

Perceptions of the Gains to Work

A Report on a Pilot Experimental Investigation

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1. Introduction

This project was initialised by an approach from the Department for Work and Pensions who remarked that "...one of the gaps we have identified in our evidence base is around how people perceive the financial gain to work". Two elements seem to be important: how the work offer was framed; and how much subjective or objective risk was associated with it. The DWP suggested that an experimental economics approach may help to shed some light on these issues. We agreed, but cautioned that this was not an area in which experiments had been used in the past, and therefore it would be best to run a pilot study first to assess the potentialities of the approach before embarking on a full-scale study. This report is concerned with this pilot study. It was carried out at the end of April 2007 with a total of 48 participants, recruited from a DWP register of people on Income Support. In essence, the experiment presented the participants (individually) with 15 different Work Tasks (differing both in their frame and in the amount of uncertainty implicit in the task) and elicited the reservation wages¹ of the participants for each of these 15 Work Tasks. Preliminary analysis of the data shows that reservation wages are lower (that is participants are more willing to work) if the wage related to the work task is presented in the form of a total amount of money, and are lower still if they are presented in the form of a percentage increase over existing income. Moreover, increased uncertainty in the task increases the reservation wage. These results are interesting but are based on a very small number of participants. More interesting is the success or otherwise of the pilot as an experiment and as a precursor to a larger study. We found that the basic structure of the experiment was successful but that more thought needed to be given to the wording of the instructions and the nature of the leisure task offered to the participants as an alternative to working. We elaborate on these lessons for the future in the concluding section of this report.

2. Motivation and Background

This study was motivated by the desire of the DWP to know more about how the perceptions of the gains from work affected people's willingness to accept work. These perceptions concern not only the framing of the work offer but also the amount of riskiness with the offer. The DWP approached John Hey and asked him to explore the possible use of experimental methods to investigate these issues. His response was that a field experiment was the most obvious kind of experiment, but if that was not possible, one could design an experiment in the laboratory in which participants were given a series of choices between some leisure option and some work option (for which the participants would be paid – over and above any participation fee). After an interactive sequence of discussions, during which John Hey contacted other members of the experimental economics community, it was decided that the best format was a design which elicited the reservation prices of participants for different kinds of work tasks, so that the sensitivity of the reservation wage to the framing of the work task and its inherent uncertainty could be assessed.

¹ The reservation wage of an individual is the wage at which the individual is indifferent between working and not working – so he or she will not work for a lower wage and will work for a higher wage.

3. Evolution of the experimental design

It was decided that the experiment would be conducted in the EXEC laboratory at the University of York and that it would be computerised. Participants would be seated at individual computer terminals and the computer would prompt the participants to reveal their reservation wages. However, rather than simply asking the participants to state their reservation wages, it was decided to follow the methodology standard in experimental economics of incentivating the participants appropriately. This implied, in this context, giving the participants a series of choices between some leisure option and some work task, asking them which they preferred, and then at the end picking one of the series of choices at random and implementing the preferred choice of the participant on that particular choice. If they said that they preferred the leisure option then they would be given the leisure option; if they had said that they preferred the work task option then they would have to carry out the work task. The work tasks would differ not only in what the participants were asked to do, but also in the framing of the statement of the work task. At this point discussion took place on the specification of the leisure option and of the work tasks. The fact that the experiment was to be conducted in the laboratory put constraints on both of these. The choice of the leisure option appeared to be easy: we would give the possibility of watching one of a set of videos; this could be easily implemented while the participant was seated at the computer terminal. The choice of the work tasks was more difficult – they would again have to be tasks that the participant could carry out while seated at the computer terminal. It was decided to build the various work tasks upon a base work task in which participants were asked to type in numbers displayed on the screen into a box on the screen. A preliminary set of work tasks was selected, which were designed upon various different rates of pay depending upon the number of numbers correctly entered during the duration of the experiment. This was decided to be two hours; participants carrying out the leisure option would be required to stay in the laboratory, after the video had finished, until the two hours were up. This latter ensures that there is no time difference between the leisure and the work option.

At this point, given the basic design of the experiment, a software expert was recruited to build the appropriate experimental software. In essence, this software presented the participants with a sequence of screens on each of which there was one work task. On each work task screen, there was a series of questions each asking the participant if they preferred the leisure option to the work task option. The questions differed in the rates of pay for the work task – with the questions in sequence, with low rates of pay at the top and high rates of pay at the bottom. An example is shown in the figure in the Instructions (which were given to the participants) in Appendix 1, which is a screen shot from the pilot experiment. This type of screen is known as a Price List, and has been used intensively in experimental economics². The idea is that the participants choose the leisure option for low rates of pay, the work option for high rates of pay, and that their reservation wage can be inferred as somewhere between the highest rate of pay at which they choose the leisure option and the lowest rate of pay at which they choose the work option. There should be a single switch-over point; otherwise the participant is displaying odd preferences. The software also displayed the instructions, asked the participants to complete a brief demographic questionnaire and implemented either the leisure option or the work task option.

Then a pre-pilot study, with just 10 student participants was run to assess the feasibility of the design, the clarity of the Instructions and the robustness and appropriateness of the software. The main findings of this pre-pilot was that the software was fine in principle but needed tweaking in its details, that the Instructions were clear and understandable, but that the work tasks needed to be rethought. First, the preliminary set that had been chosen was deemed to be inappropriate to the target population (those on income support) and there was not enough variation in the work tasks to

² It is usually attributed to Holt and Laury (2002)

satisfy the objectives of the project. In the pre-pilot there were just four different work tasks. There followed a period of intensive discussions with the DWP, and eventually 15 work tasks were evolved – which are listed in the Instructions in Appendix 1. The list of videos on offer can also be seen in these Instructions.

4. The Work Tasks

All the work tasks involved entering numbers, written on the computer screen, into a box on the screen. To stop the participants simply doing nothing, in all work tasks they had to enter a minimum number correctly in order to qualify for the extra payment.

Central to the experiment are these work tasks. It will be seen from the list in the Instructions in Appendix 1 that the 15 work tasks are in five blocks of three. Within each block the three different work tasks, a, b and c, differ solely in the way that the rate of pay for the job is framed: in work tasks a, the frame is a *rate of pay per minute*; in work tasks b, the frame is a *rate of pay for the two hours*; and in work tasks c, the frame is a *percentage increase* in pay over the participation fee of £25. The numbers chosen were such that the implied amounts of pay are exactly the same on the corresponding questions on the three work tasks. So, for example, the seven different rates of pay in work task 1a (that shown in Figure 1) were 0 pence, 3 pence, 6 pence, 9 pence, 12 pence, 15 pence and 18 pence *per minute*. These are exactly the same over two hours as the seven different rates of pay in Work Task 1b – which were £0, £3.60, £7.20, £10.80, £14.40, £18.00 and £21.60 for the two hours. They are also exactly the same over two hours as the seven different rates of pay in Work Task 1c – which were 0%, 14.4%, 28.8%, 43.2%, 57.6%, 72.0% and 86.4% expressed as percentage extra over the participation fee of £25. Thus a comparison of the elicited reservation wages between work tasks a, b and c enables us to assess how the *framing* of the wage offer affects the individual's willingness to work.

