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DONATIONS

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ABSTRACT

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This Paper is an empirical study of the motives for charitable donations, based on a unique dataset of the English National Opera. Merging all their box office and fundraising data, our dataset not only contains individuals' donations, but also their opera attendance and all the fringe benefits they consume (e.g. dress rehearsals). We can, therefore, study the three main reasons suggested in the literature to explain charitable giving. We find that individuals donate to fund a public good – here, new productions – to have access to a private good – here, fringe benefits – and by altruism. The results are important to learn the extent to which we can model charitable donations in a model with a self-interested utility maximizing agent in a strategic environment and to enhance our understanding of the crowding-out effect of public spending on charities and the arts.

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1 Introduction

This paper is an empirical study of the motives for charitable donations, based on a unique dataset of a UK registered art charity, the English National Opera (ENO). Donations to the arts or cultural institutions give an excellent opportunity to compare the alternative motives of charitable donations because they are compatible not only with altruistic motives, but they can also be associated with the consumption of private goods.

Charitable giving counts for a large proportion of personal income. In the U.S. the total itemized individual giving totaled $123Mll in 1999, about 2.1% of income.[1] Andreoni (2001) reports that the most significant source of giving is private individuals and that, although donations increase with income, donations do not come only from rich households, but from the majority of households. Does this scale of giving contradict the main paradigm that individuals are self-interested? How can we justify the large incidence of donations and the fact that so many organizations rely on them? The economics literature has offered three different reasons for charitable contributions. First, donations are a form of *altruism*, in the sense that individuals care about other people's utility, or *warm-glow*, individuals simply get satisfaction from donating money to worthy causes (see Andreoni, 1989). Second, donations can be the price individuals are willing to pay for a *private good* or service. For instance, donors may gain access to special events, gala dinners and other fringe benefits. Similarly, donations can also improve the donors social status, for example by having their name appearing on a donors' list.[2] Finally, donations are also a way to finance a *public good*. Individuals who are interested in consuming the good or service that requires external funding may donate to ensure that it is produced (or its quality increased). In the arts, the public good component arises when there are fixed costs that have to be covered for their production (or its quality increased). When an individual donates, he helps cover the fixed costs and, in this way, makes it more likely that the good will be produced (see Hansmann, 1980, Cornelli, 1996 and Andreoni, 1999). Since donations to finance a public good also help the non-donors enjoy the consumption of the same good, individuals have an incentive to "free-ride" and rely on other individuals' donations. Free-riding in the financing of a public good has motivated a vast theoretical literature on private contributions to a public good. This literature shows that if individuals feel that their contribution is necessary for the good itself to be produced, they may free-ride only partially (see, for example, Andreoni, 1988).

[1] Based on individual income tax returns, National Center for Charitable Statistics.

[2] See Harbaugh (1998a and 1998b).

Some of the evidence on donations is based on experimental evidence.[3] Empirical studies of donations have typically focused on whether government grants to charities crowd out private contributions.[4] The results suggest that individuals' decision to donate is consistent with the predictions of a utility maximization framework in a strategic environment. However, most of these studies use data on *aggregate* donations at the national level and thus cannot yield further insights on individual preferences. The papers closest to ours, Kingma (1995) and Strauß (2001), use data on household donations to public radio. However, because of the nature of the public good they study, they cannot directly measure its consumption, which is free and unverifiable. The contribution of our paper is to test the different motives for donating by examining contemporaneously donations and consumption at the individual level.

We first develop a simple model in which utility maximizing individuals choose how many and which operas to attend and the amount to donate, under a budget constraint. Potential donors take decisions knowing both the impact of their donations on the fringe benefits that they would be able to obtain and on the production decision of the charity. Donations beyond these two motives are interpreted as motivated by altruism. The model generates a set of jointly consistent testable restrictions that are used to explore and interpret the empirical regularities in the data.

We take advantage of a unique dataset of the ENO, an opera house which is a UK registered charity. The dataset has been created by merging their box office with the data from their fundraising department. The ENO assigns a code to each customer (more precisely, household) that is also used to keep track of donations. In total, we have accounts for 36,098 donors and 284,451 non-donors. For each of these accounts, we can observe each ticket purchase — the information includes the seat price, the number of tickets purchased, the opera attended and details about the individual household–, the amount donated and all the fringe benefits actually consumed–such as attendance to dress rehearsals, special performances, talks, social events with the performers and gala dinners. The ENO has several productions in repertory, where all sets, costumes and stage designs have already been paid for and stored for future use. Nonetheless, the ENO invest an important part of its budget in developing new productions which entail large additional fixed costs. The ENO, like other arts organizations, will not need to stop offering performances of repertory

[3] See Harbaugh and Krause (1999), Andreoni and Petrie (2001) and List and Lucking-Reiley (2002).

[4] See, for example, Weisbrod and Dominguez (1986), Posnett and Sandler (1989), and Khanna and Sandler (2000), Ribar and Wilhelm (2002).

productions if in one year donations are lower. However, since new opera productions require large additional fixed costs the theater may decide not to stage new productions unless enough money is collected. This is important in order to be able to test the public good motive. [5] The link between donations and the staging of new productions is made explicit by the ENO in their letters soliciting donations, see Figures 1 and 2. They mention explicitly the intention to use the money raised to stage new productions.[6] Moreover, at times new productions are officially sponsored by the "Friends of the ENO". From the dataset, we can observe which operas a customer is choosing, and therefore whether he is attending new or regular productions.

The advantage of our data set is thus twofold. First of all, we can observe both consumption and donation. As a result, we can use the information on the joint consumption/donation decision to distinguish among the private good motive (donating to get access to fringe benefits), the public good motive (donating to finance the fixed costs required to stage new productions) and altruism. Second, our study does not suffer from the usual problem that typically one can observe only the behavior of those individuals who donate. We observe all individuals with an interest in the ENO performances and we can distinguish among those who choose to donate and those who don't.

Our main empirical findings are as follows. First, we find that the public good motive is an important component of donations: donors show a higher preference for new productions. If individuals were motivated purely by altruism, one would not expect this pattern.

Second, for individuals buying cheap seats the public good motive is less relevant than the private good one. Individuals buying expensive seats seem motivated by both, but the private good motive seem less important for them. This is consistent with the prediction of the model that donations reduce disposable income so that individuals with higher income (who are shown to buy more expensive seats in equilibrium) can enjoy more the new productions since they can attend them more frequently and from better quality (more expensive) seats.

Third, for individuals buying cheap tickets donations partially displace their own total ticket expenditure. This result is relevant to the literature on the crowding out effect.

[5] Staging new productions can also be interpreted as an investment in quality, since it is an opportunity for the opera house to use some of the "hottest" directors or costume designers and remain cutting-edge.

[6] The ENO has a reputation for staging modern operas that were never staged before. Frank and Wrigley (2001) look at both the Royal Opera and the ENO in London and their results suggest that these opera houses sacrifice net profits from ticket sales in order to produce newly-commissioned productions.

Andreoni and Payne (2001) argues that if public subsidies displace private donations, a theater will not benefit greatly from government's support. Our result suggests that, at least for this subset of individuals, the crowding out effect is mitigated by the substitution between donation and ticket expenditure, so that the theater may still benefit from public subsidies. We also find that individuals purchasing expensive tickets appear to suffer less from the tightening of the budget constraint and for these individuals the complementarity effect between donations and consumption is stronger than the substitution effect. This suggests that the "composition" of the donors' pool may be important to evaluate the effect of public funding. We find this substitution effect also intertemporally: individuals on average reduce how much they spend in tickets in the year in which they start donating and they increase it in the year in which they stop donating.

Fourth, we learn the characteristics of the individuals making charitable donations. This is important since in the literature on private provision of public goods, depending on the model used, donors have different characteristics. For example, with perfect information, Bagnoli and Lipman (1989) identify Nash equilibria in which people donate the exact amount for the good to be created. In such cases, any individual could be a donor, independently from how much he values the good, since he is pivotal for the public good to be offered. With imperfect information, Bliss and Nalebuff (1984) and Palfrey and Rosenthal (1984) use a Bayesian approach to characterize equilibria in which people who donate are the ones who value the good most. We find supporting evidence that for the public good motive donors are those who value the good most, i.e. those who have a higher preference for new productions.

Fifth, we find that the private good motive — such as donating to have its own name appearing on the donors' list — is less important for large donors. We explore this issue by studying donations that exceed the minimum required to be in a certain donation class. Any donation in excess to the minimum to be in that class cannot be explained by a self-interest reason. The results suggest that pure altruism is a stronger motive for large donors.

The paper proceeds as follows. Section 2 presents a model for the joint decision of individual attendance and donation and describes the empirical implications. Section 3 describes the data set and gives details about ENO. Section 4 describes some summary statistics. Section 5 documents the empirical results of the decision to become a donor and then of the amount to donate. Section 6 analyzes donations within a category of donors, and Section 7 identifies effects when an individual starts or stops donating. Section 8 concludes.

2 A Model of Individual Donations

This section develops a model of an individual's choice of how many performances to attend at the opera theater, how much to spend on tickets, and how much to donate.[7] We then derive several empirical implications which we test in the next sections.

Let us start by describing which choices the opera house offers a potential customer. Each year the opera house produces N performances, at an overall quality level q. These performances can be attended in two types of seats: low quality, low price seats or high quality, high price seats. Let us call p_1 the price of the low quality seats and p_2 the price of the high quality seats (so that $p_1 < p_2$). For simplicity, we assume that seat prices are exogenous.[8] Typically, an opera house does not have complete freedom when setting prices, since it competes with other entertainment establishments (such as theaters or concerts) and behaves very much as a price-taker.[9]

There are two types of productions: replicas of existing ones and new productions. Out of the N performances offered, S are new productions, where S is chosen by the opera house every year and each new production entails an additional fixed cost M. Finally, each year the opera house offers R special events, which are available only to donors. Special events are either dress rehearsals or cocktail parties, special recitals, gala dinners and similar events to which only donors have access: if an individual donates more than a minimum amount $\underline{d}$ he can attend these special events.[10]

Since it is a non-profit organization, the opera house maximizes welfare subject to a break-even constraint. Notice that N and R are exogenous. N is limited by the number of days in which the theater is available. The special events R are either dress rehearsals (and therefore their number is exogenously given by the number of performances N) or other events such as lunch meetings with singers, cocktail receptions, etcetera. It is likely that the choice is determined by exogenous circumstances, such as availability of singers or similar considerations. Moreover, special events are not very costly with respect to the staging of an opera, so the number of special events offered does not depend on the resources.

[7] For expositional reasons, the theater choices are simplified as much as possible, since our purpose is to test individual behavior.

[8] Allowing the opera house to choose also prices will make the analysis more complex, since the opera house could choose prices so as to affect donations, but will not change our basic conclusions.

[9] In particular, the English National Opera in London has to compete not only with theaters and concert houses, but also with the Royal Opera House at Covent Garden and the occasional touring opera companies.

[10] For example, at the English National Opera the minimum amount (25 pounds) is what is requested to become "Friends of the ENO." One can also donate less than 25 pounds, but in this case he will have no access to any special benefits.

We do not explicitly model the opera house maximization, but simply assume it chooses q and S as high as possible, compatibly with the break even constraint. As a result, everybody knows that q and S are an increasing function of the resources available.

Let us now model the preferences of an individual i, who can choose how often to attend performances at the opera, at what price and how much to donate.

