

# 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:** The main role I played during the simulation is to record what happens each round. If possible, I'd give this role to a co-teacher or a student. Alternatively, if students have computers, you might have one student in each group take out a laptop, allowing them to edit the slideshow and tasking them with being the “recorder” for their group.

Your other role during the simulation is “the banker.” You help students with the math when they are buying a home, and you keep track/move the houses on the second map slide based on where students buy homes. Even though this last part could be given to a “recorder” — I would not recommend it. It's extremely important for the debrief that the maps accurately reflect what happened.

As 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 two scenarios where they will need your help:

- 1) **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. You might let them and other students know that their wealth will be inflated until the end of the simulation because they got a \$50,000 loan that will be paid back over the course of several rounds. Hand this group a loan card so they can keep track of their payments. *[For example: At the end of round 1, a family living in a red area with \$10,000 in income decides to take out a \$50,000 loan to move to the suburbs. They sell their home for \$10,000. Their income is now \$20,000 — \$70,000 when you add in the loan. They purchase a house in the suburbs for \$50,000. When you subtract the new home cost from their income, it means they start round 2 with \$20,000. But they will need to pay back \$10,000 of the loan, plus \$500 in interest every round.]*
- 2) **If a family takes out a loan after the first round:** This group will need to pay the remainder of their loan during round 6. It is unlikely that more than one or two groups will do this — but make sure to take note and plan to help those groups during the last round. You might tell those students when they are taking out a loan to make sure they call you for help during the final round. *[For example, if a family moved to the suburbs in round 2, by round 6 they should have paid off four of their five loan payments. On their “Round 6 Worksheet,” they will need to subtract \$21,000 instead of \$10,500 in step number 4 to fully pay back their loan. Because that is different from what the worksheet says, you will need to make that clear to them.]*

**HANDOUT**

Round 1 Worksheet

Group Number: \_\_\_\_ Neighborhood at the start of round: \_\_\_\_\_

Instructions
<ol style="list-style-type: none"> <li>1. Roll the dice. Write your income for this round under the box labeled “<b>Income</b>” below.</li> <li>2. What is the current value of your home? Look at the new home values on the simulation board and write that in the “<b>Home Value</b>” box below.</li> <li>3. What is your current wealth (<i>Your Income + your Home Value</i>)? Write that in the “<b>Wealth</b>” box below.</li> <li>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></li> </ol>

Income	Home Value	Wealth

Neighborhood at the end of round: \_\_\_\_\_

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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!

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