The five blocks differ in terms of the amount of objective or subjective risk in the task. In the first block (work tasks 1a, 1b and 1c) there is no risk. In the second block (where the rate of pay depends on how many numbers they enter), there is subjective risk in that participants might not know how many numbers they will be able to enter correctly. In the third block, there is extra subjective risk as additionally participants are not told until the end how many numbers they have entered correctly. In the third block there is objective risk – as the rate of pay depends upon the toss of a coin. Finally in the fifth block there is additional objective risk – now in terms of their return from choosing the leisure option. Note, however, that this final block is the only block in which they might also get paid for watching a video.

If the participants are risk-averse and understand that the framing of the questions within the work blocks is irrelevant, then we might expect that $r_1 < r_2 < r_3$, that $r_1 < r_5 < r_4$, where r_i denotes the (unique) reservation wage in block i . But the whole point of the experiment is to see whether this is true, and, if not, to see what the various patterns in the elicited reservation wages are.

The various rates of pay in the work tasks are listed in Table 1.

5. The leisure option

It was decided to make this the watching of a video, from a list of videos. There were twenty videos on this list, chosen from the most recently released videos and varying in their type. It was thought that this list provided an appropriate attraction to the leisure option. The pilot showed that we were wrong in this supposition.

6. The Pilot Experiment

This was carried out in the EXEC laboratory at the University of York on the 25th and 26th of April 2007 in four sessions each with approximately 12 participants, giving a total of 48 participants. They were recruited by Ecotec from a register of people on Income Support. Appendix 4 (to be provided by Ecotec) describes the composition of the recruited sample. The sample was designed to be representative of the target population. At each session the participants were greeted by John Hey and taken to the laboratory where they were given an initial verbal briefing (see Appendix 2) and then the written Instructions in Appendix 1. They had all been promised a participation fee of £25 and the repayment of any expenses necessary to attend the experiment. After they had finished reading the Instructions, they called over an experimenter who asked them if they had any questions, and after responding to any, let them start the experiment. When they had finished they called over an experimenter and then, in view of the experimenter, selected at random one work task and one question on that work task. The computer then recalled their preference on that question and then implemented the chosen choice. Those participants who had chosen the leisure option on that question were given headphones and allowed to watch the video of their choice. Those participants who had chosen the work option on that question started the work task. After the two hours were up, the participants again called over an experimenter (who then tossed a coin to determine the rate of pay, if necessary). The participants then signed the receipt, were paid and were free to go. John Hey took the opportunity of quizzing the participants about their reaction to the experiment. From start to finish the experiment lasted between two and a half and two and three quarter hours depending upon the speed of the participant.

7. The participants in the pilot experiment

Given the target population, the participants came with differing skills and abilities. One of the participants had multiple sclerosis and was in a wheel chair. She came with a helper but had difficulty in using the mouse and in entering numbers into the computer. Nevertheless she completed the experiment successfully. Another participant had difficulty in reading and brought a helper to read the Instructions. However, he had no difficulty in reading numbers and entering them into the computer. A third suffered from panic attacks and brought a helper to keep him calm.

At this point it might be useful to point out a rather unexpected phenomenon of the experiment. Twelve³ out of the 48 participants said that they would choose the work option *at any rate of pay* – including zero. John Hey made a point of asking these participants why they had done so. There were three sets of responses:

1. Some of these twelve said that they did not like watching videos.
2. Some of these twelve said that they felt morally obliged to work – they had come to the experiment and were being paid £25 for doing so and they felt that they had to give something in return.
3. One of them thought that it was some kind of test – put out by the DWP – as to whether they were seriously looking for work.

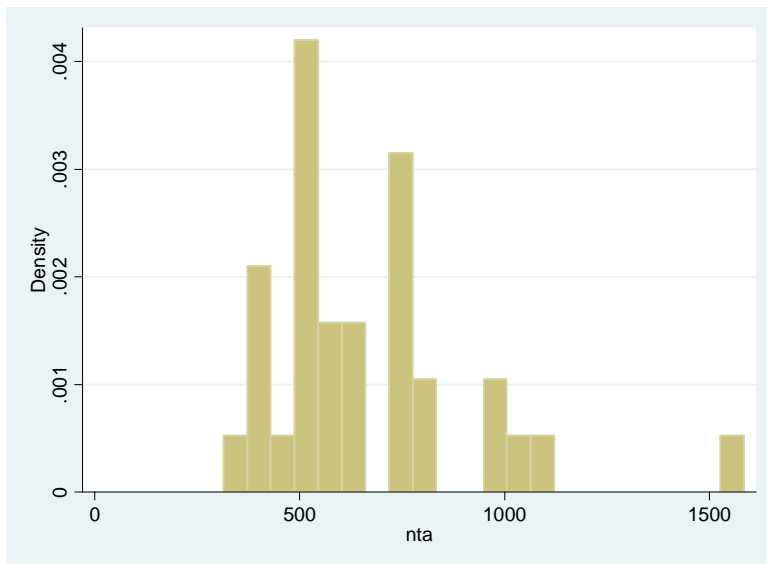
We will comment later on the implications.

³ Participants 1, 4, 11, 17, 19, 20, 23, 24, 26, 27, 31 and 48.

There was also one participant⁴ who would not work at any rate of pay. Unfortunately he or she was not asked why, and one can only make suppositions.

There were also six participants⁵ who extensively gave answers for which they would switch from choosing the leisure option to choosing the work option through the seven questions on the work screen. For such participants there is no way to infer a reservation wage and one can only presume that they were confused. However, one of these five participants did this for the first few work task screens and then switched to consistent behaviour. When asked why he had done this he reported that he had not understood the experiment at the beginning but then later realised what he was ‘meant’ to do.

Interestingly, the rate of actual work (for those participants who completed a work task) was very high. In most of the work tasks the participants had only to enter 250 numbers to qualify for the payment (and in some others 500 to qualify for a higher payment). Nevertheless these participants kept on working long after they could have stopped. The figure below shows the histogram of the total number of numbers entered. This is related to the point made above – that many participants felt that they ‘ought’ to work.



It may be of interest to illustrate the reservation wages of the participants in the various work tasks. In the graphical analysis that follows we exclude 26 participants for whom the graphical display does not help. These consisted of participants in one or other of two groups: (1) participants whose reservation wages were almost always constant throughout all work tasks⁶; (2) participants who appeared not to have a reservation wage on a majority of the tasks – switching erratically from leisure to work and back⁷.

⁴ Participant 22.

⁵ Participants 8, 32, 36, 44, 45 and 46.