We define n_1 as the number of performances attended in low quality, low price seats, and n_2 as the number of performances attended in high quality, high price seats, so that

$$n_1 + n_2 \leq N \tag{1}$$

Some people prefer to attend new productions, for example because they are more modern or because they have already seen all the repertory productions and want some novelty, while others do not have any special preference for new productions. We model the preference for new productions by introducing a variable ϕ which takes value $\phi > 0$ if i prefers new productions and 0 otherwise. In other words, ϕ is the additional marginal benefit from attending a new production rather than a regular production.

Clearly, all else equal, an individual who prefers new productions would always choose to attend as many new productions as possible and would purchase seats for regular shows only if he is attending more than S performances. However, this would ignore two important aspects. First, we are treating all performances as perfect substitutes, whether they are by Puccini or Wagner or a modern composer. Second, individuals have timing constraints and may not be free when a certain opera is offered. As a result, they do not attend only new performances even if they have a preference for them. To capture these aspects, we assume that an individual i attends a number of new productions $g(S)$, where this number increases with the number of new production offered, $g'(S) > 0$. In other words, as more new productions are offered, it is more likely that the individual will be able to choose a new production over a regular one.[11]

An individual can also choose whether to make a donation d_i and, if he donates an amount larger than $\underline{d}$, he can choose how many special events to attend: we define as r the number of special events he chooses to attend.[12]

[11] More generally, one may imagine that $g(S)$ is a step function, where the steps depend on the total attendance $n_1 + n_2$. For example, $g(S)$ is a low number if $n_1 + n_2$ is low, while it is higher if total attendance is higher. That would imply that the optimal attendance is different for individuals with $\phi > 0$. Although we do not model it explicitly, in Section 4.2.

[12] Many of the special events are dress rehearsals. This suggests that they may be substitutes for regular performances. We abstract from this issue. Also we assume that special events are free. Sometimes there is a price to pay, but it is usually so small to be irrelevant.

To summarize, the utility function of individual i is increasing and concave in consumption:

$$v_i q \left[\alpha n_1 - n_1^2 + \beta(\alpha n_2 - n_2^2) + \phi g(S)\right] + (\gamma_i R r - r^2) I\{d_i \geq \underline{d}\} \tag{2}$$

where $\beta > 1$ (so that an individual always derives a larger utility from a higher quality seat), v_i is a parameter which captures individual i's taste for opera and γ_i is the marginal utility from attending a special event. Since special events can be consumed only by individuals who donated more than $\underline{d}$, the consumption of these events is multiplied by I, the indicator function.[13] The way we model new productions implies that the additional utility ϕ from attending a new production rather than a regular one is not affected by the type of seats the individual buys (in principle, one individual could enjoy more the new production if he is in a high quality seat).

Each individual i has a budget constraint:

$$p_1 n_1 + p_2 n_2 \leq \bar{y}_i - d_i \tag{3}$$

where $\bar{y}_i$ is individual i's income.[14] We normalize $p_1 = 1$ and assume that $p_2 > \beta$.

The timing is as follows: at time $t = 0$ each individual chooses how much to donate to the opera. At time $t = 1$, after observing total donations, the opera house chooses the overall quality of productions q, and the number of new productions S. Finally, at time $t = 2$ each individual decides how much to attend and in what type of seat. If he has donated he can also choose how many special events to attend. Therefore, each individual chooses d_i anticipating what effect his donation will have on the choice of q and S and, further down, on his choice of attendance.

We now solve the model backwards. At $t = 2$ each individual i, having donated $d_i \geq 0$ and knowing q and S, chooses n_1, n_2 and r to maximize (2) subject to (1) and (3).

If constraint (3) is binding, we can substitute in the objective function

$$n_1 = (\bar{y}_i - d_i) - p_2 n_2. \tag{4}$$

The first order condition with respect to n_2 and r are

$$-\alpha p_2 - 2 n_2 p_2^2 + 2(\bar{y}_i - d_i) p_2 + \beta\alpha - 2\beta n_2 \geq 0 \tag{5}$$

$$R\gamma_i - 2r = 0 \tag{6}$$

[13] We introduced R in the utility function so that an individual never wants to attend more special events than the ones actually offered and the solution is always an interior solution. This is just for simplification and has no bearing on the results.

[14] More precisely, $\bar{y}_i$ should be the income available for entertainment expenditure. The fraction of income dedicated to entertainment expenditure should depend on individual preferences. For simplicity, we abstract from this aspect and assume it is a constant fraction of the income.

The number of special events attended by a donor is

$$r^* = \frac{\gamma_i R}{2}, \tag{7}$$

so that donors with a higher γ_i will attend more special events.

To determine n_1^* and n_2^* we distinguish two cases. Consider first the case

$$\bar{y}_i - d_i \leq \frac{\alpha(p_2 - \beta)}{2p_2}. \tag{8}$$

This case corresponds to individuals with low income $\bar{y}_i$ (or who donated a large part of their income). These individuals are budget-constrained and spend their budget on cheap seats:

$$n_1^* = \bar{y}_i - d_i \tag{9}$$

$$n_2^* = 0. \tag{10}$$

If (8) is not satisfied, then

$$n_2^* = \frac{2p_2(\bar{y}_i - d_i) - \alpha(p_2 - \beta)}{2(p_2^2 + \beta)} \tag{11}$$

and

$$n_1^* = \bar{y}_i - d_i - p_2 n_2^*. \tag{12}$$

Finally, if constraint (3) is not binding then:

$$n_1^* = n_2^* = \frac{\alpha}{2} \tag{13}$$

However, we will show later that this last case never arises in equilibrium (i.e. constraint (3) always binds).

Note that an individual's choice between high or low quality seats is determined only by their income (net of donations) and not by how much they value opera. Although in practice both characteristics may influence the choice, this feature seems consistent with the (casual) observation that opera lovers often buy cheap seats and people with high income buy expensive seats even if they go to the opera only once in their life.[15]

At $t = 1$, the opera house chooses q and S. As already mentioned, we do not model explicitly the opera house maximization, but just assume that it sets q and S as high as

[15] If the additional benefit from attending a new production were higher for high quality seat that would imply that individuals with $\phi > 0$ would buy more expensive seats.

possible compatibly with its budget constraint. Since a new production entails an additional fixed cost M and increasing the quality q is costly, the optimal S and q will be an increasing function of the total donations collected. The budget constraint is:

$$SM + C(q) = Rev + \sum_i d_i \tag{14}$$

where Rev are the revenues from the ticket sales from the year before and are given.[16] The opera knows how much it has collected through donations and, given the revenues from ticket sales, it chooses q and S so that it breaks even. If donations increase, in general, q and S increase.

Consider now the individuals' choice of donations at $t = 0$. Each individual i chooses d_i to maximize (2) with respect to d_i, subject to (3) and (14), with $n_1 = n_1^*$ and $n_2 = n_2^*$.

Since the last term in the utility function is multiplied by the indicator function, we proceed as follows. When taking the first order condition, we first ignore that last term. If the first order condition implies a donation larger or equal to $\underline{d}$, then we can indeed disregard the term. If instead it implies a donation smaller than $\underline{d}$ (or no donation at all) then we consider that additional term.

If we define $U(n_1, n_2) \equiv v_i q \left[\alpha n_1 - n_1^2 + \beta(\alpha n_2 - n_2^2) + \phi g(S)\right]$, then generically the first order condition with respect to d_i is given by:

$$\frac{\partial U}{\partial q}\frac{dq}{dd_i} + \frac{\partial U}{\partial n_1}\frac{dn_1^*}{dd_i} + \frac{\partial U}{\partial n_2}\frac{dn_2^*}{dd_i} + v_i q \phi g'(S)\frac{dS}{dd_i} \tag{15}$$

The first term captures the complementarity between donations and attendance: a frequent opera goer cares more about overall quality and is therefore more likely to donate to increase q. This term is always positive. The second term is the effect of d_i on the number of performances attended, n_1^*: if constraint (3) holds, the term is negative. The intuition is that for these individuals the budget constraint is always binding and an increase in the amount donated always reduces the expenditure on performances. This term therefore captures the substitution effect between donations and attendance. The third term is the effect on n_2^*: since this is always an interior solution, this term is always equal to zero by implicit function theorem.

The last term captures the fact that larger donations will allow the opera house to increase the number of new productions. This term is positive only if $\phi > 0$, i.e. if the

[16] We are ignoring the possibility that the opera house uses an intertemporal budget. This type of consideration will make the rules more complex but in general will not affect the basic result that S and q increase with donations.

individual prefers new productions. Note that by inserting this term in the first order condition we are automatically assuming that the individual feels pivotal. The theoretical literature has shown that there exist equilibria where people feel pivotal. We therefore show how the first order condition will look if an individual feels pivotal and then we use our dataset to see if people really feel pivotal.

From the first order condition we see that there are three different motives for donating: (1) to increase the overall level of quality q, (2) to increase the number of new productions, and (3) to consume fringe benefits.

To see whether these motives have different relevance for different people, one should take into account that the terms described above are different depending on n_1^* and n_2^*, where the choice of n_1^* and n_2^* depends on d_i (since a larger donation can reverse inequality (8) or saturate constraint (3)). By looking at (15) we can see that (3) is always binding. In fact, if it is not binding both n_1^* and n_2^* are interior solutions and by implicit function theorem there is no substitution effect. Thus the first order condition is always positive and the individual will increase d_i until constraint (3) is binding. Therefore, the budget constraint is always binding in equilibrium.

We are therefore left with individuals buying only cheap seats and those buying also expensive seats, but both with a binding constraint. In what follows we will derive some regularities which are true for all of them and also differences between the two types.

First, notice that both the first and last term increase with attendance, while the substitution effect decreases with attendance, since the utility is concave. Therefore, as attendance increases so does the expression in (15), which means that equation (15) is more likely to be positive and d^* is larger.

Hypothesis 1: *Attendance is positively related to the probability to become a donor and to the amount donated.*

Moreover, since we showed that the budget constraint is always binding:

Hypothesis 2: *There is a substitution effect between donations and consumption: the larger is the amount donated, for a given income, the smaller is the amount spent to attend.*

Also, it is easy to show that the first order condition (15) increases with y_i, therefore:

Hypothesis 3: *Income is positively related to the probability to become a donor and*

to the amount donated.

Let us now consider the second reason for donating. If $\phi > 0$, the first term in the first order condition is higher. Moreover, the expression includes the additional last term.

Hypothesis 4: *The probability to become a donor and the amount donated are positively correlated with the preference for new performances ϕ.*

The relevance of this motive is lower for individuals buying only low quality seats, since for those individuals the substitution effect is larger. In fact, for individuals buying only cheap seats $n_1^* = \bar{y}_i - d_i$, and $\frac{dn_1^*}{dd_i} = -1$, while for individuals who buy also expensive seats $\frac{dn_2^*}{dd_i} = -\frac{p_2}{p_2^2+\beta} < 0$, $\frac{dn_1^*}{dd_i} = -1 - p_2\frac{dn_2^*}{dd_i} = -1 + \frac{p_2^2}{p_2^2+\beta}$, which is less than -1. The intuition is the following: to increase his donation, each individual has to reduce his expenditure. If he is already buying only cheap seats, he can only reduce attendance, but if he is buying also expensive seats he can shift from expensive to cheap seats, which has a less negative impact on his utility.

