Instructions

This is an experiment in the economics of decision making. Funding for this research has been provided by the Ohio State University. The instructions are simple, and if you follow them carefully and make good decisions you may earn a CONSIDERABLE AMOUNT OF MONEY which will be PAID TO YOU IN CASH at the end of the experiment.

1. In this experiment you will act as voters that distribute funds between yourself and others in a series of budget allocation rounds. In each round you must decide on how to split a sum of money between yourself and four others. Proposals will be voted up or down (accepted or rejected) by majority rule; i.e., for proposals to pass they must get 3 or more votes.

2. In each budget allocation round you will have to decide how to divide 50 “francs.” You can make one of two types of allocations: (i) allocations to individual voters or (ii) allocations to the group of voters as a whole (called the group allocation). The details of this allocation process and the dollar value of the allocations will be discussed later. For now we will just go through the voting mechanics.

3. After you have all made your allocations, one of the proposed allocations will be selected at random to be voted on. Proposals will be posted on your computer screens with the proposed allocation to you and the other voters clearly indicated. You will then have to decide whether to accept or reject the proposed allocation. If the proposal passes (gets 3 or more votes) – the proposed allocation is binding and we will move on to the next budget allocation round. If the proposal is defeated (gets less than 3 votes), we move to a new stage within the budget allocation round. There will be a call for new proposals and the process will repeat itself. However, the francs available will shrink by 20%; i.e., if the first proposal is rejected there will be 40 francs available to split in stage 2. We will continue to move to the next stage until a proposed allocation is passed (gets 3 or more votes).

4. Francs allocated to the group as a whole – the group allocation – will yield 20 cents to everyone in the group for each franc allocated. For example, if you allocate 10 francs to the group everyone (including yourself) would get $2 dollars. And if you allocated 40 francs to the group everyone would get $8 dollars. And if you allocated 50 francs to the group everyone would get $10 dollars. Note the computer will help
to calculate how many dollars each member of the group will get from the group allocation.

You can also allocate francs to individual voters, but the conversion rate of francs to dollars will be different for different voters. For 2 voters in each group contributions to their individual allocations will yield 14 cents for each franc allocated. For the other 3 voters contributions to their individual allocations will yield 1.50 dollars for each franc allocated. What your particular conversion rate will be is determined randomly at the start of each bargaining round and will remain the same throughout each stage in the round. So, for example, if 10 francs are allocated to you individually and your yield is 14 cents per franc you would get $1.40, while if your yield is 1.50 dollars per franc you would get $15. It's important to notice that this means 2 voters in your group will always have individual yields below the yield on the group allocation, while 3 voters will always have individual yields above it.

Note that while you will not know the actual identities of the other players in your group, you will know what their individual yields are when you propose a division of the budget. You are free to allocate the francs in any way you see fit between individual voters and the group allocation. The only restriction is that you cannot allocate more or less than the 50 francs.

5. Payoffs are in dollars for each budget allocation round and are the sum of your dollar payoffs from the individual allocation and group allocation amounts. Here too the computer will make these calculations to assist you in deciding whether to vote for or against a proposed allocation and to help you to see the financial implications of your allocations.

6. At each stage you will have 30 seconds to make your proposal after which you will be prompted to make your decision. You will also have 30 seconds to vote on the proposal chosen for your group.

7. There will be a total of 15 rounds, one (1) practice round and fourteen (14) rounds played for cash.

8. At the conclusion of the experiment, one of the 14 rounds played for cash will be randomly selected by computer, and the money distributed according to the proposal that passed in that round. Thus, in each round, you should treat it as the round that you will be paid off on. All payments will be in CASH. In addition, each of you will receive an $8 participation fee for showing up.
9. There are a total of ___ voters in the room. In each round you will be assigned to one of ___ groups of five voters. Assignments to voting groups will vary randomly from round to round. Subject numbers too vary randomly but will always correspond to whether you have a yield of 1.50 dollars per franc or 0.14 dollars per franc for the individual allocation. If it is 1.50 your subject number will be 1, 2 or 3. If it is 0.14 your subject number will be 4 or 5. Remember that your individual allocation yield is randomly determined for each bargaining round but remains the same throughout each stage in the round.