⁶ Participants 1, 4, 11, 17, 19, 20, 23, 24, 26, 27, 31 and 48 (as listed in footnote 3 above who would work at any rate of pay; participant 2 would always work except on one of the 15 work tasks; participants 5, 10 (either the highest reservation wage or would always take the leisure option); participant 6 (always a reservation wage of 2); participant 12 (always a reservation wage of 2); participant 16 (reservation wage of 2 on 14 of the 15 work tasks); participant 18 (always a reservation wage of 3); participant 22 (who would never work at any rate of pay); participant 29 (always a reservation wage of 5).

⁷ Participants 8, 32, 36, 44, 45 and 46.

Figure 1 shows the reservation wages of the non-excluded participants graphed against the work task block for the different work task frames. There is clear evidence of a general upward movement in reservation wages as we move from block 1 through to block 5. Figure 2 shows the reservation wages of the non-excluded participants graphed against the work task frame for the different work task blocks. There is clear evidence of a general downward movement in reservation wages as we move from frame a to frame c. These results are confirmed by the more formal analysis in the section below.

8. Some more formal analysis

Given the fact that this was a pilot experiment with relatively few participants, there is a limit to the formal analysis that can be carried out. This is particularly so if we exclude the 19 participants referred to in the section above and identified footnotes 3, 4 and 5. Excluding them leaves us with just 29 ‘useable’ participants. The obvious thing to investigate is the relationship between the inferred reservation wages and the various work tasks and their framing. To this end, we introduce dummy variables $wtb1$, $wtb2$, $wtb3$, $wtb4$, $wtb5$, $wtf1$, $wtf2$ and $wtf3$. The *work task block dummy* variables $wtbi$ are defined to be 1 in work task block i and zero elsewhere (here i takes the values 1, 2, 3, 4 and 5). The *work task frame* dummy variables $wtfi$ are defined to be 1 in work task frame i and zero elsewhere (here i takes the values a, b and c). Regressing rw on these variables gives us:

$$rw = 3.7 + .05wtb2 + .16wtb3 + .24wtb4 + .55wtb5 - .48wtf2 - .52wtf3 \quad (1)$$

(14.0) (.14) (.50) (.75) (1.72) (1.94) (2.08)

Here the numbers in parentheses beneath the coefficients are the absolute values of their respective standard errors. It will be seen that the coefficients on two work task frame dummies are on the edge of significance⁸. What is particularly interesting is the signs of the coefficients. As we go through the work task blocks the coefficients rise – indicating an increase in the reservation wages. Hence it follows that higher risk (both objective and subjective) leads to participants being less willing to work.

As we go through the work task frames, the reservation wage falls: so participants are more willing to work when the frame is the rate of pay is expressed as a rate of pay for the two hours (rather than the rate of pay per minute) and slightly more willing to work when the rate of pay is expressed as a percentage increase over the participation fee. So the frame is important – and on the edge of significance. If similar results are found in a full experiment, the effect of the frame should become clearly significant.

Given the small number of useable participants it is clear that we are not going to get much out of an analysis of the demographic variables (those obtained from the questionnaire) but one result is interesting. If we form a risk aversion measure from the 8 questions which elicited an attitude towards risk), and include that in the equation we get:

$$rw = 6.5 + .05wtb2 + .16wtb3 + .24wtb4 + .55wtb5 - .48wtf2 - .52wtf3 - 4.55rac \quad (2)$$

(12.4) (.15) (.52) (.78) (1.79) (2.02) (2.17) (6.05)

Thus the more risk-averse participants require lower reservation wages and are thus more willing to work. Future analysis with more data could usefully include interaction terms.

⁸ It should be remembered that there are very few observations so the lack of significance should not be surprising.

9. Some conclusions and recommendations

The statistical results are promising but are based on very few observations. It should, of course, be remembered that the main purpose of carrying out this pilot experiment was not to get significant statistical results but to see if the experiment showed promise and could be extended to a full scale experiment – possibly with some 250 or more participants. This concluding section therefore comments on the success of the experiment from this point of view.

Our assessment is that the experiment shows promise but contains some defects which may or may not be able to be remedied. On the plus side, it is clear that the experiment was well designed, given its scope, and very few participants reported difficulty with understanding what they were meant to do. Some participants showed some initial confusion and we would recommend that further attention be paid to the briefing of the participants and ensuring that they fully understood the implications of their decisions. To this end, we would suggest:

1. A period of practice carrying out one of the work tasks to see what it implies.
2. An example of the procedure for choosing one of the work task screens and the question on that screen.

More worrying is the problems that we noted in section 7 above, primarily the fact that many of the participants said that they would work at any rate of pay, including zero. Of the three reasons given in that section (as reported by the participants themselves) the first (that they were not interested in watching any video) is the easiest to deal with:

3. We have to offer a bigger range of leisure activities

One suggestion was the provision of games on the computer. The second reason for always choosing the work task option (that they felt morally obliged to work) is more difficult to deal with, and we invite suggestions, but perhaps the solution is:

4. To make clearer in the Instructions the pointlessness of the work tasks and the simple fact that the participants need not work to qualify for the participation fee – that that is given simply to compensate them for attending the experiment.

The final reason (that the experiment was perceived as some kind of test by the DWP) could be dealt with by:

5. Better briefing during the recruitment phase⁹.

The obvious way to deal with the one participant who would never work is to simply increase the rates of pay offered – though this would make the experiment more expensive. Our feeling is that the rates of pay offered seemed to achieve the desired objective. Finally those participants who obviously experienced confusion would probably not do so if we introduced the two measures listed above.

Taking all these points into consideration our recommendation is to proceed to a main experiment, with the various modifications suggested above.

⁹ The briefing document used by the recruiters can be found in Appendix 3.

Reference

Holt, Charles A., and Laury, Susan K., "Risk Aversion and Incentive Effects," *American Economic Review*, 92(5), December 2002, 1644-1655.

Table 1: The various rates of pay in the work tasks

Work task block 1: certainty.

Work task frame a (pence per minute): 0.0p, 3.0p, 6.0p, 9.0p, 12.0p, 15.0p, 18.0p

Work task frame b (£ for the two hours): £0.00, £3.60, £7.20, £10.80, £14.40, £18.00, £21.60

Work task frame c (% over the participation fee): 0.0%, 14.4%, 28.8%, 43.2%, 57.6%, 72.0%, 86.4%

Work task block 2: pay depending on how many numbers entered correctly (the low rate if less than 500 and the high rate if more than 500) participants told at all times how many numbers they had entered correctly.

Work task frame a (pence per minute): 0.0p or 0.0p, 3.0p or 4.0p, 6.0p or 8.0p, 9.0p or 12.0p, 12.0p or 16.0p, 15.0p or 20.0p, 18.0p or 24.0p

Work task frame b (£ for the two hours): £0.00 or £0.00, £3.60 or £4.80, £7.20 or £9.60, £10.80 or £14.40, £14.40 or £19.20, £18.00 or £24.00, £21.60 or £28.80

Work task frame c (% over the participation fee): 0.0% or 0.0%, 14.4% or 19.2%, 28.8% or 38.4%, 43.2% or 57.6%, 57.6% or 76.8%, 72.0% or 96.0%, 86.4% or 115.2%

Work task block 3: pay depending on how many numbers entered correctly (the low rate if less than 500 and the high rate if more than 500) participants not told until the end how many numbers entered correctly.