Hypothesis 5: *The positive correlation between the amount donated (or the probability to become a donor) and the preference for new performances is stronger for individuals buying expensive seats than for individuals buying only cheap seats.*

Now consider the third reason for donating, i.e. the consumption of fringe benefits. Assume that the first order condition described above implied no donation or a donation less than $\underline{d}$. Then the only reason an individual may increase his donation to $\underline{d}$ is to be able to attend special events. Therefore, an individual who donates only for this third reason will never donate more than $\underline{d}$ and he will donate if and only if the utility from donating $\underline{d}$ and consuming fringe benefits (but having only $\bar{y}_i - \underline{d}$ to spend in attendance) exceeds the utility from not donating and having $\bar{y}_i$ to spend in attendance. The higher is γ_i, the more he anticipates to take advantage of the fringe benefits and therefore the more likely he is to donate $\underline{d}$. This can be reduced to the following condition:

$$\frac{(\gamma_i R)^2}{4} \geq v_i q \underline{d}[\alpha + \underline{d} + \bar{y}_i] \tag{16}$$

If (16) is not satisfied, then d_i^* is given by (15). If instead (16) is satisfied, then the individual donates the minimum amount $\underline{d}$. Note that (16) is more likely to be satisfied the higher the individual's income and the less he appreciates opera. This last feature is due to

the fact that these customers are budget-constrained and donations reduce the budget for attending the opera. This gives us the following empirical implications:

Hypothesis 6: *Individuals who donate the bare minimum to be in a specific donation class are the most sensitive to the consumption of the fringe benefits of that class.*

Hypothesis 7: *The probability to donate enough to have access to a higher donors' class is positively correlated with the preference for fringe benefits. Moreover, this correlation is stronger for individuals buying only cheap seats than for individuals buying expensive seats.*

The second part of the hypothesis is due to the fact that the first order condition in (15) are lower for individuals buying only cheap seats (because the substitution effect is stronger) and therefore they are more likely to need the second motive.

3 The Data Set

The data set that we analyze was obtained from the English National Opera (ENO), a British registered charity. On average, ENO stages 18 operas per year, for a total of about 190 performances (see Table 1). Of these operas, usually every year 7 or 8 are new productions. The English National Opera obtains financial support from the Arts Council of England and several corporations, but it is also characterized by a more direct appeal to the public for financial support than other UK institutions. As one can see from Table 2, total revenues from donations are a large part of the budget (larger than revenues from ticket sales). For instance, in 1997 revenues from ticket sales amounted to 7.5 million pounds while donations amounted to 10.2 million pounds. The importance of donations is even more evident if one considers that the current endowment of the ENO is 14.1 million pounds. Given that the current level of expenditures is 25 million, without donations ENO would find very difficult to finance two opera seasons, even using all the endowment. Covent Garden, the other major opera house in London, has a level of expenditure equal to 45 million pounds, which is comparable to ENO, but its endowment is 10 times larger. Therefore, donations are a very crucial element of the ENO budget.

We focus our analysis on individual donations. At ENO, individual donations are larger than corporate donations. For instance, in 1997 corporate donations were 2.9 million versus 7.3 million of individual donations. Therefore, individual donations are an important part

of the budget and affect ENO's decisions about future productions, as described in the previous section.

Table 3 describes the Gift Program of ENO, which has four levels of "Friends". The minimum donation required to be part of the lowest level of friend is 25 pounds, although donations can be (and many actually are) lower than that. In addition, there are four levels of membership in the more expensive "General Directors Circle" and "Production Syndicates". The production syndicates are created to enable groups of people to combine together in order to support a specific production. Other programs are targeted to donors who might wish to explicitly support either the development of aspiring singers or members of the orchestra. Associated with this sophisticated structure are similarly graduated packages of fringe benefits. These include advance information about performances at the ENO, access to rehearsals and invitations to talks and, at the highest levels of giving, invitations to the "Annual Fellows' Dinner" hosted by the General Director and the Chairman of the Board.

In Table 4 we list all performances offered by the ENO between 1994 and 1999. We distinguish between three types of productions: regular productions, sponsored revival and new productions. A *regular production* is the staging of an opera which has already been offered in past years and is in the repertory. A *new production* is the new staging of an opera. The ENO is well know for being quite active in developing new productions. These are typically more expensive than regular productions since the ENO commissions the work to a director, a set designer, a costume designer and a lighting designer. In the case of regular productions, these things would have instead already been paid in previous years. In addition, ENO is committed to present operas in English, so that for most of the new productions it also commissions a translation of the original libretto. Finally, a *sponsored revival* is an old production which is being renewed: as such the ENO commissions a revival director. A sponsored revival would therefore have extra costs but less than a new production. For simplicity, we treat sponsored revivals and new productions together. Both letters and leaflet emphasize how one of the role of friends is to support new productions. In addition, a series of events are reserved for the donors. To show what advantages are typically presented to a potential donor, in order to convince him to donate, we reproduce in Figures $1-3$ two letters to a potential donor and part of a leaflet representing the advantages of becoming a Friend. The advantages include access to special events including lunchtime and evening talks, recitals and dress rehearsals. Of all these special events, dress

rehearsals are numerically much more important.

Figure 1, 2, *and* 3 *about here*

ENO assigns each customer a unique ID number (more specifically, the ID number is assigned to the entire household) and each performance a unique alpha-numeric code. For each customer, the ENO also keeps track of donation sizes pledged and actually paid by pledge date and payment date. As a result, we have been able to construct a data-set covering the period from 1994 to 1999 and we know for which performances an individual bought tickets, how many seats and at what price, in addition to any donation (or commitment to future donations) he made. Since we do not have the identity of all the individuals that purchased tickets at the ENO, we do not know their income. However, we have their postcodes. The UK postcode is a very accurate description of a particular address. For addresses in central London, a postcode identifies a household to the precision of a single building. For other rural areas in England, a postcode identifies a set of at most 80 households. We have obtained a data set from the UK Bureau of Consumption which associates to each postcode the average household expenditure which we use as proxy for income in the empirical section. The data set is very detailed since it associates average expenditure to a postcode up to the last two digits. In central London this corresponds to the average expenditure of a block.

The difference of the U.K. tax rules on donations with respect to the U.S., during the sample period, is an important advantage of this data set, given the focus of our analysis. In 1990, the United Kingdom introduced the so called "Gift Aid" scheme, later modified in 1991. According to this scheme, a donor can claim tax relief on the amount donated for the difference between his/her marginal tax rate and the basic-rate. The basic-rate tax relief can instead be reclaimed by the charities. However, between 1993 until April 2000 (i.e. for the entire sample period of our data set) this tax relief was available only for donations above 250 pounds, which is an extremely high threshold with respect to the average size of the gifts to the ENO (as we will show in the next section). Moreover, in order for the donations to be tax deductable the fiscal identity of the donor had to be certified: phone and internet donations were not effectively accepted as part of the "Gift Aid" scheme. These restrictions imply that about 97.8% of the donations in our data set are unaffected by tax implications.

4 Summary Statistics

In this section we look at some summary statistics about individual behavior. To avoid individuals who may be acting as agents, we restrict the analysis to individuals buying at most 6 tickets for the same event. We obtain a data set composed of 72,193 donors (more specifically, households who donated) and 285,833 non-donors (households who did not donate). To avoid outliers problems, we further drop the top 2% of all donations. This implies to drop all donations above 330 pounds. Figure 4 shows the distribution of all donations before dropping the top 2%. Less than the 0.05% of the donations are above 1000 pounds.

Figure 4, *about here*

In Table 5, we show some summary statistics about the average annual expenditure, the number of tickets bought and the average price paid per seat by each individual. We distinguish between attendance to regular productions and new productions (which also includes sponsored revivals).

For both regular and new performances, the average expenditure by donors is more than twice as large as the average expenditure by non-donors. This difference is particularly high for new performances. On average, donors spend 114 pounds for both regular and new performances. This compares to 51.20 pounds and 31.77 pounds, respectively, for non-donors. The number of performances attended shows a similar pattern. On average, donors buy 4 tickets for both regular performances and new performances. This compares to 2 and 1, respectively, for non-donors. These differences are statistically significant. These results are consistent with Hypothesis 1: individuals who attend a larger number of performances are more likely to become donors. Also the average and median price per seat are higher, although the difference is smaller.

Table 5, *about here*

The difference in attendance to new and regular productions between donors and non donors can also be seen in Figure 5, where we show the histogram of the distribution of the attendance of new productions by donors and non donors. We see that the distribution of non donors is characterized by a large number of individuals, namely 53%, who never went to any new production in the same year. The distribution of the donors has instead a rightward shift. Only 19% of the donors did not go to any new production. Moreover, if

we consider those individuals who go with high frequency to new productions we can find a substantially higher proportion of donors. For instance, 8% of the donors purchase 8 tickets for New Productions, while only 2% of the non-donors display the same behavior.

Figure 5, *about here*

We then stratify the sample according to the cost of the seat. We first compute the average price paid per seat for each individual account. We then rank the accounts according to their average price per seat and say that an individual buys "expensive" seats if the average price is in the top three deciles of the price distribution (at least 33 pounds). Symmetrically, we say that an individual buys "cheap" seats if the average price is in the bottom three deciles of the price distribution (less than 17 pounds). In other words, we consider only individuals buying the most expensive and the cheapest seats. In Tables 6 we compare the amount donated and number of tickets bought by individuals who buy cheap and expensive seats. The average (annual) donation by individuals buying expensive seats is larger than the one by individuals buying cheap seats, although this difference is not large. In both subsamples it remains true that donors attend more performances than non-donors and the result is actually strengthened. Among those individuals who buy low quality seats, the median number of performances increases from 2 (non-donors) to 4 (donors), for both regular and new productions. The same results hold for individuals purchasing high-quality seats: the median goes from 2 (non-donors) to 3 or 4 (donors) for, respectively, regular and new performances. These differences are statistically significant.

Table 6, *about here*

Finally, we stratify the sample with respect to the income. In Table 7 we look at the people with the lowest income (bottom 30%) and the people with the highest income (top 30%). The average annual expenditure is higher for high income individuals. Although not reported in that table, also the average price per seat for high income individuals has a median of 25 pounds versus 22 pounds for low income individuals. We do not find significant difference in attendance. Finally, high income individuals donate more, which is consistent with Hypothesis 3 of the model.

Table 7, *about here*

In all these tables, the average and median donation are very low. In Figure 4 we can see that the distribution is heavily skewed to the left, which explains the low mean and

medians. Notice that a large part of the donations is below 25 pounds. This is important because 25 pounds is the minimum necessary to be able to attend dress rehearsals and some special events. In the next section, therefore, we will explicitly take this into account in the analysis.

5 Regression Analysis

In this section, we look at the empirical relationship between the donation and consumption choices. The analysis is designed and aimed both at (a) providing empirical evidence about the testable restrictions of the model of Section 2, and (b) describing the donation-consumption patterns in a robust (model independent) way.

We analyze this relation in stages. First, we look at the binary decision of becoming a donor using Probit regressions. Second, we look at the choice of *how much* to donate, conditional on becoming a donor.

The model implies that donation and attendance are jointly determined by the first order conditions in (15)—for the amount to donate—and in (5)—for the attendance.[17] The first order conditions in (5) also determine the choice of the attendance to dress rehearsals, but dress rehearsals do not depend on the other control variables (besides the fact that one has no access to them unless he donates), so that they do not have to be jointly estimated.

