## Instructions

## Welcome

This is an experiment about decision making. Funds for this research have been provided by a grant. Please pay careful attention to the instructions. By following them carefully, you may earn considerable money that will be paid to you in cash at the end of the experiment.

You will never be asked to reveal your identity to anyone during the course of the experiment. Your name will never be associated with any of your decisions. In order to keep your decisions private, please do not reveal your choices to any other participant.

We have some simple yet very important rules:

- Do not communicate with anyone in the room except a coordinator.
- Please do not hesitate to ask questions. If you have a question, raise your hand and a coordinator will answer it.

In this experiment we are giving you a starting balance of $\$ 7$. Your earnings will ultimately depend on two things. First, before we get to the main experiment you will go through some examples. You will be paid by correctly performing calculations within the context of these examples. Second, your earnings will depend on the choices that you and the other participants make in the experiment.

We will read the instructions together; please follow along on your copy.

## The Setting

In this experiment you will be presented with six choice questions. For each question you will be asked to select among a set of options. Each option specifies an amount of two goods that would be provided and the total cost associated with their provision. We have labeled the two goods as Red and Blue. You value both Red and Blue goods in the sense that they are worth money to you if provided. Others in the experiment value these goods as well, although values differ across people.

You have all been given a Value Card that shows your per-unit value of Red and Blue goods. In other words, your Value Card tells you how much money you receive, per unit, when these goods are provided. Know that values differ across people so do not show anyone your card. Using your Value Card, you will be selecting options that you prefer, depending on how many units of Red and Blue goods are provided in each option and how much the option costs.

## Example choice question

In the experiment you will face choice questions similar to that in the following example.

Suppose the following three options were the only options available to produce Red and Blue goods. Please examine your Value Card and indicate which option you prefer by checking one of the boxes below.
\(\left.$$
\begin{array}{|l|c|c|c|}\hline & \text { Option A } & \text { Option B } & \begin{array}{c}\text { Option C: } \\
\text { Status Quo }\end{array} \\
\hline \begin{array}{l}\text { Number of Red goods provided } \\
\text { Number of Blue goods provided } \\
\text { Total cost per person }\end{array}
$$ \& 3 units \& 2 units \& 1 unit <br>
\& \$ 4 \& 3 units \& 1 unit <br>

\$ 6\end{array}\right]\)| $\$ 0$ |
| :---: |

If you choose Option A, you are indicating that you would prefer the option with these outcomes:

- Number of Red goods provided: 3 units.
- Number of Blue goods provided: 1 unit.
- Total cost per person: \$4.

If you choose Option B, you are indicating that you would prefer the option with these outcomes:

- Number of Red goods provided: 2 units.
- Number of Blue goods provided: 3 units.
- Total cost per person: \$6.

If you choose Option C, you are indicating that you would prefer the "Status Quo" option with these outcomes:

- Number of Red goods provided: 1 unit.
- Number of Blue goods provided: 1 unit.
- Total cost per person: \$0.

Based on your choice and the choices of the other participants, one of the options will be implemented for everyone in the experiment. Your earnings for the implemented option will be:

[^0]
## Understanding Earnings Calculations

It is very important for our research that you understand how your earnings will be determined in the experiment. We ask that you please answer the three questions below, using the following Example Value Card. Please note that this Example Value Card is different from the Value Card that you will use in the experiment. We will pay you $\mathbf{\$ 2}$ if you correctly answer all questions.

## EXAMPLE VALUE CARD

Your value of Red goods: \$2 per unit
Your value of Blue goods: \$2 per unit
For any option that is implemented, you will:

- Pay the cost of the option
- $\quad$ Receive your value of $\$ 2$ for every unit of the Red good provided
- $\quad$ Receive your value of $\$ 2$ for every unit of the Blue good provided
- Receive your starting balance of $\$ 7$

Suppose the following three options were the only options available to produce Red and Blue goods. Please examine your Example Value Card and indicate which option you prefer by checking one of the boxes below.

|  | Option A | Option B | Option C: <br> Status Quo |
| :--- | :---: | :---: | :---: |
| Number of Red goods provided | 2 units | 1 unit | 1 unit |
| Number of Blue goods provided | 1 unit | 3 units | 1 unit |
| Total cost per person | $\$ 8$ | $\$ 6$ | $\$ 0$ |

I choose: $\square$

1. Suppose that Option A is implemented for the group. Using the Example Value Card, what will your earnings be if Option A is implemented?
$\qquad$ $\times$ $\qquad$ units of Red goods
$+\longrightarrow^{\times}$ $\times$ $\qquad$ units of Blue goods

- _ Total cost per person
$+\quad$ Your starting balance of \$7
EARNINGS \$

2. Now suppose that instead Option B is implemented for the group. Using the Example Value Card, what will your earnings be if Option B is implemented?