Work task frame a (pence per minute): 0.0p or 0.0p, 3.0p or 4.0p, 6.0p or 8.0p, 9.0p or 12.0p, 12.0p or 16.0p, 15.0p or 20.0p, 18.0p or 24.0p

Work task frame b (£ for the two hours): £0.00 or £0.00, £3.60 or £4.80, £7.20 or £9.60, £10.80 or £14.40, £14.40 or £19.20, £18.00 or £24.00, £21.60 or £28.80

Work task frame c % over the participation fee): 0.0% or 0.0%, 14.4% or 19.2%, 28.8% or 38.4%, 43.2% or 57.6%, 57.6% or 76.8%, 72.0% or 96.0%, 86.4% or 115.2%

Work task block 4: pay depending on the toss of a coin at the end of the work task.

Work task frame a (pence per minute): 0.0p or 0.0p, 3.0p or 4.0p, 6.0p or 8.0p, 9.0p or 12.0p, 12.0p or 16.0p, 15.0p or 20.0p, 18.0p or 24.0p

Work task frame b (£ for the two hours): £0.00 or £0.00, £3.60 or £4.80, £7.20 or £9.60, £10.80 or £14.40, £14.40 or £19.20, £18.00 or £24.00, £21.60 or £28.80

Work task frame c (% over the participation fee): 0.0% or 0.0%, 14.4% or 19.2%, 28.8% or 38.4%, 43.2% or 57.6%, 57.6% or 76.8%, 72.0% or 96.0%, 86.4% or 115.2%

Work task block 5: pay (for both the leisure task and the work task) depending on the toss of a coin at the end of the work task.

Work task frame a (pence per minute): leisure 0p or 8p; work 0.0p or 0.0p, 3.0p or 4.0p, 6.0p or 8.0p, 9.0p or 12.0p, 12.0p or 16.0p, 15.0p or 20.0p, 18.0p or 24.0p

Work task frame b (£ for the two hours): leisure £0 or £9.60; work £0.00 or £0.00, £3.60 or £4.80, £7.20 or £9.60, £10.80 or £14.40, £14.40 or £19.20, £18.00 or £24.00, £21.60 or £28.80

Work task frame c (% over the participation fee): leisure 0.0% or 38.4%; work 0.0% or 0.0%, 14.4% or 19.2%, 28.8% or 38.4%, 43.2% or 57.6%, 57.6% or 76.8%, 72.0% or 96.0%, 86.4% or 115.2%

Figure 1: Reservation wages graphed against work task block for the different work task frames