Attendance and donations are instead mutually dependent because (a) attendance affects the choice of the amount to donate (Hypothesis 1), and (b) the amount donated reduces the budget constraint and the amount of money that one can spend in attendance (Hypothesis 2). More precisely, donations are affected by the number of performances attended, while expenditure in attendance is affected by donations. Thus, in the regression analysis of the amount donated, the set of first order conditions are jointly estimated by focusing on the following system of two equations.

$$donation = F_1(attendance,\ pref.\ for\ new\ prod.,\ pref.\ for\ fringe\ benef.,\ income) \tag{17}$$

$$expenditure = F_2(donation,\ preference\ for\ new\ prod.,\ income) \tag{18}$$

The amount donated depends on the number of performances attended (Hypothesis 1), preference for new productions (Hypothesis 4), preference for dress rehearsals and other

[17] The optimal attendance is then given in (9) and (10) for low levels of income and in (11) and (12) for high levels of income.

special benefits (Hypothesis 7) and income (Hypothesis 3). The expenditure in attendance is influenced, through the budget constraint, by the amount donated (Hypothesis 2), the preference for new productions and the income.[18]

Of all these variables, the only ones which are not directly observable are the preference for new productions (ϕ) and the preference for fringe benefits (γ_i). We proxy the first one in two ways. Either by distinguishing attendance to new and not-new productions (and looking at the difference in impact) or by looking at attendance to new productions as a percentage of total attendance. In fact, the model in Section 2 implies that there is a positive relation between the parameter ϕ, which captures the preference for new productions, and the number of new performances attended, as a percentage of total attendance: the higher ϕ, the higher the proportion of new productions attended.

The fringe benefits are dress rehearsals and special events. The preference for dress rehearsals will be proxied using the consumption of dress rehearsals (since in the model there is a one-to-one relation between the number of dress rehearsals attended r and γ_i). For special events, the logic is the same as for dress rehearsals, with the additional complication that some special events can be attended only if a larger amount is donated (therefore a higher threshold than 25 pounds is used). Because of the potential correlation between the proxy and the estimation errors, we check the robustness of the results by using also instrumental variables.

5.1 Probit Analysis: the choice to become a donor

In this section, we run probit regressions of the binary choice of an individual to become a donor as a function of his consumption pattern. While in Section 4.2 we will jointly estimate equations (17) and (18), in the probit analysis we only estimate the reduced form. In Tables 8, 9 and 10 we present the results of the probit regressions. In Tables 8 and 9 the main explanatory variable is the number of performances attended while in Table 10 it is the annual expenditure.[19]

[18] The model did not imply a correlation between expenditure and preference for new productions. However, we mentioned that if we allow $g(S)$ to depend on total attendance or we assume that an individual enjoys attending a new production even more if he buys a high quality seat then the model would imply such correlation. Here we can therefore test for it.

[19] By number of performances we mean the number of *different* performances attended, independently on the number of tickets bought for each performance. In this way we abstract from the possibility that an individual would buy tickets also for friends (and would get reimbursed). We have conducted the same analysis of Table 8 using, as a measure of attendance, the number of tickets bought and there was no qualitative difference. Moreover, when we measure the annual expenditure, in order to differentiate the analysis, we look at total expenditure, i.e. we take into account the number of tickets bought.

We consider as donors only those who donated more than 25 pounds. The reason is that the most important fringe benefits are available only to individuals who donate more than 25 pounds. We have repeated the analysis considering as donors all those who donated a positive amount and the results are actually stronger (except, of course, for dress rehearsals and special events).

In Table 8, we present the results for the entire sample and the subsamples of individuals buying cheap and expensive tickets. An individual is defined to buy cheap (expensive) tickets if the average price per seat paid is in the bottom (top) three deciles of the distribution of the price per seat. For each case, in the first three regressions we explore the relation between the choice of becoming a donor and the attendance to new and regular (not-new) productions. Because of the potential collinearity between attendance to new and regular productions, we also present a second set of three regressions in which we use as explanatory variables total attendance and attendance to new productions as a percentage of total attendance.[20] More precisely, because the effect of this percentage is non-linear, we use the logarithm of one plus the percentage of performances attended which were new productions.

Other explanatory variables are the attendance to dress rehearsals, special events (i.e. all other fringe benefits offered to donors in addition to dress rehearsals) and income. Since the attendance to dress-rehearsals and special events is endogenous with respect to the decision of becoming a donor (in the sense that if an individual does not become a donor he cannot attend dress rehearsals), in Table 9 we will correct this problem using instrumental variables. A robust estimator of the variance-covariance matrix is obtained using the Huber-White estimator.

Table 8, *about here*

Table 8 shows that the consumption pattern has strong predictive power on the decision to become a donor. The pseudo R^2 of the probit regression for the entire sample is 17%. In the subsample of individuals consuming cheap and expensive tickets the R^2 is, respectively, 21% and 16%. All the slope coefficients are positive and significantly different from zero at the 1% confidence level, with the exception of some of the income coefficients for the expensive seats subsample.

In the overall sample, we can conclude that there is a positive correlation between the probability to become a donor and attendance (Hypothesis 1), the preference for new pro-

[20] The correlation between total number of performances attended and percentage of new productions is only 4.84%.

ductions (Hypothesis 4), dress rehearsals (Hypothesis 7) and the income level (Hypothesis 3). In the first three regressions, the correlation with the preference for new productions can be inferred from the difference in the pseudo R^2 and from the fact that attendance to regular performances has much less impact than attendance to new production, as it can be seen by looking at the coefficient, which is three times as high for new productions. This result is further confirmed by the fact that the percentage of new performances is positively correlated with the probability of becoming a donor. Dress rehearsals and special events are also positive and significant and they are the most important attendance variable in terms of the size of the coefficient (the coefficient of the percentage new is actually higher, but since it is a percentage it cannot be directly compared to the other variables).

When we stratify the sample with respect to the average quality of the seats purchased (bottom and top three price deciles), we find some interesting differences. Both the coefficients for total attendance and for the percentage of attendance to new productions are significantly higher for individuals buying expensive seats than for individuals buying cheap seats. Moreover, the income variable is positive and significant for individuals buying cheap seats while it is negative and sometimes non significant for individuals buying expensive seats. These results are consistent with the model. Individuals buying cheap tickets are budget constrained, so that income is important for the choice of becoming a donor. Individuals buying expensive tickets are less budget constrained, and the choice of donating at least the minimum amount is less likely to be dependent on income. (The negative coefficient is probably due to a non-linearity in the relation.) Moreover, preference for new productions is less important as a motive to become a donor for individuals who buy cheap seats. This is consistent with Hypothesis 5 of the model: since individuals buying expensive seats are less budget constrained, the substitution effect of a donation (less money for buying tickets) is less relevant and the complementarity effect (improving the "quality" of performances attended) is predominant.

The coefficient of dress rehearsals and special events is significantly larger for individuals buying expensive seats. This is surprising, since Hypothesis 7 would imply the opposite. However, the attendance to dress-rehearsals and special events is endogenous with respect to the decision of becoming a donor (in the sense that if an individual does not become a donor he cannot attend dress rehearsals) this variable is correlated with the residuals. This can potentially be a source of bias in the estimators. We correct for this problem by using Instrumental Variable Probit regressions in Table 9.

To instrument for the attendance to dress-rehearsals and special events, we proceed in

the following way. First, if an individual was a donor at time t, then we observe directly his consumption of dress rehearsals. If the individual is not a donor at time t, but he was a donor at time $t-1$, then we instrument the attendance to dress-rehearsals at time t with the lagged attendance to dress-rehearsals, a dummy variable for the lagged decision of being a donor, the attendance to the total number of performances and the level of income. If instead at time $t-1$ the individual was not a donor, then we compute how many dress rehearsals he would have attended if it had been a donor, based on the attendance to the total number of performances and the level of income at time $t-1$ and the regression estimated for repeated donors. These results are presented in Table 9.[21] Special benefits are instrumented in a similar way.

Table 9 *about here*

Most of the results are unchanged: the variable capturing the preference for new production is stronger and the difference between the slope coefficients for this variable between expensive and cheap seats becomes larger. The main change is that the difference in the coefficients of dress rehearsals and special events for cheap and expensive seats is reversed: the coefficient for cheap seats is significantly larger than the coefficient for expensive seats.

The Probit analysis seems therefore to confirm our hypothesis that two important motivations to become a donor are access to fringe benefits and the public good motive. Some individuals donate mostly to attend dress rehearsals and other special events, while other individuals, mainly the ones buying expensive seats, donate also to support new productions. The relative importance of these two motivations is influenced by the income level: individuals with high income (who buy expensive seats) are more likely to donate because they want to support the production of new operas (i.e. they want to contribute to the production of the public good); individuals with low income (who buy expensive seats) may also feel this motivation but, given that they are budget constrained, this may not be enough of an incentive and they may donate mainly in order to attend dress rehearsals.

In Table 10 we report the regression results based on the expenditure per seats (without instrumental variables).

Table 10 *about here*

[21] We have also conducted the same analysis by restricting the sample to the subset of individuals who donated at least once and looked at the probability that they donate again (more than 25 pounds). In this way we could always use only the lagged dress-rehearsals attendance as an instrument. The results are similar to the ones described here.

The results for the overall sample are consistent with the results in Table 8. We then partition the sample in two subsamples of individuals with high and low income. Consistently with what we found in Table 8, the coefficient for the percentage of attendance to new productions is significantly larger for high income individuals.

5.2 The choice of how much to donate

In this section we study the choice of the amount to donate. In Tables 11 through 13 we study the relation between the amount donated and the level of consumption of new and regular performances, and of dress-rehearsals. We measure the consumption both as the number of performances attended (Table 11) and as the expenditure in dollar terms (Tables 12 and 13).

In Table 11 we jointly estimate the system of equations (17) and (18) using Full Information 3SLS. The endogenous variables are the amount donated (Gift amount) and the total expenditure (i.e. attendance multiplied by the price paid for each performance). In the first equation, the explanatory variables are total attendance, the percentage of new performances attended over total attendance, the number of special events and dress rehearsals, and income. In the second equation, they are the amount donated, the percentage of new performances attended over total attendance, and income.[22]

Since some of the explanatory variables contain endogenous regressors, an OLS estimator would be inconsistent. Thus we estimate the system using Full Information 3SLS. For the reader's convenience, we briefly outline the estimation method used. Let us use the following general notation to describe the estimation of the bi-variate system of testable restrictions. Let Y_i be the included endogenous variables and X_i be the exogenous variables:

$$\begin{aligned} y_i &= Y_i\gamma_i + X_i\beta_i + \varepsilon_i \qquad i = 1,2 \\ &= Z_i\delta_i + \varepsilon_i \\ Z_i &= [Y_i\ X_i] \quad Z = \begin{bmatrix} Z_1 & 0 \\ 0 & Z_2 \end{bmatrix} \end{aligned}$$

First, we obtain an efficient instrumental variable estimator by projecting the endogenous regressors onto a set of exogenous variables W, part of which are the original X_i, with the property of $E(W_i\varepsilon_i) = 0$ to obtain

$$\hat{Z}_i = \begin{bmatrix} W(W'W)^{-1}W'Y_i & X_i \end{bmatrix}$$

[22] The first step when working with a system of simultaneous equations is to make sure that the model is identified, especially when the system contains endogenous explanatory variables. A necessary condition is that the number of exogenous variables excluded in equation j is at least equal to the number of included endogenous variables. We make sure throughout that the estimated model always satisfies this condition.