EARNINGS \$ $\qquad$
3. Finally, now suppose that instead Option C is implemented for the group. Using the Example Value Card, what will your earnings be if Option C is implemented?


EARNINGS \$

Please stop and wait for the coordinator to go over the calculations with you.

## Determining which Option is Implemented

Based on the option that you select and the options that others in this experiment select, we will implement one and only one of the options for everyone in the group. We will do this using poker chips as follows. For each person that selects Option A we will place a white chip in the bag. For each person that selects Option B we will place a black chip in the bag. For each person that selects Option C we will place a green chip in the bag. In addition, the coordinators will place a number of blue chips - one for each person in the group - in the bag. Thus, half of the chips in the bag will be from the coordinator and the other half will be determined by participant decisions. We will then have a volunteer pull a chip out of the bag. The option that corresponds with the color of chip chosen will be implemented. If one of the blue chips is chosen, the coordinator will reveal whether Option A, B or C will be implemented. Note that the coordinators have written down on a piece of paper the option that corresponds to a blue chip.

Here is an example. Suppose there are 20 people in the group. Three people select Option A so we put 3 white chips in the bag. Seven people choose Option B so we put 7 black chips in the bag, and the rest choose Option C so we put 10 green chips in the bag. Because there are 20 people in the group, the coordinators will put 20 blue chips in the bag. If a white chip is drawn, Option A is implemented, if a black chip is drawn Option B is implemented, if a green chip is drawn Option C is implemented, and finally, if a blue chip is drawn the coordinators will reveal the option written down on the piece of paper that will be implemented.

## Earning money in this experiment

You will be paid for only one of the questions. After all six choice questions have been answered, we will ask a volunteer to roll a six-sided die. The number rolled will correspond to the question you will be paid for.

For this randomly selected question, we will use the procedure above to determine which option is implemented. Your earnings will be calculated by subtracting the cost of the selected option from your value of the units provided, plus your starting balance of $\$ 7$. Your value of the units provided will equal your per-unit value of the Red good multiplied by the number of Red units provided, plus your per-unit value of the Blue good multiplied by the number of Blue units provided.

Please note that you must pay the amount associated with the policy option that is drawn from the bag of chips, even if you selected another option while answering the choice question.

## Just about ready...

For all six choice questions there will be a "Status Quo" option where one unit of Red and one unit of Blue are provided at no additional cost to each person. The characteristics of the other options will vary from one question to the next.

For a particular Question, everyone faces the same options as you do. However, everyone will not see the questions in the same order. Finally, keep in mind that while the following six questions may seem similar, your responses to all questions are extremely important since any one of the six questions may be chosen by the roll of the die.

## Question 5

Suppose the following three options were the only options available to produce Red and Blue goods. Please examine your Value Card and indicate which option you prefer by checking one of the boxes below.

|  | Option A | Option B | Option C: <br> Status Quo |
| :--- | :---: | :---: | :---: |
| Number of Red goods provided <br> Number of Blue goods provided <br> Total cost per person | 1 unit <br> 3 units <br> $\$ 4$ | 1 unit <br> $\$ 4$ | 1 units <br> nnit | | $\$ 0$ |
| :--- |

In the event that this question is selected to determine your earnings, please use the space below to calculate your earnings.

Option implemented: $\qquad$
Your earnings based on this implemented Option:


## Question 2

Suppose the following three options were the only options available to produce Red and Blue goods. Please examine your Value Card and indicate which option you prefer by checking one of the boxes below.

|  | Option A | Option B | Option C: <br> Status Quo |
| :--- | :---: | :---: | :---: |
| Number of Red goods provided <br> Number of Blue goods provided <br> Total cost per person | 2 units | 1 unit unit | 1 unit |
|  | $\$ 4$ | 3 units | 1 unit |
| $\$ 2.50$ | $\$ 0$ |  |  |

In the event that this question is selected to determine your earnings, please use the space below to calculate your earnings.