Figure 1.1: frame a

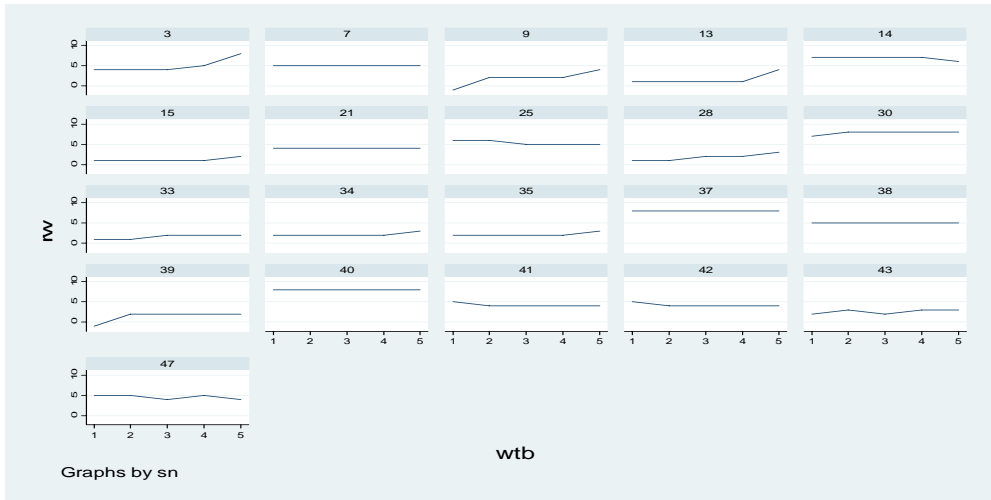


Figure 1.2: frame b

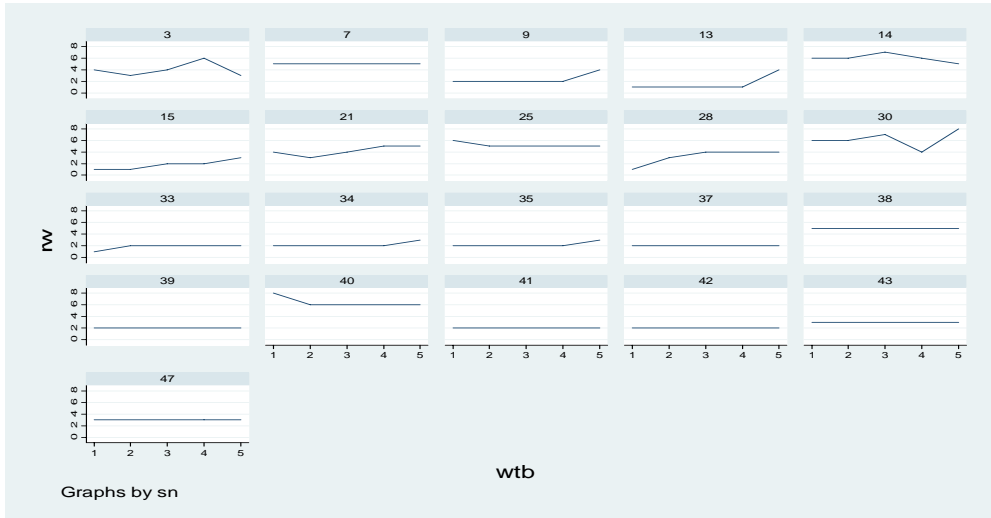


Figure 1.3: frame c

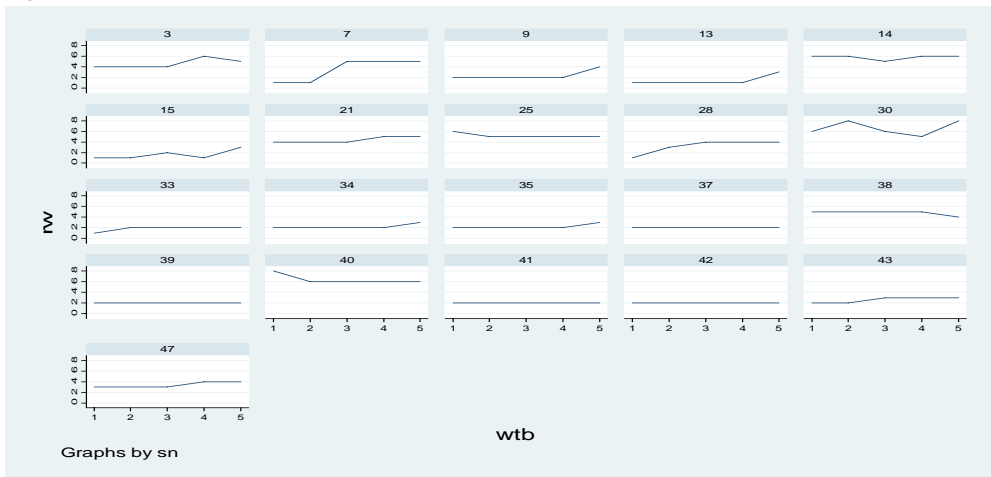


Figure 2: Reservation wages graphed against the work task frame for the different work task blocks