Second, given a consistent IV estimator of the parameters $\hat{\delta}_i^{IV}$, we estimate the asymptotic covariance matrix of the residuals $\Sigma_{ij} = E(\varepsilon_i \varepsilon_j)$

$$\hat{\Sigma}_{ij}^{IV} = \frac{1}{T}(y_i - Z_i \hat{\delta}_i^{IV})'(y_i - Z_i \hat{\delta}_i^{IV}) \tag{19}$$

Third, we obtain a consistent and asymptotically efficient estimator of the parameters δ_i as

$$\hat{\delta}^{3SLS} = \left[\hat{Z}'(\hat{\Sigma}^{-1} \quad I)Z\right]^{-1} \hat{Z}'(\hat{\Sigma}^{-1} \quad I)y$$

The asymptotic variance of the estimators $\hat{\delta}^{3SLS}$ used to construct the tests statistics is obtained as usual by first obtaining $\hat{\Sigma}_{ij}^{3SLS}$, using $\hat{\delta}_i^{3SLS}$ in place of $\hat{\delta}_i^{IV}$ in (19), as an estimator of the variance of the residuals. It is well known that alternative methods that give consistent and efficient estimators include full information Maximum Likelihood and GMM. Since the distribution of the endogenous variables is clearly not Normal, we decided against the use of ML estimators. It is known that GMM is superior to 3SLS in the case of heteroskedastic residuals. However, given the individual dependent structure of our problem, this advantage is likely to be marginal. Under the assumption of no heteroskedasticity, the asymptotic properties of the three methods is identical.

In Table 11 we consider three cases. First, we look at the entire sample of donors and non donors (gift amount ≥ 0): in this way we also capture the effect of the choice to become a donor, as in the probit analysis. Then, we restrict our attention to the subsample of donors only (gift amount > 0), which answers a different question: conditional on having decided to become a donor, is the amount donated positively correlated with these variables? Finally, we consider only donors who donated more than 25 pounds: they are the only ones who have access to dress rehearsals and special events. Since only in the last case we can observe the individuals' choice of dress rehearsals for everybody, in the first two cases we use instrumental variables for dress rehearsals in the same way as we did for the probit analysis. We first look at the entire sample and then to the two subsamples of cheap and expensive seats.

Table 11 *about here*

Table 11 shows in the overall sample that in all three cases attendance has a positive and statistically significant effect on the amount donated. The coefficient of the percentage attendance to new productions is positive and significant. Once again, this is consistent with Hypothesis 4 which argues that preferences for new productions was correlated not only with the probability to become a donor, but also with the amount donated. The public

good motive is thus relevant not only for the choice to become a donor, but also for the amount to donate.

The coefficients for dress rehearsals is positive and significant in the first two cases, but not when we limit our attention to people who donated more than 25 pounds. This is not surprising, since in order to attend dress rehearsals it is sufficient to donate the minimum threshold level of 25 pounds (the fact that the coefficient is negative and significant is probably due to some non-linearity). In the other two cases we are including non donors or donors who donated an amount lower than 25 pounds: the positive and significant coefficient tells us that one reason for the individuals to donate or to increase the amount donated up to 25 pounds is to have access to dress rehearsals. Instead, the fact that the coefficient of special events is positive and significant in all three cases is not surprising, since access to some of those events requires to be in a higher class of donors.

In the second equation, we find that the percentage of attendance of new performances is positive and significant. This is not strictly implied by the model. However, it may be argued that since individuals can enjoy even more attending a new opera from a high quality seat. This reinforces the complementarity between donations and attendance: donations increase (indirectly) the utility of attending so that individuals who care about new operas (i.e. with a positive ϕ) spend more in attendance. Our empirical results seem to support this possibility. The coefficient of the gift amount is negative and significant in the first two cases: this is the substitution effect implied by Hypothesis 2. However, the coefficient is not significant in the last case.

We then stratify the sample with respect to the price per seat. In the first regression, we find that the slope coefficient for the number of performances attended is significantly larger for those who purchased expensive tickets and the coefficient of the percentage of new performances attended is always positive and significant only for expensive seats, while for cheap seats it is significant only in the first case. Income is positive and significant only for cheap seats. The coefficient of dress rehearsals is positive and significant only in the first two cases: in the first case it is significantly higher for the cheap seats, while in the second case the difference is not significant. Finally, the coefficient of special events is positive and significantly higher for cheap seats.

In the second regression, the coefficient of the amount donated is negative and significant only for individuals buying cheap seats. The coefficient of the percentage of new performances attended is positive and significant for both subsample, but the relative size changes depending on which case we look at. Finally, income is positive and significant only

for expensive seats, which is the opposite of what happens in the first regression.

These results seem to support the following interpretation. If we compare individuals buying expensive seats to individuals buying cheap seats, we see a slightly different pattern of donation and a different importance of the motives. The public good motive is relevant mainly for individuals buying expensive seats. Fringe benefits seem to be relatively more important for individuals buying cheap seats if we condition on individuals being donors, but not if we consider the entire population of donors and non donors. This is also confirmed by the fact that the coefficient of total attendance is significantly higher for individuals buying expensive seats, since attendance is relevant for the public good motive (which underlies the complementarity between donation and attendance). The result strenghtens the conclusions of the probit analysis. Individuals who buy expensive seats are, according to the model in Section 2, less budget constrained so that income does not matter for their (binary) choice to become donors, as confirmed by the probit analysis. However, it does matter in the joint decision of the *amount* to donate and the attendance. We find, consistently with the model, that for these individuals there is no substitution effect. On the other hand, for individuals who buy only cheap seats there is a significant substitution effect: consistently with Hypothesis 2, these individuals decrease how much they spend to buy tickets to compensate for the increase in the amount donated.

In Table 12 we conduct the same analysis as in Table 11, with the only difference that now the explanatory variable in the first regression is the total expenditure instead of total number of performances attended. The results confirm the overall robustness of the conclusions drawn from Table 11.

Table 12 *about here*

Finally, we control for two possible effects. First, the results we find could be due simply to a time issue. In fact, from Table 4 one could see that the number of new productions, dress rehearsals and special events offered has been increasing over the years. We therefore introduce a dummy variable for each year covered by our data set, to correct for any possible such event.

Second, the reason people who donate attend a higher number of new productions could simply be due to the fact that they have already seen all the regular productions. Notice that per se this does not contradict our thesis. The model does not need to take a stand on why an individual prefer new productions. If the reason is that he has seen old productions and wants to see new ones, this is perfectly consistent with the spirit of the model, since

he is donating to support new productions (which are a public good, because other people care for new production and the fixed costs are indivisible). However, we still check the robustness of our results by introducing a variable equal to the total number of performances attended up to the donation moment[23]. The results including both effects are presented in Table 13. For simplicity, we reports the results only for equation (17). We find that even controlling for the cumulative performance and time effect, the previous interpretation of the results is robust.

Table 13 *about here*

6 Excess Donations

In the previous sections we tested the empirical implications of the model by studying the differences in the pattern of donations depending on income and consumption. The amount donated was considered as a continuous variable, and an increase in the amount donated was treated in the same way, independently from the initial amount. However, in Table 3 we showed that donations are divided into different categories, where each category has a minimum and maximum donation amount. In this section we look at donations in excess of the minimum amount to enter a certain category, in order to capture two effects. First, we mentioned that one of the reasons for donating may be "social prestige": donors want other people to know they have donated. Since ENO donors' names are publicized only as members of a certain category, any donation in excess of the minimum to be in that category cannot have a social prestige motive. Second, fringe benefits are the same within a category: to be able to consume these fringe benefits, an individual has to donate just the minimum amount for that category. Any additional amount donated does not increase the right to have access to additional private goods.

We first divide donors within each class of donation, say 25 to 50 pounds, into four groups: (a) the group that has donated the minimum amount to be in that class, for example 25 to 27.50 pounds, (b) two groups for those who donated in excess to the minimum amount, with a donation amount that falls in between two consecutive thresholds, say 27.50 to 35.00 and 35.00 to 42.50 and (c) the group that has donated substantially more than the minimum for that donation class, say 42.50 to 49.99. Each of these subgroups has the same right to attend special performances. In Figure 7 we document for each donation category

[23] We refer to this variable in Table 13 as "cumulative performance".

what percentage of individuals attends dress rehearsals. If we look at the lower categories, the individuals who donate the bare minimum to be in a particular donation category are the ones who attend more dress rehearsals.

Figure 7 *about here*

The fact that individuals who donate the bare minimum in the lowest category attend many more dress rehearsals than individuals donating more is exactly what we argued until now: if an individual becomes a donor only in order to attend dress rehearsals, he will donate the minimum necessary to be able to attend (Hypothesis 6). The fact that we find this pattern also in the two higher categories is instead at first sight perplexing: one may argue that since this amount is more than the minimum necessary in order to attend dress rehearsals in any case, we should not find this pattern at all. However, this pattern can be explained if we interpret attendance to dress rehearsals as a proxy for interest in fringe benefits. In other words, if an individual donates mainly in order to consume fringe benefits, he will donate only the minimum amount to reach a given category (where the category will be chosen on the basis of the trade-off between the amount paid and the fringe benefits obtained). Therefore, this individual will consume more fringe benefits than other donors in the same donation class. Dress rehearsals are part of these fringe benefits and, although they did not require such a high donation, may indicate that the individuals is particularly keen on consuming fringe benefits. On the other side, for the highest donation classes, dress rehearsals are not an important fringe benefit (or fringe benefits are not an important reason at all) and that is why we observe less and less difference between those who donate the minimum and those who donate the maximum.

In Table 14 we present the results of a regression of the excess donation over the consumption pattern. The excess donation is defined as the difference between the actual amount donated and the threshold level that defines each donation class. The threshold levels are £25, £50, £100 and £175 and each class of donation has different types of fringe benefits. For each class we regress the excess donation onto the attendance to special events, dress-rehearsals and the preference for new performances, where this last variable is measured in three different ways: the number of new performances attended, the percentage of performances attended which are new productions and a dummy which takes value one if the individual has attended more new productions than the mean.

Table 14 *about here*

Let us first focus on the first category (with the lowest level of donation): the amount donated in excess of the threshold level is positively correlated with the consumption of special events and of new performances, while the correlation with the attendance to dress rehearsals is not significant in the first subgroup and it then becomes negative and significant. If we look at the highest donation classes, everything loses significance. Only the attendance to dress rehearsals is still negative and significant for a few classes and then becomes insignificant.

This may suggest that those who donate to have access to the fringe benefits associated to each class of donation self-select by donating the minimum level that allow them to belong to a particular class of donations. When they donate more, they are motivated by the new productions. As the amount donated becomes larger and larger, however, the excess donation is not explained by these variables and it looks more like pure generosity.

7 Repeated (and Interrupted) Donations

Although the model presented in Section 2 is a one period model, we have several years of data and we can actually observe whether people donate only once or continue donating over the years. Looking at how the behavior changes over the years allows us to test the model from a different perspective.

First of all, looking at repeated donations allows us to distinguish between individuals who donate one year only and individuals who keep donating. An individual who donates only once and then changes his mind may have stopped because his consumption turned out to be different from the one anticipated. By looking at repeated donors, we would have no such problem.

Moreover, so far we compared donors to non-donors, but we can also extend the analysis to individuals who changed their pattern of consumption. For instance, we can study the consumption of individuals before and after they start donating (or after they stopped donating). In this way we can isolate the substitution effect of Hypothesis 2, i.e. the fact that an increase in donations reduces the budget for buying tickets.

In Table 15 we present summary statistics of all the events consumed by donors in four different periods: the year before they donate for the first time, the first year in which they donate, the second consecutive donation year and the first year in which they stopped donating.

If we compare an individual's average price per seat (for both new and regular productions) in the year before he donates and in the first year he donates, we find that it

decreases for both new and regular productions. Moreover, it increases when the individual stops donating. This may suggest that there is a substitution effect between consumption and donations.