10. Since we have an odd number of voters in the room, this means ___ of you will be sitting out each bargaining round. The computer decides randomly who is chosen to sit out unless you sat out during the last round in which case you are guaranteed to participate in the next round. If you are selected to sit out you will be notified with a message in the upper right-hand corner of your screen after submitting your proposal in stage 1. You will then need to wait for all groups to finish the bargaining round. Finally, if you are sitting out for the round randomly chosen to be paid out on, you will receive your payoff from the round prior to the chosen round.
Some examples might help clarify the voting and allocation process. The examples are not necessarily intended to be realistic, just to give you an idea how the process works. In all cases we will assume that there are 70 francs to be allocated.

**Example 1:**

[PUT EXAMPLE 1 SLIDE ON THE SCREEN.] This is Subject 1’s proposal. He proposes 65, 1.75, 3.25, 0, 0 francs respectively for subjects 1, 2, 3, 4 and 5 in his group and 0 for the group allocation. This would yield payoffs of $97.50 \((65 \times 1.50 + 0 \times 0.2)\), $2.63 \((1.75 \times 1.50 + 0 \times 0.2)\), $4.88 \((3.25 \times 1.50 + 0 \times 0.2)\), $0 \((0 \times 0.14 + 0 \times 0.2)\), $0 for subjects 1-5, respectively.

Now the votes could be accept, accept, accept, reject, reject – once again ordered by subject number – in which case the proposal would pass as it has a majority (3 of 5) votes. As such, if this round were paid off on each subject would get the dollar payoffs noted above.

Alternatively, the votes could be accept, reject, accept, reject, reject so the proposal does not receive a majority, and the round would go to the next stage. Each subject’s individual allocation yield will remain the same and in stage 2 there would be 56 francs to distribute \((70 \times 0.2 = 14\) francs subtracted from 70). A new set of proposals would be called for, one of which would be selected at random to be voted on and the voting process repeats itself.

**Example 2:**

[PUT EXAMPLE 2 SLIDE ON THE SCREEN.] This is Subject 4’s proposal. He proposes 70 francs for the group allocation and no francs to any individual allocations. This would yield $14.00 \((70 \times 0.2)\) for everyone (no one gets an individual allocation payoff). Now the votes could be reject, accept, accept, accept, accept in which case the proposal would pass as it has a majority of votes \((4 of 5)\). As such if this round were paid off on subjects 1, 2, 3, 4, and 5 would each get the dollar payoffs noted above. Alternatively, this proposal could fail to receive the necessary 3 votes in which case the round would go to the next stage.

**Example 3:**

[PUT EXAMPLE 3 SLIDE ON THE SCREEN.] This is Subject 5’s proposal. She proposes 62 francs for the group allocation and for subjects 1-5 individual allocations of 8, 0, 0, 0, 0, respectively. As such if this round were paid off on subject 1 would get $24.40 \((8 \times 1.50 from the individual allocation + 62 \times 0.2 from the group allocation)\), and subjects 2 through 5 would get $12.40 \((62 \times 0.20)\). Now the votes could be accept, reject, reject, accept, accept in which case the proposal would pass as it has a majority of votes \((3 of 5)\). Alternatively, this
A proposal could fail to receive the necessary 3 votes in which case the round would go to the next stage.

As you can see there are many possibilities here. What should you do? If we knew the answer to this question we would not have to conduct the experiment. You should do what you think is best.

**Review**

Let’s summarize the main points:

- The experiment will consist of 15 budget rounds, 1 practice and 14 for real. There may be several stages to each round.
- In each round there are five voters each controlling 1 vote. For a proposal to pass it requires 3 or more votes.
- At the start of each round you will propose a split of 50 francs between (i) a group allocation and (ii) individual allocations. Group allocations yield a payoff of 20 cents to every member of the group for each franc allocated. Individual allocations yield a payoff of 14 cents to 2 individuals and 1.50 dollars to 3 individuals in the group. Your individual allocation yield will vary randomly between bargaining rounds but will remain constant throughout each stage of a given round. You are free to divide the 50 francs in any way you wish between group and individual allocations. The only restriction is that your allocation must equal the number francs available to be allocated in that stage.
- Everyone will make a proposed allocation, one of which will be selected at random to be voted on. That is, each proposal in your group has an equally likely chance of being selected to be voted on at the beginning of a round.
- If the proposal receives 3 or more votes (a simple majority of the votes) it passes, the proposed allocation is binding, and the round ends.
- If the proposal gets less than 3 votes, it’s rejected, the number of francs to be allocated shrinks by 20%, we will solicit new proposals, and the process repeats itself. This will continue until an allocation passes.
- Payoffs in each round are in dollars and are the sum of the dollar payoffs from your individual and group allocation amounts.
• At the end of the 14 cash rounds, one round, selected at random will be paid off on. Your earnings will be equal to your dollar payoff for that round. You will also receive an $8 participation fee after all rounds are complete.

