate their peers about the need for support of people experiencing hunger in the Chicago area.
- Students will reflect upon their experience.

Procedure/Project Sequence
1. Invite a representative from the Greater Chicago Food Depository to inform students about the past, present, and/or future food needs in Chicago or plan a visit the Greater Food Depository.
   *Please note you will need at least one month prior to this step. You will need to contact the volunteer coordinator at the Greater Chicago Food Depository (773/247-3663) to schedule either a visit to the Food Depository or a time for a representative to visit your school.
2. Examine data given by the Greater Chicago Food Depository representative.
3. Complete a graphical representation of the data. Students can graph past, present, and future food needs using bar graphs, circle graphs, line graphs etc.
4. Find the rate of change for past, present, and future of food demands.
5. Organize your visit to the Greater Chicago Food Depository located on Chicago’s Southwest Side. Typically, volunteer groups are assigned to work 3-4 hour shifts throughout the week.
6. Plan a two week long food drive and set school collection goals and classroom learning goals.
7. Have students devise a presentation about the need for food donations to selected classrooms using graphs and data collected.
8. Chart daily food donations.
9. Announce results of food drive school-wide. The food collected can be donated to the Food Depository or a neighborhood food pantry. A list of neighborhood food pantries can be found at www.chicagosfoodbank.org.
10. Now that your class has participated in one strategy to address the problem of hunger in Chicago, brainstorm alternative solutions to hunger problems in Chicago. Students will then individually write a reflection on the solution preferred.
11. Evaluate strengths and weaknesses of project. Students will also suggest improvements for next school year.
Community Partners/Resources
Greater Chicago Food Depository
4100 West Anne Lurie Place
Chicago, IL 60632
773/247-3663
www.chicagosfoodbank.org

Visit the following websites for further information on hunger and possible ways to fight hunger:
Visit The Klein Foundation and click on "How to Take Action" for more service-learning resources addressing hunger.

Other useful websites:
Know Hunger
America's Second Harvest
Oxfam America
Heifer International

Addendum
This project addresses the following Common Core State Standards:
CCSS.MATH.CONTENT.HSA.CED.A.2
Create equations in two or more variables to represent relationships between quantities; graph equations on coordinate axes with labels and scales.
CCSS.MATH.CONTENT.HSA.CED.A.3
Represent constraints by equations or inequalities, and by systems of equations and/or inequalities, and interpret solutions as viable or nonviable options in a modeling context. For example, represent inequalities describing nutritional and cost constraints on combinations of different foods.
CCSS.MATH.CONTENT.HSA.REI.D.10
Understand that the graph of an equation in two variables is the set of all its solutions plotted in the coordinate plane, often forming a curve (which could be a line).

Duration
Students should spend 8-12 hours on the project which might include a local food drive and/or service experience at the Greater Chicago Food Depository.

Preparation: Data development and interpretation/Background on hunger problem – 3 hours
Action: Field experience at Food Depository/Conduct food drive – 3-7 hours
Reflection: Discussion/Writing to develop alternative solutions – 2 hours

Cross-Curricular Connections
Connections with social studies, art, and technology courses could be made during this project.