The average attendance of new productions, instead, increases from the year before he donates to the following year, while for regular productions it decreases. This may suggest that an individual starts donating when he decides to attend more new productions (i.e. when he starts having a preference for new productions). In fact, we can see that the proportion of new performances attended ($\frac{new\ seats}{not\ new\ seats}$) is higher when the individual starts donating and is even higher for those who continue to donate. However, it does not decrease when the individual stops donating.

The attendance to dress rehearsals (special events) is three times (twice) higher for continuing donors. This suggests that if instead of looking at all donors we focus on repeated donors (and drop those who stopped donating after one year) we can find even stronger support to the features of our model.

In Table 16 we look at how the consumption choice changes when an individual starts or stops donating. In particular, we look at the change in the average seat price, expenditure, attendance of new productions as a percentage of total attendance, total attendance and total attendance including dress rehearsals. Panel A looks at individuals' behavior in the year in which they start donating and Panel B in the year in which they stop donating. In panel A the dummy takes value 1 if the individual, who was not a donor at time $t-1$, becomes a donor at time t. In panel B the dummy takes value 1 if the individual, who was a donor at time $t-1$, stops donating at time t. Interestingly when the dependent variable is the average price per seat, the dummy is negative and significant in Panel A and positive and significant in panel B. This suggests that there is a substitution effect between consumption and donations, as in the Hypothesis 2 of the model: the individual, having donated money, is more budget constrained, and therefore reduces his expenditure in buying tickets.

One may also ask how this reduction in the expenditure is realized. Does an individual reduce attendance or the average price he pays? When we look at the change in total attendance, we find that the dummy is not significant. But when we look at the change in attendance including dress rehearsals we find that the dummy is positive and significant. In other words, individuals may substitute attendance to evening performances with dress rehearsals (which are cheaper), reducing in this way the amount they spend without reducing attendance. This is consistent also with the fact that in the regression on the reduction in

expenditure the coefficient of dress rehearsals is negative and significant.

When the dependent variable is the percentage of new performances attended, the dummy is positive and significant in Panel A and negative and significant in panel B. This suggests once again that one of the motivations to donate is to support new productions. Moreover, the donation amount is positively correlated with attendance of new productions as a percentage of total attendance, but negatively correlated with the change in this variable. This suggests either that the relation between preference for new productions and gift amount is concave or even that the relation between preference for new productions and its proxy (attendance to new productions) is concave: although people have a preference for new productions, time constraints and preferences across operas may limit their ability to increase the number of new performances attended as much as they would like.

Finally, we can look at the intertemporal dimension of donations from yet another perspective. In the model an individual chooses whether to donate, taking into account his future attendance (in particular, the consumption of new productions).

Until now we focused on attendance in the same year as the donation. One may however argue that donations affect the choice of new productions in the following year. Therefore, in Tables 17 and 18 we regress the amount donated onto attendance taking into account the time lag, so that attendance is measured one year later than donation.

Therefore we consider donation at time t and attendance at time $t+1$. We distinguish between individuals who at time $t+1$ are still donors (Table 17) and individuals who are no longer donors (Table 18).

Even for individuals who stopped donating we find a strong positive correlation between current year donation and following year consumption of seats for new performances. This is stronger than the correlation with regular performances, suggesting that Hypothesis 2 is valid also from an inter-temporal point of view: donors anticipate consumption in the following years.

Moreover, the donors who continue to donate are especially sensitive to New Productions, both in absolute terms and in relative terms. In relative terms, the ratios of the slope coefficients is $\frac{0.64}{0.21} = 3.0476$ for individuals who continue to donate, while it is $\frac{0.23}{0.10} = 2.3$ for individuals who stopped donating. In absolute terms the donors who continue to donate have slope coefficient for new performances of 0.64 versus 0.23. The results hold true especially for those who buy expensive tickets. In this category, the slope is 1.59 (New) and -0.05 (Old). For those who buy cheap tickets the slope coefficients flip sign, however these are not statistically significant.

These results confirm the idea that the features identified in the model in Section 2 hold even strongly for individuals who keep donating.

8 Conclusions

We have developed a model that shows how different motivations for donating can be reflected into different consumption patterns. We then used data from the English National Opera, and found that people appear to be motivated by the desire both to consume the fringe benefits (access to dress rehearsals and other special events that ENO offers to donors) and to contribute to the production of a public good. The pubic good identified in the context of ENO is the staging of new productions, which entail additional fixed costs. Individuals who show a preference for new performances are more likely to donate (and to donate a larger amount). This is consistent with our hypothesis that they want to make sure that the public good (new productions) will be produced and are therefore willing to help covering the fixed costs.

We go beyond these predictions and look at cross differences among individuals that would arise if the donation choice were the result of a self-interested utility maximization. Consistently with our predictions, we find that low income individuals, who buy cheap seats, are budget constrained. As a result, they are more likely to donate to have access to fringe benefits than to contribute to the public good. This is reinforced by the fact that the donation seems to create a reduction in the amount spent to buy tickets and therefore does not necessarily create a net increase in funds to the opera house. Individuals buying expensive seats, instead, seem to be more motivated by the public good component and do not show evidence of a substitution effect.

These results show that individuals may donate in order to make sure that a public good is provided: in other words they do feel pivotal and do not completely free-ride. An advantage of our approach is that we can differentiate among the three motives for donating—fringe benefits, public good and altruism. This allows us to study what type of individuals are more likely to donate for each motive, and also to quantify (at least partially) the relative importance of different motives.

Finally, our research may be useful for fundraising efforts in the arts, indicating which people to target with what arguments and also pointing out the substitution effect: an increase in donations may reduce the revenues from the tickets sale.

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Friends of English National Opera

London Coliseum, St Martin's Lane, London WC2N 4ES Membership Office 0171 836 0111 ext 420
Fax 0171 379 1264

05 March 1998

Personal reference number: 20059296

Dear

You may recall that we wrote to you last year and asked you to renew your membership of the Friends of EN
We do not yet appear to have received a response from you - I wonder if the letter reached you safely?

As you know, your support is vital to ENO. Our Friends play a crucial role in ensuring that we can continue to stage exciting, accessible opera such as this season's hugely successful new productions of *Falstaff, The Flying Dutchman* and *From the House of the Dead*.

Under the artistic leadership of Paul Daniel, ENO is set to go from strength to strength. However, with a major government review into the provision of opera in London underway, we need to work harder than ever ensure the Company's unique identity is preserved. The importance of our Friends at this time cannot be ove stated and I do hope you will choose to continue your involvement with ENO by renewing your membership today.

With best wishes,

Yours sincerely,

A Caldicott

Anna Caldicott
Friends Manager

Figure 1. Letter of solicitation by the English National Opera to renew the donations.

Because of our commitment to low seat prices, ticket revenue can only cover around a third of the costs of running a world-class opera company.

We therefore rely on government grants, sponsorship and, most importantly, the support of our Friends to make up the difference.

Become a Friend and support new productions

The financial support of the Friends of ENO is vital to our success. When you become a Friend, a substantial proportion of your membership fee goes directly towards the staging of new productions. Friends have recently supported new productions of *Lohengrin* (1993/4), *Tosca* (1994/5) and *The Fairy Queen* (1995/6).

You can join the Friends of ENO at one of four levels: as a Friend, Bronze Friend, Silver Friend or Gold Friend. Choose any level of membership and you can provide an invaluable contribution to our work, enabling us to continue making quality opera accessible to a wide public. *Your support is a vote of confidence in ENO. Please join today.*

Join us behind the scenes

As a Friend you gain unique access to the Company and those most closely involved with our work. Different levels of involvement as a Friend offer various benefits including the opportunity to see behind the scenes, getting to know our conductors and directors, the ensemble of singers, our orchestra and the many people who contribute to ENO's high quality productions. Friends also enjoy priority booking for ENO performances at the Coliseum and for a variety of special events including lunchtime and evening talks, recitals and specially-priced Dress Rehearsals.

Benefits include

Friend £25-49*

- Advance information about performances at the Coliseum
- Priority booking for ENO performances**
- Priority booking for a variety of events including talks and recitals
- Priority booking for up to 15 Dress Rehearsals each season
- A subscription to ENO's *Coliseum* magazine, published 3 times a year
- A personalised membership card

- **Bronze Friend £50-99**

Bronze Friends receive all of the Friends' benefits, plus an invitation to a special pre-rehearsal talk.

Silver Friend £100-174

- Silver Friends receive all of the Bronze Friends' benefits, plus an invitation to an annual reception to meet Company members and performers.

Gold Friend £175-249

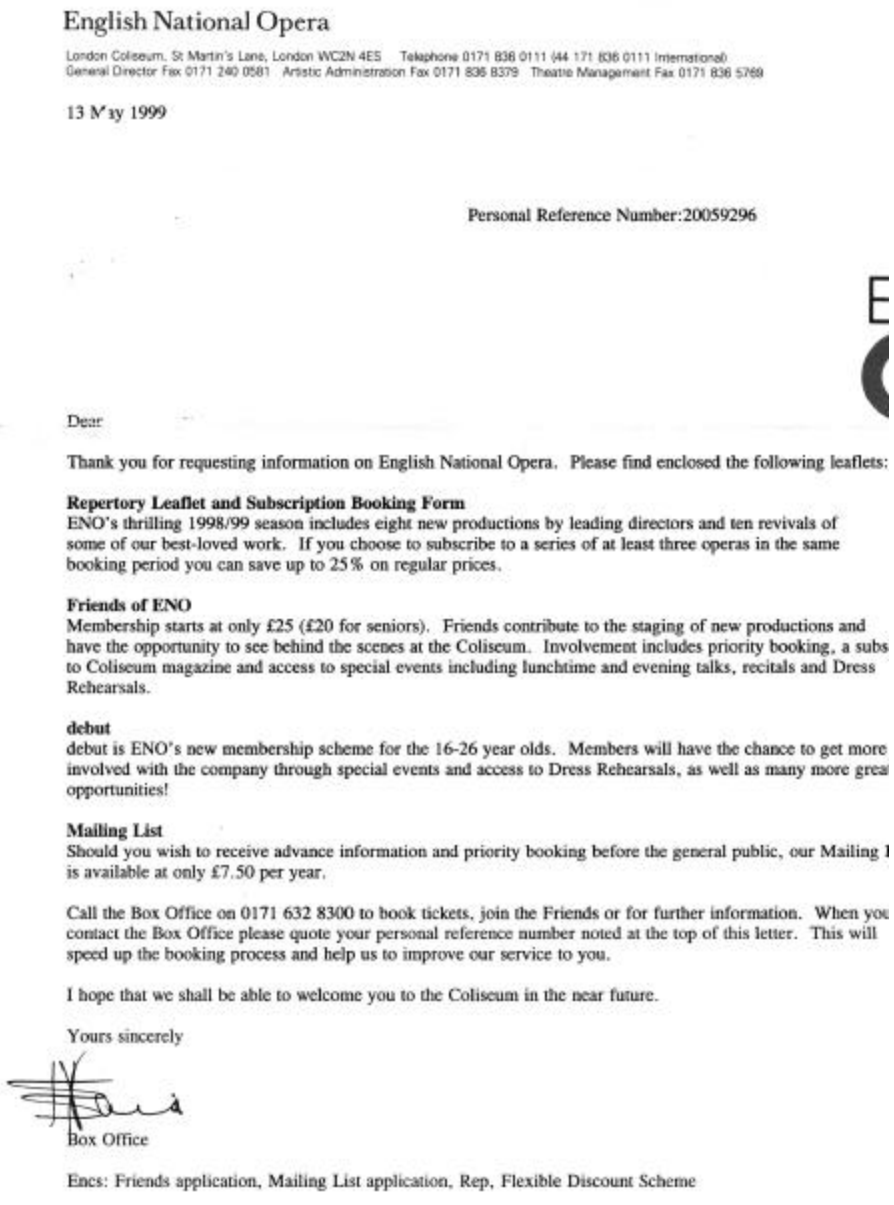
- Gold Friends receive all of the Silver Friends' benefits, plus an exclusive opportunity to attend a music rehearsal.

