

What's a Fair Living Wage?

Part 1

Today, your group will figure out the hourly wage necessary for a family in Chicago to afford housing. You will look at real data about hourly wages (the amount of money you make per hour) and the cost of renting each month. Your goal is to use mathematics to decide whether or not you think six families in Chicago are paid fair wages.

Your Task: As a team, do the following: Figure out *how many hours each family needs to work to pay rent* for the type of apartment you think is best for the family.

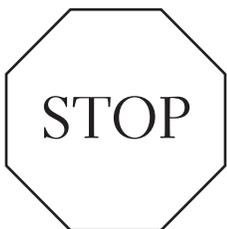
Guidelines

- Draw a graph and write an equation for each family's earnings over time.
- Use a different color pencil/marker for each family.
- Identify the dependent and independent variables.
- Use the following data about fair housing rental prices for monthly rent:

Studio	1 Bedroom	2 Bedroom	3 Bedroom	4 Bedroom
\$860	\$1,001	\$1,176	\$1,494	\$1,780

Data source: Huduser.gov

- Your team must work cooperatively to solve the problems. No team member has enough information to solve the problems alone!
- Each member of the team will select a family—Red, Green, Blue, Yellow, or Orange. **DO NOT SHOW** your card to your team. You may only communicate the information on the card.
- Everyone can see the PURPLE family card.
- Assume there are four weeks in one month.
- You might not need to use all the information on your card to solve the task.



Check in with your teacher before you answer the next questions.

Part 2

Use your team's graph and work to answer the following questions:

1. Who needs to work the fewest hours each month to pay rent? How did you determine this answer?
2. Who needs to work the most hours each month to pay rent? How did you determine your answer?
3. The Purple line and the Orange line intersect at a point, approximately $(64.52, 1677.42)$. What is the significance of this point? What does it mean with respect to the number of hours the family must work to pay rent?
4. Financial advisors recommend that you only use 30 percent of your monthly income to pay for rent. Do the number of hours you found to be needed to pay rent match 30 percent of the earnings for each family? If not, what kind of housing can the family afford with only 30 percent of their income?
5. According to the National Low Income Housing Coalition, a family in Illinois needs to make \$18.78 per hour to afford a moderate two-bedroom home. Does this match what you found? If not, what is the hourly wage necessary in Chicago for a family to afford a two-bedroom home?