Option implemented: $\qquad$
Your earnings based on this implemented Option:


## Question 3

Suppose the following three options were the only options available to produce Red and Blue goods. Please examine your Value Card and indicate which option you prefer by checking one of the boxes below.

|  | Option A | Option B | Option C: <br> Status Quo |
| :--- | :---: | :---: | :---: |
| Number of Red goods provided <br> Number of Blue goods provided <br> Total cost per person | 1 unit <br> 3 units | 2 units <br> 3 units | 1 unit <br> 1 unit <br> $\$ 2.50$ | | $\$ 4$ |
| :--- |

In the event that this question is selected to determine your earnings, please use the space below to calculate your earnings.

Option implemented: $\qquad$
Your earnings based on this implemented Option:


## Question 6

Suppose the following three options were the only options available to produce Red and Blue goods. Please examine your Value Card and indicate which option you prefer by checking one of the boxes below.


In the event that this question is selected to determine your earnings, please use the space below to calculate your earnings.

Option implemented: $\qquad$
Your earnings based on this implemented Option:
$\qquad$ $\times$ $\qquad$ units of Red goods
$+$ $\qquad$ $\times$ $\qquad$ units of Blue goods

- _ Total cost per person
$+\quad$ Your starting balance of \$7
EARNINGS \$


## Question 1

Suppose the following three options were the only options available to produce Red and Blue goods. Please examine your Value Card and indicate which option you prefer by checking one of the boxes below.

|  | Option A | Option B | Option C: <br> Status Quo |
| :--- | :---: | :---: | :---: |
| Number of Red goods provided <br> Number of Blue goods provided <br> Total cost per person | 2 units | 2 units | 1 unit |
|  | $\$ 4$ | 1 unit | 1 unit |
| $\$ 2.50$ | $\$ 0$ |  |  |

In the event that this question is selected to determine your earnings, please use the space below to calculate your earnings.

Option implemented: $\qquad$
Your earnings based on this implemented Option:


## Question 4

Suppose the following three options were the only options available to produce Red and Blue goods. Please examine your Value Card and indicate which option you prefer by checking one of the boxes below.
\(\left.$$
\begin{array}{|l|c|c|c|}\hline & \text { Option A } & \text { Option B } & \begin{array}{c}\text { Option C: } \\
\text { Status Quo }\end{array} \\
\hline \begin{array}{l}\text { Number of Red goods provided } \\
\text { Number of Blue goods provided } \\
\text { Total cost per person }\end{array}
$$ \& 2 units \& 1 unit \& 3 units <br>
1 \& \$ 2.50 \& \$ 4 \& 1 unit <br>

\$ 0\end{array}\right]\)| I choose: |
| :--- |

In the event that this question is selected to determine your earnings, please use the space below to calculate your earnings.

Option implemented: $\qquad$
Your earnings based on this implemented Option:

|  |  |
| :--- | :--- |
| + | $\times \ldots$ |
| + | units of Red goods |
| + | units of Blue goods |
| + | Your starting balance of $\$ 7$ |
| $\$$ |  |

## Questionnaire

Please answer the following questions. This is for our information only and your participation is optional. Your responses will only be associated with your subject identification number and will in no way affect your earnings.

1. What is your age? $\qquad$
2. What is your gender? (circle one) Male Female
3. What is your major? $\qquad$
4. What are you classified as for the current or upcoming semester? (circle one)

| Freshman | Sophomore | Junior | Senior |
| :--- | :--- | :--- | :--- |
| Master's Student | Law Student | Doctoral Student | Other |

5. What is your student status for the current semester? (circle one)

Full-time student Part-time student (taking fewer than 12 hours/semester)
Not a student Other (please specify)
6. How many economics courses have you taken at the university level? (include this term)
7. Have you previously participated in an economics experiment? (circle one) YES NO
8. On a scale of 1 ("poorly understood) to 5 ("well understood"), please indicate how well you understood the experiment instructions: (circle one) $1 \begin{array}{llllll} & 2 & 3 & 4 & 5\end{array}$
9. Have you ever voted in a state or national election (either in the U.S. or in your home country)? (circle one) YES NO
10. In your previous economics classes, have you studied the economics of public goods? (circle one) YES NO
11. How would you best describe your current employment situation? (circle one)

Full-time employment outside of the university
Part-time employment outside of the university
Student only
Work at the university/research assistantship


[^0]:    Your per-unit value of the Red good $\times$ the number of Red goods provided
    $+\quad$ Your per-unit value of the Blue good $\times$ the number of Blue goods provided

    - Total cost per person

    | + | Your starting balance of $\$ 7$ |
    | :--- | :--- |
    | $\$ \quad$ Your earnings |  |