• In each round you will be randomly re-matched, so that the people in your group will change randomly from one round to the next. Subject numbers will vary randomly between rounds as well but will always correspond to whether your yield is 1.50 (subject #'s 1, 2 or 3) or 0.14 (subject #'s 4 or 5). Are there any questions?
Crossover Instructions

We are now going to conduct another 10 budget allocation rounds. The only
difference is in the number of subjects in each group with individual yields above and
below the yield on the group allocation.

In the next 10 budget allocation rounds, 3 voters in each group will have individual
allocation yields of 14 cents per franc and 2 voters will have yields of 1.50 dollars per
franc. As before, what your particular conversion rate will be is determined randomly
at the start of each budget allocation round and will remain the same throughout each
stage in the round.

This is the only change to the experimental design. All other rules and procedures
remain the same. At the end of these 10 rounds one of the first 14 rounds will be
selected to be paid off on as well as one of the 10 rounds with the new group
composition. As promised everyone will also receive an $8 participation fee.

Subject numbers will again vary randomly in the next 10 budget allocation rounds but
will always correspond to whether you have a yield of 1.50 dollars per franc or 0.14
dollars per franc for the individual allocation. If it is 1.50 your subject number will
be 1 or 2. If it is 0.14 your subject number will be 3, 4 or 5.

Are there any questions?
Instructions

This is an experiment in the economics of decision making. Funding for this research has been provided by the Ohio State University. The instructions are simple, and if you follow them carefully and make good decisions you may earn a Considerable Amount of Money which will be Paid to You in Cash at the end of the experiment.

1. In this experiment you will act as voters that distribute funds between yourself and others in a series of budget allocation rounds. In each round you must decide on how to split a sum of money between yourself and four others. Proposals will be voted up or down (accepted or rejected) by majority rule; i.e., for proposals to pass they must get 3 or more votes.

2. In each budget allocation round you will have to decide how to divide 50 “Francs.” You can make one of two types of allocations: (i) allocations to individual voters or (ii) allocations to the group of voters as a whole (called the group allocation). The details of this allocation process and the dollar value of the allocations will be discussed later. For now we will just go through the voting mechanics.

3. After you have all made your allocations, one of the proposed allocations will be selected at random to be voted on. Proposals will be posted on your computer screens with the proposed allocation to you and the other voters clearly indicated. You will then have to decide whether to accept or reject the proposed allocation.

   If the proposal passes (gets 3 or more votes) – the proposed allocation is binding and we will move on to the next budget allocation round.

   If the proposal is defeated (gets less than 3 votes), we move to a new stage within the budget allocation round. There will be a call for new proposals and the process will repeat itself. However, the francs available will shrink by 20%; i.e., if the first proposal is rejected there will be 40 francs available to split in stage 2. We will continue to move to the next stage until a proposed allocation is passed (gets 3 or more votes).

4. Francs allocated to the group as a whole – the group allocation – will yield 20 cents to everyone in the group for each franc allocated. For example, if you allocate 10 francs to the group everyone (including yourself) would get $2 dollars. And if you allocated 40 francs to the group everyone would get $8 dollars. And if you allocated 50 francs to the group everyone would get $10 dollars. Note the computer will help
to calculate how many dollars each member of the group will get from the group allocation.