Figure 2.1: block 1

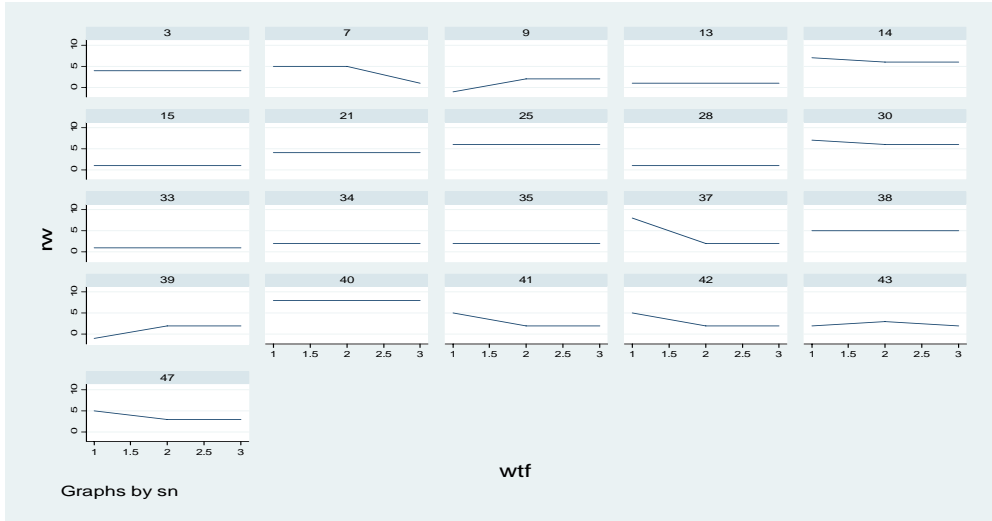


Figure 2.2: block 2

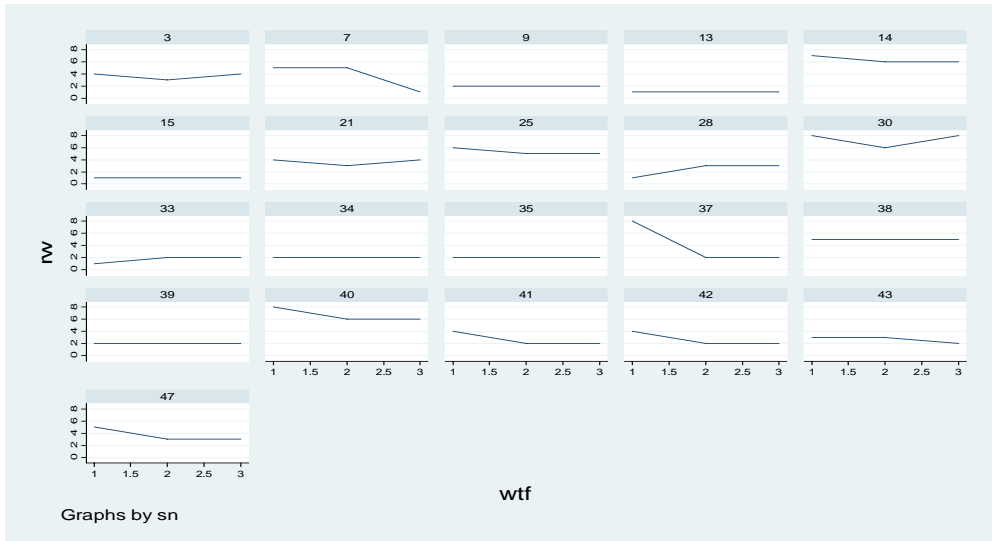


Figure 2.3: block 3

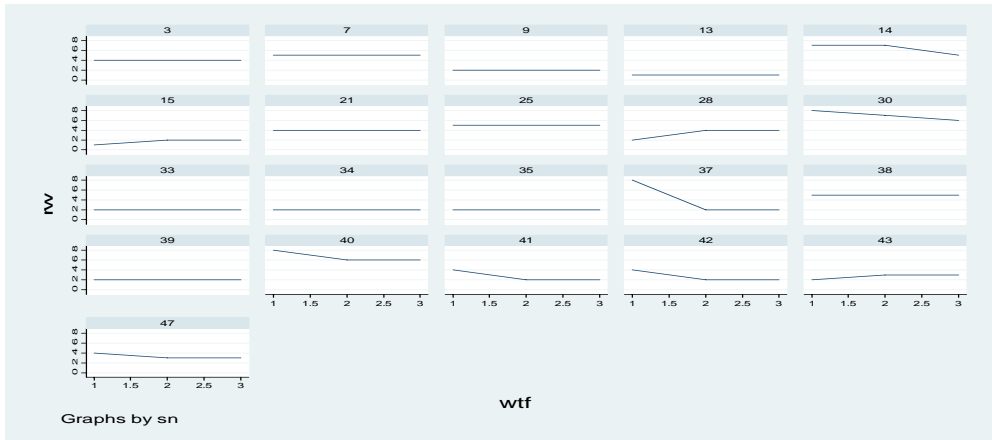


Figure 2.4: block 4

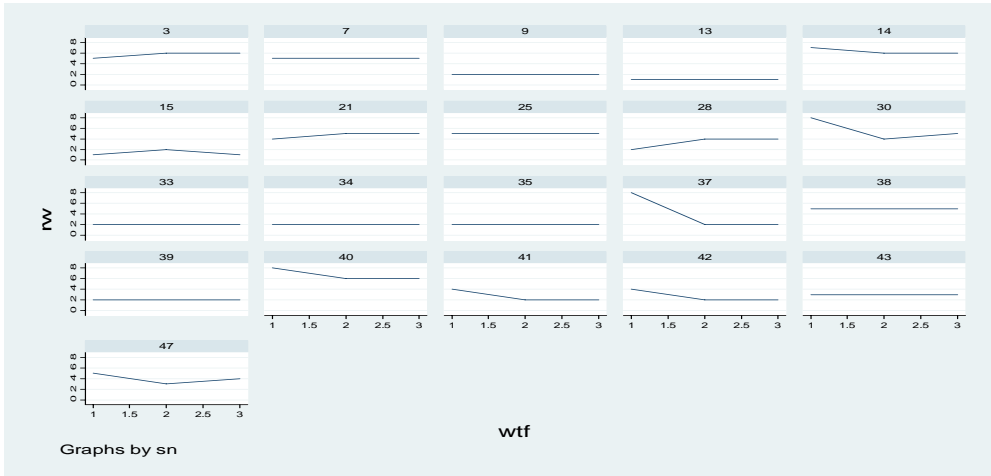
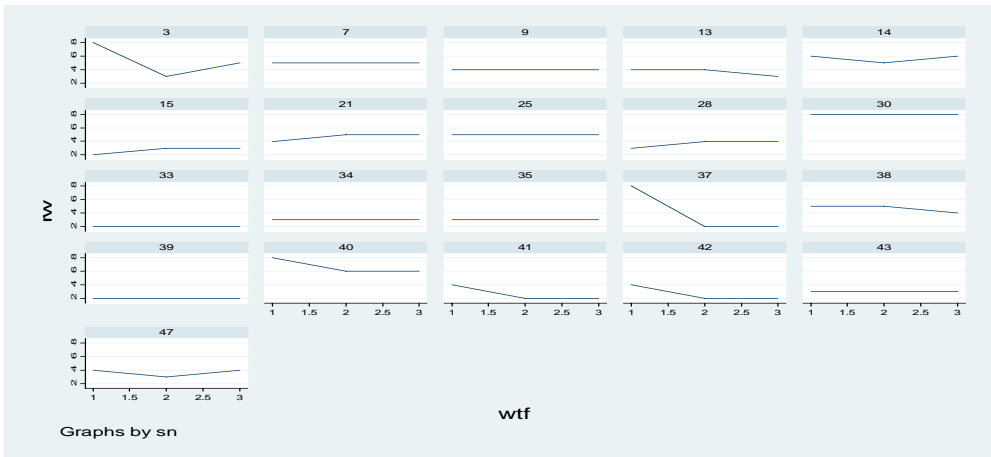


Figure 2.5: block 5



Appendix 1: The Written Instructions used in the pilot experiment

EXEC

Centre for Experimental Economics at the University of York

Welcome to this experiment. The Department for Work and Pensions (DWP) of the UK Government has provided the funds to finance this research. It is timetabled to last up to three hours. We will pay you a participation fee of £25, and you may earn more as a result of your decisions during the experiment. When you have completed the experiment you will be paid the participation fee of £25 and any extra that have earned in cash.

The experiment in outline

The experiment is in three parts. *Part 1* asks you a series of questions regarding your preferences between watching a video and performing some Work Task. *Part 2* asks you a series of questions about you: your sex, age and so on. *Part 3* will involve you either (a) watching a video of your choice or (b) completing some Work Task for which you will be paid (over and above the participation fee of £25). Whether you watch the video or complete the Work Task depends upon your answers to Part 1 of the experiment and on chance, as we shall explain shortly.

Part 1

You will be presented with a series of questions each of which ask you to express your preference over two options – Option A and Option B. Option A will always be to watch a video of your choice (from the list of videos that you will find at the end of these Instructions). If the video lasts for less than two hours, you will be asked to wait until the two hours is up, after the video is finished, before you are paid and can leave. Option B will be to carry out some Work Task for which you will be paid. There are fifteen different Work Tasks, which we will describe at the end of these Instructions. Each Work Task takes two hours to complete. So whether you watch a video or perform a Work Task, it will be two hours before you are paid and can leave.

These questions will be presented in fifteen different screens, one for each Work Task. In each screen you will be presented with a set of seven questions asking whether you prefer Option A or Option B. While Option A (watching a video of your choice) will always remain the same, Option B (completing a Work Task) will differ from question to question in that the rate of pay for that Work Task will differ from question to question. An example is shown in the screen shot from the experiment that you will find at the end of these Instructions.

In this example, and indeed in all those in the experiment itself, there are seven different questions, which differ in the rate of pay for the Work Task. What you are asked to do is indicate your preference in each case, by clicking on the appropriate button for that option. When you have responded to all the questions on the screen, click on the ‘Confirm’ button.

Part 2

This simply involves you responding to a questionnaire asking you various questions about yourself. The replies that you give will be used in such a way as to preserve your anonymity.

Part 3

When you have completed Part 2 you should call over an experimenter. In front of him or her you will select at random one of the seven questions on one of the fifteen different screens. The computer will then check your answer to that question on that Work Task and hence see whether you said that you preferred Option A (watching a video of your choice) or Option B (doing that Work Task at a particular rate of pay). (Note that in some of the Work Tasks there are two possible rates of pay – the one that you get depends on the toss of a coin – as we shall explain later.) What happens next depends upon what your expressed preference was: if it was for Option A you will then watch the video of your choice (if the video lasts for less than two hours you will have to wait until two hours are up before you are free to go); if it was for Option B you will then carry out that Work Task at that particular rate of pay. In the former case, after watching the video (and after the two hours are up), we will pay you your £25 participation fee, you will sign a receipt and then you will be free to go. In the latter case, after completing the Work Task, we will pay you your earnings plus your £25 participation fee, you will sign a receipt and then you will be free to go. If, any stage during Part 3, you want to take a break, then you will be free to do so and we will either pause the video or stop the clock on the Work Task.

How the random selection of a question will be carried out

This will be done as follows. First the experimenter will show you fifteen cards, each showing on one side the number of a Work Task; you will shuffle the cards and draw one at random (with the numbers face down); the number on the card drawn will determine the Work Task screen. Then the experimenter will show you seven cards, each showing on one side a number between 1 and 7; you will shuffle the cards and draw one at random (with the numbers face down); the number on the card drawn will determine the question on that Work Task screen.

Do note that in Part 3 you will not be allowed to change the preference that you expressed during Part 1 – hence in Part 1 it is crucial that you do express your true preferences in all cases.

PLEASE NOTE THAT YOU GET THE PARTICIPATION FEE *IN ADDITION* TO ANY EXTRA PAYMENT YOU MAY EARN IRRESPECTIVE OF THE WORK TASK.

HOWEVER, DO NOTE THAT YOU DO NOT QUALIFY FOR THE PARTICIPATION FEE OF £25 UNLESS AND UNTIL YOU HAVE COMPLETED PART 3 OF THIS EXPERIMENT.

If you have any questions before you start, or indeed during the experiment, please ask one of the experimenters.

