

Simulating Redlining

Rules of the Simulation

Preparation: At the start of the simulation, each family group is assigned a race — in this simulation your family is either white or Black. Your family’s goal is to acquire the most wealth by the end of the simulation.

Each family begins with a house in either the red, yellow, blue, or green section of the map.

Where you put your house is based on the spin of the color wheel:

Color wheel for Black families: <https://spinthewheel.app/IEosvZZbLK>

Color wheel for white families: <https://spinthewheel.app/mVUtaLiSXP>

Home Values: At the start of the simulation a home in the

- Red area is worth \$10,000
- Yellow area is worth \$30,000
- Blue area or the suburbs is worth \$50,000
- Green area is worth \$75,000

The simulation ends after round six (each round represents six years). Home values appreciate — increase — based on where they are located:

- Red area: Home values appreciate by 1 percent **per year**
- Yellow area: Home values appreciate by 2 percent **per year**
- Blue area and green area: Home values appreciate by 4 percent **per year**
- Suburbs: Home values appreciate by 5 percent **per year**

You will not have to calculate appreciation — this will be calculated for you every round.

You can buy a new home at the end of a round based on your wealth (home value plus income).

Loans: White families that are not in debt (do not have negative wealth) can receive a 30-year home loan of \$50,000 at a 5 percent interest rate to move to the suburbs. Every subsequent round you will pay the bank \$10,500 and own 20 percent more of your home (to keep your math simple, however, the full value of your new home will be added to your family’s wealth the moment you take out the loan. In other words, you will ignore the growing 20 percent ownership until the end of the simulation).

If you take out a loan to buy a new home, call the banker over. The banker will help you calculate what happens* and will give you a loan card. Make sure to check off the loan card every round when you pay your loan. To keep your math simple, the debt from the loan also does not have to be factored into your family’s wealth until the end of the game. (This means that families that take out loans will have inflated wealth until the end of the game.) But this also means that if you take out a loan after the first round, the math can be a bit complicated at the end of the simulation, so call the banker over when the simulation ends.**

Racial covenants: Blue neighborhoods and the suburbs have racial covenants that forbid developers and owners from selling homes to buyers who are not white.

Income: At the beginning of each round someone in your group will roll a six-sided dice. Your roll will determine your income for the round. This is your family’s net income after six years and will carry over into the next round. Because white families have better access to higher paying jobs, die rolls produce unequal incomes:

White families:

- 1: -\$20,000
- 2: -\$10,000
- 3: 0
- 4: \$10,000
- 5: \$20,000
- 6: \$30,000

Black families:

- 1: -\$20,000
- 2: -\$10,000
- 3: 0
- 4: \$5,000
- 5: \$15,000
- 6: \$25,000

Debt: Low dice rolls may put you into debt. Debt becomes significant only as part of your total wealth. If your debt becomes greater than the value of your home, you must sell your house to the bank to pay off your debt.



Note to Teacher: Your main role during the simulation is to record what happens each round and track where families are moving on the simulation slideshow.

Your other role during the simulation is “the banker.” It can be useful to have a calculator to help students with the math of buying a home with a loan. Here are the two scenarios where they will likely need your help:

* If a family asks to take out a loan to buy a new home: They sell their old home and the value of the old home gets added to their income, then add the \$50,000 loan to their income as well, and subtract the price of the new home to get the income that they start with the following round. Make sure to write that down for them.

**If a family takes out a loan after the first round, they will not fully own their home at the end of the simulation. This will mean that the math for them is a little bit more complicated and they should call you over to help them calculate their final wealth. Here’s how you do it. Take the value of their home in the final round and calculate how much of that is their wealth based on how much of the home they own. For example, if a family moved to the suburbs in the second round and they’ve paid off four of their five loan payments — they own 80 percent of their home. Because a house in the suburbs is worth \$216,097 at the end of the simulation, that means that \$172,877.60 ($\$216,097 \times 0.8$) of that can be included in their wealth. Then subtract the final loan payment to get \$162,377.60 ($\$172,377 - \$10,500$). Finally, add whatever their final income was at the end of the simulation to get their final wealth. It is unlikely that more than one or two groups will need you to do this.



HANDOUT

Round 1 Worksheet

Group Number: ____ Neighborhood at the start of round: _____

Instructions
<ol style="list-style-type: none"> 1. Roll the dice. Write your income for this round under the box labeled “Income” below. 2. What is the current value of your home? Look at the new home values on the simulation board and write that in the “Home Value” box below. 3. What is your current wealth (<i>Your Income + your Home Value</i>)? Write that in the “Wealth” box below. 4. Do you want to buy a new home using either your wealth or a loan? (Y/N) <i>(If yes, call over the “banker.”)</i>

Income	Home Value	Wealth

Neighborhood at the end of round: _____

Round 1 Worksheet

Group Number: ____ Neighborhood at the start of round: _____

Instructions
<ol style="list-style-type: none"> 1. Roll the dice. Write your income for this round under the box labeled “Income” below. 2. What is the current value of your home? Look at the new home values on the simulation board and write that in the “Home Value” box below. 3. What is your current wealth (<i>Your Income + your Home Value</i>)? Write that in the “Wealth” box below. 4. Do you want to buy a new home using either your wealth or a loan? (Y/N) <i>(If yes, call over the “banker.”)</i>

Income	Home Value	Wealth



Neighborhood at the end of round: _____

Round ___ Worksheet Group Number: ____ Neighborhood at the start of round: _____

Instructions

1. What was your **income** at the end of last round: _____
(If you forgot, it is written on the simulation board for the previous round, if you took out a loan, make sure you got your new income from the “banker.”)

2. Roll the dice. Write your income for this round here: _____

3. Add your income from last round (answer to question 1) to your new income from this round (answer to question 2). Write that here: _____

4. Are you paying back a loan? (Y/N)

If NO, the answer you wrote to question 3 is your new income. Write that in the “**Income**” box below.

If YES, check off at least one box on your loan card and subtract \$10,500 from the previous question’s answer to get your final income for this round. (If you want to pay back more of your loan, call over the “banker.”) Write your final income in the “**Income**” box below.

5. The new home values for this round, accounting for appreciation, are written on the simulation board. Write the new value of your home in the “**Home Value**” box below.

6. What is your current wealth (*Your Income + your Home Value*)? Write that in the “**Wealth**” box below.

7. Do you want to buy a new home using either your wealth or a loan? (Y/N)
(If yes, call over the “banker.”)

Income	Home Value	Wealth

Neighborhood at the end of round: _____



Loan Card



Every time you pay off part of your loan check one of the boxes below.

When you have checked all the boxes your loan is fully paid off!
Congratulations!

Loan Card



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