You can also allocate francs to individual voters, but the conversion rate of francs to dollars will be different for different voters. For 1 voter in each group contributions to their individual allocation will yield 14 cents for each franc allocated. For the other 4 voters contributions to their individual allocations will yield 30 cents for each franc allocated. What your particular conversion rate will be is determined randomly at the start of each bargaining round and will remain the same throughout each stage in the round. So, for example, if 10 francs are allocated to you individually and your yield is 14 cents per franc you would get $1.40, while if your yield is 30 cents per franc you would get $3. It’s important to notice that this means 1 voter in your group will always have an individual yield below the yield on the group allocation, while 4 voters will always have individual yields above it.

Note that while you will not know the actual identities of the other players in your group, you will know what their individual yields are when you propose a division of the budget. You are free to allocate the francs in any way you see fit between individual voters and the group allocation. The only restriction is that you cannot allocate more or less than the 50 francs.

5. Payoffs are in dollars for each budget allocation round and are the sum of your dollar payoffs from the individual allocation and group allocation amounts. Here too the computer will make these calculations to assist you in deciding whether to vote for or against a proposed allocation and to help you to see the financial implications of your allocations.

6. At each stage you will have 30 seconds to make your proposal after which you will be prompted to make your decision. You will also have 30 seconds to vote on the proposal chosen for your group.

7. There will be a total of 15 rounds, one (1) practice round and fourteen (14) rounds played for cash.

8. At the conclusion of the experiment, one of the 14 rounds played for cash will be randomly selected by the computer, and the money distributed according to the proposal that passed in that round. Thus, in each round, you should treat it as the round that you will be paid off on. You will receive half of your earnings at the conclusion of today’s session and the remainder will be paid to you after the second session you signed up for. In addition to today’s earnings and your earnings in
Session 2, you will receive a $20 participation fee paid upon the completion of Session 2. All payments will be in CASH.

9. There are a total of ___ voters in the room. In each round you will be assigned to one of ___ groups of five voters. Assignments to voting groups will vary randomly from round to round. Subject numbers too vary randomly but will always correspond to whether you have a yield of 30 cents per franc or 14 cents per franc for the individual allocation. If it is 30 your subject number will be 1, 2, 3, or 4. If it is 14 your subject number will be 5. Remember that your individual allocation yield is randomly determined for each bargaining round but remains the same throughout each stage in the round.

10. Since we have an odd number of voters in the room, this means ___ of you will be sitting out each bargaining round. The computer decides randomly who is chosen to sit out unless you sat out during the last round in which case you are guaranteed to participate in the next round. If you are selected to sit out you will be notified with a message in the upper right-hand corner of your screen after submitting your proposal in stage 1. You will then need to wait for all groups to finish the bargaining round. Finally, if you are sitting out for the round randomly chosen to be paid out on, you will receive your payoff from the round prior to the chosen round.
Some examples might help clarify the voting and allocation process. The examples are not necessarily intended to be realistic, just to give you an idea how the process works. In all cases we will assume that there are 70 francs to be allocated.

**Example 1:**

[PUT EXAMPLE 1 SLIDE ON THE SCREEN.] This is Subject 1’s proposal. He proposes 65, 1.75, 3.25, 0, 0 francs respectively for subjects 1, 2, 3, 4 and 5 in his group and 0 for the group allocation. This would yield payoffs of $19.50 \( (65 \times 0.3 + 0 \times 0.2) \), $0.53 \( (1.75 \times 0.3 + 0 \times 0.2) \), $0.98 \( (3.25 \times 0.3 + 0 \times 0.2) \), $0 \( (0 \times 0.3 + 0 \times 0.2) \), $0 \( (0 \times 0.14 + 0 \times 0.2) \) for subjects 1-5, respectively.

Now the votes could be accept, accept, accept, reject, reject – once again ordered by subject number – in which case the proposal would pass as it has a majority (3 of 5) votes. As such, if this round were paid off on each subject would get the dollar payoffs noted above.

Alternatively, the votes could be accept, reject, accept, reject, reject so the proposal does not receive a majority, and the round would go to the next stage. Each subject’s individual allocation yield will remain the same and in stage 2 there would be 56 francs to distribute \( (70 \times 0.2 = 14 \text{ francs subtracted from } 70) \). A new set of proposals would be called for, one of which would be selected at random to be voted on and the voting process repeats itself.