John Hey
On behalf of the DWP
April 2007

The videos

An Inconvenient Truth
A Scanner Darkly
The Sentinel
The Breakup
The Devil Wears Prada
Little Miss Sunshine
March of the Penguins
Thank you for Smoking
Volver
Children of Men
The Queen
United 93
The Holiday
Layer Cake
Night At The Museum
The History Boys
Snakes on a Plane
Pan's Labyrinth
Night Listener

The Work Tasks

For all Work Tasks, you will be asked to input nine-digit numbers which appear on the computer screen into a box on the screen. You will be asked to do this for two hours. You must enter at least 250 numbers correctly in the two hours, or you will not get paid.

Work Task 1a

You will be paid a rate of pay per minute. You will be told at all times how many numbers you have entered correctly so far.

Work Task 1b

You will be paid a total amount for the work. You will be told at all times how many numbers you have entered correctly so far.

Work Task 1c

You will be paid a percentage over and above the participation fee of £25. You will be told at all times how many numbers you have entered correctly so far.

Work Task 2a

You will be paid a rate of pay per minute. You will receive the first specified rate of pay per minute if you enter between 250 and 500 numbers correctly in the two hours and you will receive the second specified rate of pay per minute if you enter at least 500 numbers correctly. You will be told at all times how many numbers you have entered correctly so far.

Work Task 2b

You will be paid a total amount for the work. You will receive the first specified amount of money if you enter between 250 and 500 numbers correctly in the two hours and you will receive the second specified amount of money if you enter at least 500 numbers correctly. You will be told at all times how many numbers you have entered correctly so far.

Work Task 2c

You will be paid a percentage over and above the participation fee of £25. You will receive the first specified percentage if you enter between 250 and 500 numbers correctly in the two hours and you will receive the second specified percentage if you enter at least 500 numbers correctly. You will be told at all times how many numbers you have entered correctly so far.

Work Task 3a

You will be paid a rate of pay per minute. You will receive the first specified rate of pay per minute if you enter between 250 and 500 numbers correctly in the two hours and you will receive the second specified rate of pay per minute if you enter at least 500 numbers correctly. You will not be told until the two hours are up how many numbers you have entered correctly.

Work Task 3b

You will be paid a total amount for the work. You will receive the first specified amount of money if you enter between 250 and 500 numbers correctly in the two hours and you will receive the second specified amount of money if you enter at least 500 numbers correctly. You will not be told until the two hours are up how many numbers you have entered correctly.

Work Task 3c

You will be paid a percentage over and above the participation fee of £25. You will receive the first specified percentage if you enter between 250 and 500 numbers correctly in the two hours and you will receive the second specified percentage if you enter at least 500 numbers correctly. You will not be told until the two hours are up how many numbers you have entered correctly.

Work Task 4a

You will be paid a rate of pay per minute. You will be told at all times how many numbers you have entered correctly. Which rate of pay per minute you get will be determined by the toss of a coin when the two hours is up.

Work Task 4b

You will be paid a total amount for the work. You will be told at all times how many numbers you have entered correctly. Which amount of money you get will be determined by the toss of a coin when the two hours is up.

Work Task 4c

You will be paid a percentage over and above the participation fee of £25. You will be told at all times how many numbers you have entered correctly. Which percentage you get will be determined by the toss of a coin when the two hours is up.

Work Task 5a

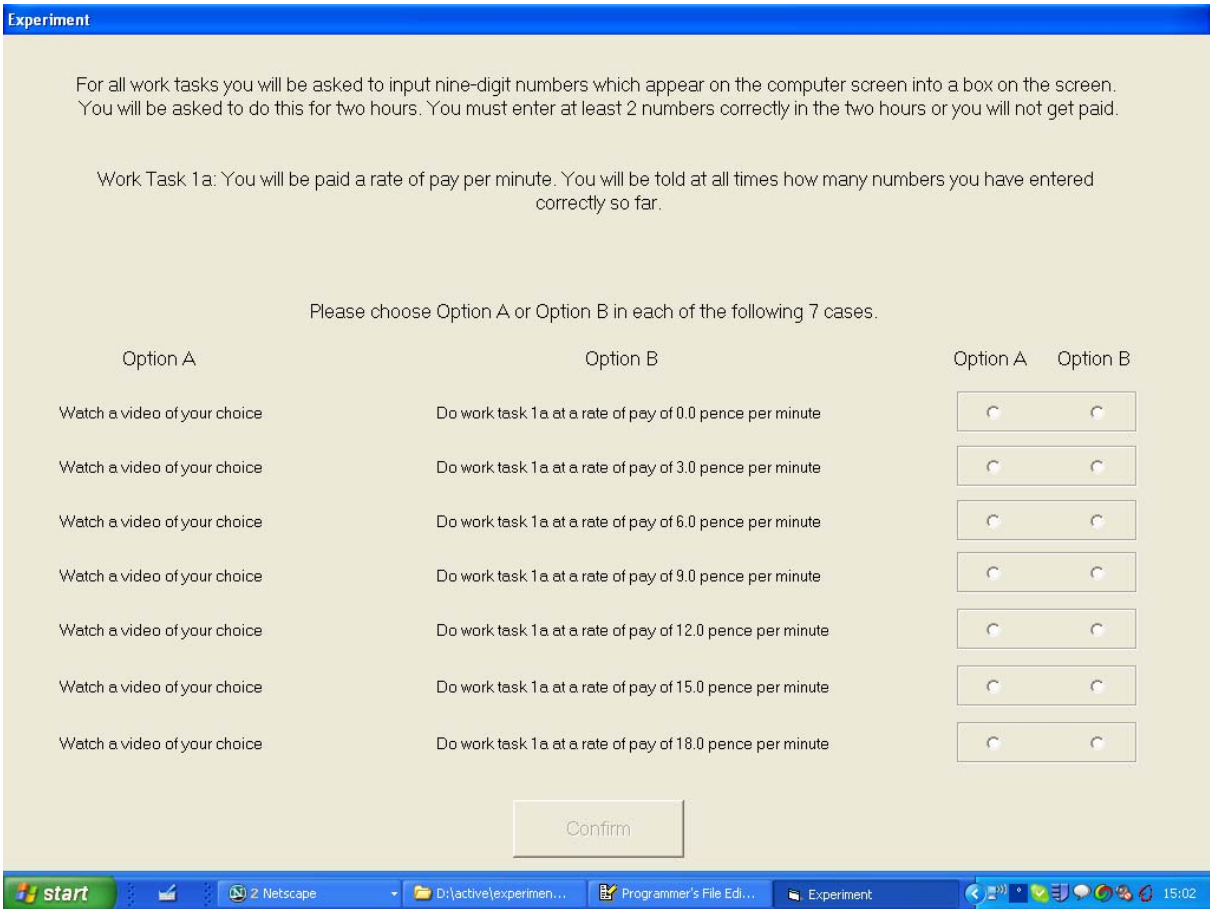
If you choose Option A, you will receive one of the specified rates of pay per minute. If you choose option B, you will be paid a rate of pay per minute. For each option, which rate of pay per minute you get will be determined by the toss of a coin when the two hours is up. You will be told at all times how many numbers you have entered correctly.