We also offer opportunities for patrons wishing to make contributions in excess of £250. Please ring the Development Office on 0171 836 0111 x439 for further information.

*Senior citizens can purchase £25 membership for £20.

**except charity fundraising galas

Figure 2. "Become a Friend and Support New Productions": a letter of solicitation by the English National Opera.



English National Opera

London Coliseum, St Martin's Lane, London WC2N 4ES Telephone 0171 836 0111 (44 171 836 0111 International)
General Director Fax 0171 240 0581 Artistic Administration Fax 0171 836 8379 Theatre Management Fax 0171 836 5769

13 May 1999

Personal Reference Number:20059296

Dear

Thank you for requesting information on English National Opera. Please find enclosed the following leaflets:

Repertory Leaflet and Subscription Booking Form
ENO's thrilling 1998/99 season includes eight new productions by leading directors and ten revivals of some of our best-loved work. If you choose to subscribe to a series of at least three operas in the same booking period you can save up to 25% on regular prices.

Friends of ENO
Membership starts at only £25 (£20 for seniors). Friends contribute to the staging of new productions and have the opportunity to see behind the scenes at the Coliseum. Involvement includes priority booking, a subs to Coliseum magazine and access to special events including lunchtime and evening talks, recitals and Dress Rehearsals.

debut
debut is ENO's new membership scheme for the 16-26 year olds. Members will have the chance to get more involved with the company through special events and access to Dress Rehearsals, as well as many more grea opportunities!

Mailing List
Should you wish to receive advance information and priority booking before the general public, our Mailing I is available at only £7.50 per year.

Call the Box Office on 0171 632 8300 to book tickets, join the Friends or for further information. When you contact the Box Office please quote your personal reference number noted at the top of this letter. This will speed up the booking process and help us to improve our service to you.

I hope that we shall be able to welcome you to the Coliseum in the near future.

Yours sincerely

Box Office

Encs: Friends application, Mailing List application, Rep, Flexible Discount Scheme

Figure 3. "Friends of the ENO": a typical letter from the English National Opera to potential donors.

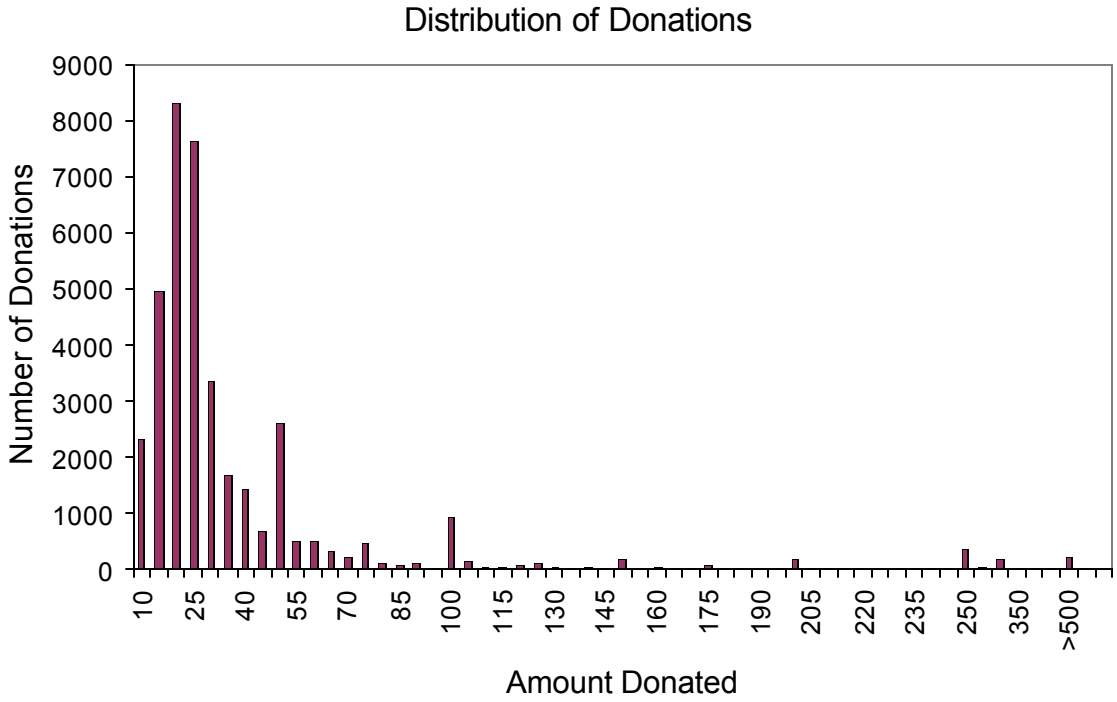


Figure 4. Distribution of the amount donated (x-axis). The vertical axis shows the absolute number of donations of a given amount.

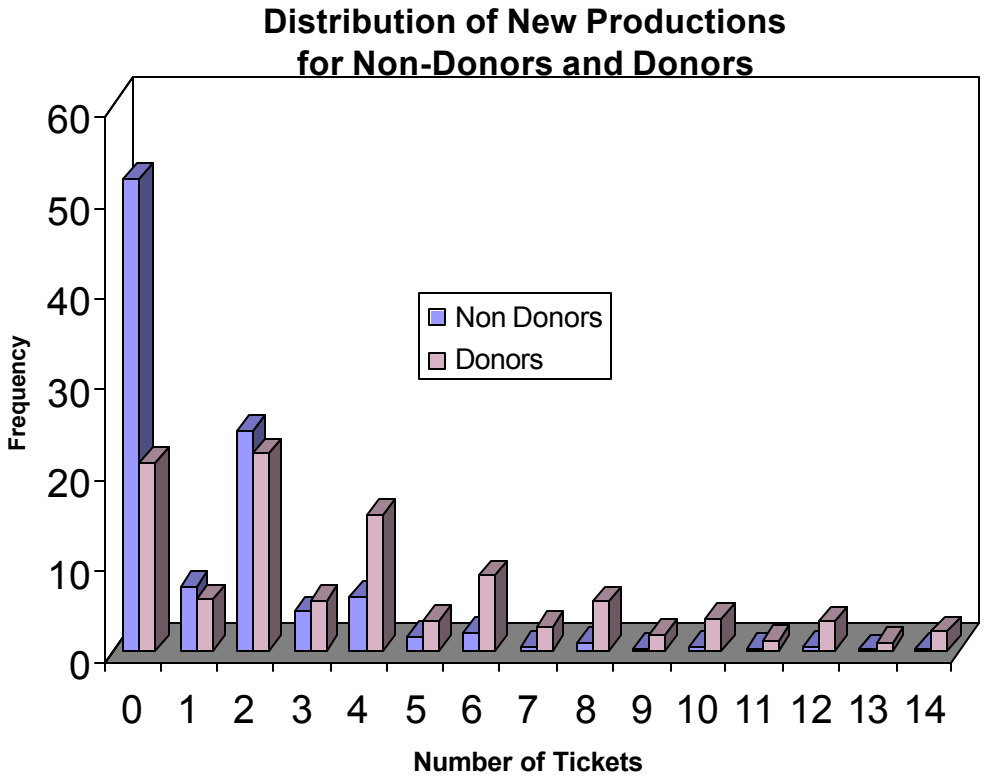


Figure 5. Non-parametric histogram of the distribution of the number of tickets for New Productions purchased by Non-Donors (left bar) and Donors (right bar).

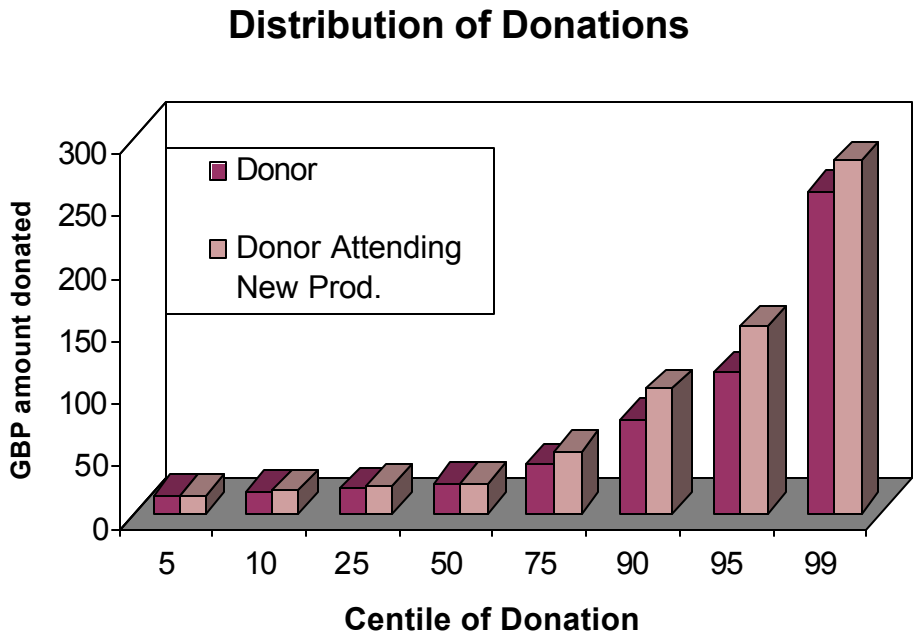


Figure 6. Plot of the amount donated at different centile levels, conditional on the donor having attended New Productions or Not.

Figure 7. Distribution of attendance to Dress Rehearsals as a function of the different level of donation. Each donation class is subdivided into three groups: (a) the group that has donated the minimum amount to in that class, (b) the group that has donated an amount that falls in between two consecutive amounts and (c) the group that has donated an amount that is high with respect to the donation class. Each of these subgroups has the same rights to attend special performances.

Table 1
PERFORMANCES OF ENO

This table reports all the performances of ENO. *NN* are *Not-New* productions, *SR* are *Sponsored Revival* Productions, *N* are *New* productions, *NNDR* are *Not-New* Productions, *SRDR* are *Sponsored Revival Dress Rehearsals*, *NDR* are *New Dress Rehearsals*. In the last three rows the data are aggregated, indepentently of whether the production was Sponsored or not.

	1994	*1995*	*1996*	*1997*	*1998*	*1999*
			PERFORMANCES			
NN	13	25	18	19	19	16
SR	1	4	0	0	0	1
N	1	12	8	6	8	6
NN DR	5	7	5	12	11	10
SR DR	1	2	0	0	0	0
N DR	0	3	4	6	7	6
New Total	1	12	8	6	8	6
Not New Total	14	29	18	19	19	17
Dress Rehearsal Total	6	12	9	18	18	16

- Workshop

  These are workshops associated with different operas. There are 6 different events, for which we have alltogether 9 buyers. Eight of these are corporate buyers and are excluded from our analysis since the number of seats bought ranges from 15 to 138. Prices are either £5 or £15. None of them are donors.

- Talks

  There are 2 big talk events: (a) a talk given by Mark Elder with 560 buying accounts and (b) a talk by Jonathan Miller with 481 buying accounts. Moreover, there are 3 small "Enjoy the Opera Pre-performance Talk" for a total of 9 accounts. All these events are free. Out of 1,050 buying accounts, 1,010 are donors and 40 are non-donors.