**Example 2:**

[PUT EXAMPLE 2 SLIDE ON THE SCREEN.] This is Subject 4’s proposal. He proposes 70 francs for the group allocation and no francs to any individual allocations. This would yield $14.00 \( (70 \times 0.20) \) for everyone (no one gets an individual allocation payoff). Now the votes could be reject, accept, accept, accept, accept in which case the proposal would pass as it has a majority of votes (4 of 5). As such if this round were paid off on subjects 1, 2, 3, 4, and 5 would each get the dollar payoffs noted above. Alternatively, this proposal could fail to receive the necessary 3 votes in which case the round would go to the next stage.

**Example 3:**

[PUT EXAMPLE 3 SLIDE ON THE SCREEN.] This is Subject 5’s proposal. She proposes 55 francs for the group allocation and for subjects 1-5 individual allocations of 8, 7, 0, 0, 0, respectively. As such if this round were paid off on subject 1 would get $13.40 \( (8 \times 0.3 \text{ from the individual allocation } + 55 \times 0.2 \text{ from the group allocation}) \), subject 2 would get $13.10 \( (7 \times 0.3 + 55 \times 0.2) \) and subjects 3 through 5 would get $11.00 \( (55 \times 0.2) \). Now the votes could be accept, accept, reject, reject, accept in which case the proposal would pass as it has a
majority of votes (3 of 5). Alternatively, this proposal could fail to receive the necessary 3 votes in which case the round would go to the next stage.

As you can see there are many possibilities here. What should you do? If we knew the answer to this question we would not have to conduct the experiment. You should do what you think is best.

**Review**

**Let's summarize the main points:**

- The experiment will consist of 15 budget rounds, 1 practice and 14 for real. There may be several stages to each round.
- In each round there are five voters each controlling 1 vote. For a proposal to pass it requires 3 or more votes.
- At the start of each round you will propose a split of 50 francs between (i) a group allocation and (ii) individual allocations. Group allocations yield a payoff of 20 cents to every member of the group for each franc allocated. Individual allocations yield a payoff of 14 cents to 1 individual and 30 cents to 4 individuals in the group. Your individual allocation yield will vary randomly between bargaining rounds but will remain constant throughout each stage of a given round. You are free to divide the 50 francs in any way you wish between group and individual allocations. The only restriction is that your allocation must equal the number francs available to be allocated in that stage.
- Everyone will make a proposed allocation, one of which will be selected at random to be voted on. That is, each proposal in your group has an equally likely chance of being selected to be voted on at the beginning of a round.
- If the proposal receives 3 or more votes (a simple majority of the votes) it passes, the proposed allocation is binding, and the round ends.
- If the proposal gets less than 3 votes, it’s rejected, the number of francs to be allocated shrinks by 20%, we will solicit new proposals, and the process repeats itself. This will continue until an allocation passes.
- Payoffs in each round are in dollars and are the sum of the dollar payoffs from your individual and group allocation amounts.
- At the end of the 14 cash rounds, one round, selected at random will be paid off on. Your earnings will be equal to your dollar payoff for that round.
In each round you will be randomly re-matched, so that the people in your group will change randomly from one round to the next. Subject numbers will vary randomly between rounds as well but will always correspond to whether your yield is 0.3 (subject #s 1, 2, 3 or 4) or 0.14 (subject # 5). Are there any questions?
**Crossover Instructions**

We are now going to conduct another 10 budget allocation rounds. The only difference is in the conversion rate of francs to dollars for the 4 subjects in each group with individual yields above the yield on the group allocation.

In the next 10 budget allocation rounds, 1 voter in each group will still have an individual allocation yield of 14 cents per franc. However, 4 voters will now have individual allocation yields of 60 cents per franc. As before, what your particular conversion rate will be is determined randomly at the start of each budget allocation round and will remain the same throughout each stage in the round.

This is the only change to the experimental design. All other rules and procedures remain the same. At the end of these 10 rounds one of the first 14 rounds will be selected to be paid off on as well as one of the 10 rounds with the new conversion rate. As promised everyone will also receive the $20 participation fee and the remainder of your earnings from the earlier session.

Subject numbers will again vary randomly in the next 10 budget allocation rounds but will always correspond to whether you have a yield of 60 cents per franc or 14 cents per franc for the individual allocation. If it is 60 your subject number will be 1, 2, 3, or 4. If it is 14 your subject number will be 5.

Are there any questions?