Work Task 5b

If you choose Option A, you will receive one of the specified amounts of money. If you choose option B, you will be paid a total amount for the work. For each option, which amount of money you get will be determined by the toss of a coin when the two hours is up. You will be told at all times how many numbers you have entered correctly.

Work Task 5c

If you choose Option A, you will receive one of the specified percentages over and above the participation fee of £25. If you choose option B, you will be paid one of the specified percentages over and above the participation fee of £25. For each option, which percentage extra you get will be determined by the toss of a coin when the two hours is up. You will be told at all times how many numbers you have entered correctly.



EXEC

The Centre for Experimental Economics at the University of York

This is to certify that I received a payment of £..... for my participation in this experiment. I participated voluntarily. I understand that the results of this experiment will be used anonymously for the purposes of academic and governmental research.

Number.....

Name.....

Signature.....

Date.....

Appendix 2: Script read to participants at beginning of experiment

EXEC

Centre for Experimental Economics at the University of York

Welcome to this experiment. Many thanks for coming. I am John Hey. I work at the University of York and am carrying out this experiment on behalf of the Department for Work and Pensions, who are financing it. As you have already been told, it is timetabled to last a maximum of three hours.

In front of you, you will find some written Instructions, and I would ask you to read these carefully after I have finished summarising them. If you would like any explanation at any stage, do call one of us over.

As the Instructions say, there are three parts to the experiment. *Part 1* asks you a series of questions regarding your preferences between watching a video and performing some Work Task. *Part 2* asks you a series of questions about you: your sex, age and so on. *Part 3* will involve you either (a) watching a video of your choice or (b) completing some Work Task for which you will be paid (over and above the participation fee of £25). Whether you watch the video or complete the Work Task depends upon your answers to Part 1 of the experiment and on chance.

Let me now describe Part 1. In this Part, you will be presented with a sequence of 15 screens, all in the format which I am now displaying on the big screens at the front of the room. Each of the 15 screens relate to a specific Work Task, which is described at the top of the screen. Below the description are seven questions, each asking you to choose between watching a video of your choice or doing the Work Task. The questions are distinguished one from the other by the rates of pay attached to the Work Task. All you have to do is to indicate whether you would prefer to watch a video or do the Work Task at the specified rate of pay. Thus, for example, in the first question on this screen, if, at a rate of pay of 0 pence per minute, you would prefer to watch a video you should click on Option A at the right; if, at a rate of pay of 0 pence per minute, you would prefer to carry out the Work Task, you should click on Option B – as I am now showing you. When you have expressed your preference on all 7 questions for any Work Task, you should click on the ‘Confirm’ button at the bottom of the screen. You will then move on to the next Work Task screen. The Work Tasks are described in the Instructions and on the computer screens.

It is important that you answer each question carefully and honestly, because in Part 3, one of the 15 Work Task screens will be selected at random, and one of the seven questions on that screen will be selected at random, and we will ask you to do whatever you said that you preferred to do at that rate of pay. If on the randomly selected question of the randomly selected Work Task screen you said that you preferred to watch a video of your choice, then you will watch a video of your choice (from the list that you will find in the Instructions); if you said that you preferred to carry out the Work Task at that rate of pay then you will carry out that Work Task and be paid accordingly. Do note that, whether you watch a video or carry out a Work Task you will be required to stay here for two hours after the start of the video or the Work Task.

Each of you will be paid the participation fee of £25; those who complete a Work Task successfully will be paid an extra amount over and above the participation fee. Are there any questions at this stage?

Please now read the written Instructions and call one of us over when you have finished.

Appendix 3

7/180 REQUIRED APPROACH TO POTENTIAL PARTICIPANTS IN DWP RESEARCH

Good a.m./p.m./eve. My name is and I am calling from ECOTEC Survey about research for the Department of Work and Pensions.

I believe you have received a letter recently explaining this research is so I am now calling to see if you are able to take part.

[IF RESPONDENT HAS NOT RECEIVED THE LETTER SAY "COULD I TELL YOU BRIEFLY WHAT IT SAID" AND READ OUT THE FOLLOWING:

"The Department for Work and Pensions wants to improve its services and commissioned ECOTEC Research & Consulting Ltd and the University of York to carry out research with people who claim benefits. The research will explore how you view the financial gains of work, and how your decision to work may change depending on the gains to work.

Your name was randomly selected from the Department's records of people who are claiming Income Support or Jobseeker's Allowance. We may like to invite you to a research event to be held at the University of York on April 25th or 26th. This research will take about three hours in total and will involve you sitting at an individual computer screen and inputting your decisions into the computer. Full instructions will be given when you arrive. There will be 10 – 20 people taking part at any one time.

If you do take part in the research, we would like to offer you £25 as a 'thank-you' gift for your help. You may also receive a further payment, depending on your responses during the research. We will also pay any reasonable care expenses incurred while participating in the research. These payments will not affect your entitlement to benefits in any way.

We would like to emphasise that ECOTEC and the University of York are completely independent of government departments and political parties. Any information you give will be treated in the strictest of confidence and the results will be presented in such a way that no-one will be able to identify you or your family."

NB: YOU CAN USE ANY OF THE ABOVE TEXT TO ANSWER QUERIES FROM ANY OF THOSE YOU CONTACT OR TO REFRESH THEIR MEMORIES ON THE LETTER.

Would you be prepared to take part, please?

[IF YES] Thank you very much that is very good of you.

[IF NO] Do you have any queries I could answer to encourage you to take part?

THOSE WHO AGREE TO TAKE PART

Which day would be better for you, Wednesday 25th April or Thursday 26th April?

And which time would be best,

Wednesday 2 p.m. or 6 p.m.

Thursday 10 a.m. or 2 p.m

Thank you, could I just check your details?

ENTER ALL DETAILS NOW ON QUESTIONNAIRE

Check: Name
Address as same on database provided

ENTER THEIR ID NUMBER ONTO QUESTIONNAIRE

Record Gender

Which benefit do you receive – income support or job seekers allowance?

And are you, a single parent/couple with children at home/couple without children at home/a single person?

Could I now ask whether you are a home owner (or buying with a mortgage) or whether you rent a property?

[IF RENTING] Do you rent from the council/housing association or from a private landlord?

Record date and time chosen to attend

Thank you, we will now send you a letter confirming the date and time, and giving you directions to the venue. Just to remind you, you will receive at least £25 for attending and you may receive an additional payment, depending on your responses during the research. I know that it did say £20 on the letter but that has increased to £25.

[If the respondent asks, confirm that we can pay reasonable care expenses, such as babysitting fees, too].

I will give you a quick call the night before also, just to remind you.

Do you have any other queries? [If yes answer using the text above or using the copy of the original letter. If you can not answer, ask if you can get a colleague to call and notify the office]

THANK RESPONDENT AND CLOSE.

Appendix 4: The composition of the recruited sample

(To be provided by Ecotec.)