- Lunch Events

  These are lunch time events: (a) "Conversations" and (b) the "Friend's Lunch Time Events". There are 7 of them and 2,263 buying events. The price paid is £5 in 2,244 cases and £0 in 19 cases. 2,018 of the buying events are by donors and 245 by non-donors.

- Dinner Events

  These are dinner time events: (a) 5 unspecified evening events and (b) two "Friend's Evening Time Events". 2,568 are done by donors and 245 are done by non-donors. Prices are £0 in 30 cases while the rest are either £5, £7.5 or £10.

- Director Events

  These are the "General Director Circle Events". There are 5 different events for 397 buying accounts, of which 377 are donors and 20 are non-donors. Prices paid were £7.5 in 207 cases, £10 in 173 cases and 17 tickets are assigned free of charge to donors.

- Silver and Gold Member Events

  These are two receptions for the silver and gold members. The number of buying events was 35 and the prices were £15 and £10. Of the 35 buying accounts 32 were donors and 3 non-donors.

- Young Friends Events

  These are the "Young Friends Debut Events". There is only one of this type of event for a total of 11 buyers, from 7 different accounts. The price was £4 for all of them and they were all donors and all of them donated £10.

- Pre-Performance Talk

  Under this heading we classify both the pre-performance talks but also some other miscellaneous special event such as "Coliseum Restoration Event", "Verdi Sing Along". There are 2,963 buying events, of which 1,250 are done by donors. 1,406 were free and the rest were sold at prices ranging from £1 to £20.

- Program.

  About 45 different programs have been printed in association with the performances. There are 1,107 different buying events, of which 234 are done by donors. Prices were £3 in 902 cases, £6.5 in 124 cases and the rest from £0 to £6.

- Tour

  This is an organized tour of the Coliseum. There are 167 buying events, of which 139 were done by donors. In 158 cases the price paid was £4 and 9 tickets were assigned free of charge to donors.

- Special Events

  There are 3 unspecified "Special Events" and 3 unspecified "Friends' Special Events". There are 1,039 buying accounts, of which 931 were donors and 108 were non-donors. Prices paid ranged from £0, in 172 cases, to £15.

- Tribute

  This is a "Tribute to Donald Adams" for which there were 122 buying events all assigned for free. 20 were assigned to donors and the rest to non-donors.

Table 2
SOURCES OF INCOME FOR ENO

This table reports the sources of income of ENO. NNR are Not-New Regular performances; SSR are Special events; NR are New Regular performances; Total Regular are the sum of Not-New, New and Special Regular performances; NNDR are Not-New Dress Rehearsals; NDR are New Dress Rehearsals; Total Dress Rehearsals are the sum of Not-New, New and Special events Dress Rehearsals.

	1994	*1995*	*1996*	*1997*	*1998*	*1999*	*2000*
				TOTAL REVENUES FROM TICKET SALE			
NNR	3,643,808	3,273,464	3,303,450	4,536,030	0	0	0
SRR	238,912	629,337	0	0	0	394,507	263,910
NR	652,707	2,896,145	3,815,425	2,909,396	2,575,180	3,027,249	460,396
Total Regular	4,535,428	6,798,947	7,118,875	7,445,427	7,600,596	8,687,169	1,517,829
NNDR	27,867	35,924	30,085	64,922	79,948	60,585	37,858
SRDR	5,022	1,021	0	0	0	8,483	8,537
NDR	0	16,242	23,694	35,228	54,543	58,167	15,984
Total Dress Rehearsal	32,889	53,188	53,779	100,150	134,491	127,236	62,378
Total	4,568,317	6,852,136	7,172,655	7,545,577	7,735,087	8,814,406	1,580,208
				TOTAL REVENUES FROM TICKET SALE			
Corp Account	167,533	240,783	185,382	220,760	169,901	159,378	46,635
Individual	4,400,784	6,611,353	6,987,272	7,324,817	7,565,186	8,655,027	1,533,572
Total	4,568,317	6,852,136	7,172,655	7,545,577	7,735,087	8,814,406	1,580,208
				TOTAL REVENUES FROM DONATIONS			
Corp Account	2,613,795	2,631,159	2,405,170	2,927,569	3,776,095	4,265,083	808,442
Individual	6,739,099	12,216,803	7,960,295	7,323,476	3,077,349	3,480,884	1,311,004
Total	9,352,885	14,847,963	10,365,465	10,251,045	6,853,444	7,745,967	2,119,446
				TOTAL REVENUE			
Corp Account	2,781,329	2,871,943	2,590,552	3,148,329	3,945,996	4,424,461	855,078
Individual	11,139,875	18,828,157	14,947,568	14,648,294	10,642,535	12,135,912	2,844,577
Total	13,921,203	21,700,099	17,538,120	17,796,623	14,588,531	16,560,373	3,699,655
				SOURCES OF REVENUE IN PERCENTAGE			
Corp Account	19.98%	13.23%	14.77%	17.69%	27.05%	26.72%	23.11%
Individual	80.02%	86.77%	85.23%	82.31%	72.95%	73.28%	76.89%

Table 3
THE ENO'S GIFT PROGRAMS

This table describes the characteristics of the fringe benefits that are offered to donors, depending on the size of the donation.

Program	*Level of Gift*	*Fringe Benefits*
Friend:	25-49	Advance information about performances Priority booking for ENO performances Priority booking for variety of Friends Events, including talks Priority booking for dress rehearsals A subscription to ENO's Coliseum magazine, published three times a year A personalised membership card
Bronze Friend:	50-99	All of the above plus: An invitation to a special pre-rehearsal talk
Silver Friend:	100-174	All of the above plus: An invitation to an annual reception to meet Company members and performers
Gold Friend:	175-249	All of the above plus: An exclusive opportunity to attend a music rehearsal

Table 3_b
THE GENERAL DIRECTOR'S CIRCLE

This table describes the characteristics of the fringe benefits that are offered to donors, depending on the size of the donation.

Program	*Level of Gift*	*Fringe Benefits*
Associate Membership:	250–499	"ENO may extend": Advance production information Advance ticket booking Invitation to special events *Coliseum* Magazine An invitation to start a season party
Benefactor Membership:	500-999	"ENO may extend all of the above plus:" Invitation to attend works in progress and rehearsals Opportunities to explore behind the scenes at the Coliseum
Patron Membership:	1000-2499	"ENO may extend all of the above plus:" Dedicated ticket line Invitation to attend work in progress at the Contemporary Opera Studio The ability to book private rooms for entertaining guests An invitation to the annual patron's dinner Acknowledgment in the Foyer
Fellow Membership:	2,500 minimum	"ENO may extend all of the above plus:" Invitation to the Annual Fellows Dinner hosted by the General Director and the Chairman of the Board An account facility for the purchase of tickets and entertaining
Production Syndicates:	Not Stipulated	"May have the opportunity to be involved through:" Model showing with the director Access to the rehearsals Invitation to first night company party Cast post-performance supper
Major Gift	N/A	Not Articulated
Legacies:	Not Stipulated	Not Applicable
		ARTISTIC SCHEMES
OperaZingers:	Not Stipulated	"May include the following opportunities": Performances by your supported singers and the chance to meet them afterwards
Orchestra Scheme:	1000 minimum	"May be involved in the following ways" Information on the orchestra Opportunities to meet the players Attendance at orchestra rehearsals Talk from players and conductors Recognition in the program

Table 4
NEW PERFORMANCES AND SPONSORED REHEARSALS

This table describes all the opera productions by the English National Opera during the period of the data set. For each opera production, we describe whether it was a Sponsored Revival, a New Production or a Not-New Production; we provide the name of the donor; we state whether ENO staged a dress-rehearsal open to the public, a special Talk, Dinner or Lunch event with regards to this production; we give information on whether a new libretto has been developed.

Year	*Opera*	*Spons. Rev.* /New Perf. /Not New P.	*Sponsor*	*Dress Rehearsal*	*Meal /Talk*	*Libretto*
1994	Simon Boccanegra	NN	Not Specified	N	N	N
	Street Scene	NN	Not Specified	N	N	N
	La Boheme	N	Friends of the ENO	N	N	N
	The Rape of Lucretia	NN	Not Specified	Y	N	N
	The Barber of Seville	NN	Not Specified	Y	N	N
	Figaro's Wedding	NN	Not Specified	Y	N	N
	Lohengrin	NN	Friends of the ENO	N	N	N
	Die Fleldermaus	NN	Not Specified	N	N	N
	The Two Widows	N	Guiness PLC	Y	N	N
	Xerses	N	Not Specified	Y	N	N
	Der Rosenkavalier	N	Not Specified	N	N	N
	Falstaff	SR	Not Specified	Y	N	N
	The Pearl Fishers	NN	Not Specified	N	N	N
1995	Eugene Onegin	N	Not Specified	N	N	N
	Blond Eckbert	N	Geoffrey C. Hughes Charitable Trust	N	N	N
	The Tale Within The Tale	NN	Not Specified	N	N	N
	Cosí Fan Tutte	N	Not Specified	Y	N	N
	Peter Grimes	N	Not Specified	Y	N	N
	Jenufa	NN	Not Specified	N	N	N
	La Bohéme	N	Not Specified	N	N	N
	Tosca	N	Friend's of ENO	N	N	N
	The Mikado	N	Not Specified	N	N	N
	Don Quixote	N	Not Specified	Y	N	N
	The Magic Flute	N	Not Specified	Y	N	N
	Ariadne on Naxos	NN	Not Specified	Y	N	N
	Khovanshchina	N	Not Specified	N	N	N
	Figaro's Wedding	N	Not Specified	N	N	N
	Rigoletto	SR	Not Specified	N	N	N
	King Priam	N	Not Specified	Y	N	N
	Madam Butterfly	NN	Not Specified	Y	N	N
	The Cunning Little Vixen	SR	Not Specified	Y	N	N
	Don Giovanni	N	Guiness PLC	N	N	N
	Life with an Idiot	N	Not Specified	Y	N	N
	Cosí Fan Tutte	N	KPMG/BSIS Matching Fan Sponsorship	Y	N	N
	The Force of Destiny	N	Not Specified	Y	N	N
	A Midsummer Night's Dream	N	Fan Sponsorship	N	N	Y
	Rise and Fall of the City of Mahagonny	N	Not Specified	N	N	N
	Tosca	N	Not Specified	Y	N	N
1996	Carmen	N	Not Specified	N	N	N
	Cosí Fan Tutte	NN	Not Specified	N	N	N
	Rusalka	NN	Not Specified	Y	N	N
	The Fairy Queen	N	Not Specified	Y	N	N
	The Barber of Seville	N	Not Specified	N	N	N
	Turandot	N	Not Specified	Y	N	N
	La Belle Vivette	N	Friends of ENO	Y	N	N
	The Pearl Fishers	NN	Not Specified	Y	N	N
	The Magic Flûte	NN	Not Specified	Y	N	N
	Tristan and Isolde	N	Not Specified	Y	N	N
	Tosca	N	Not Specified	Y	N	Y
	Don Pasquale	N	Not Specified	Y	N	Y
	Orfeo	NN	Not Specified	Y	N	N
	Fidelio	N	A Syndicate of Individual Donors	Y	N	N
	Ariodante	N	Not Specified	Y	N	N
	Salomé	N	Not Specified	Y	N	N
	La Bohéme	N	Not Specified	Y	N	N
	The Prince of Homburg	N	Not Specified	Y	N	N

Table 4_b
New Performances and Sponsored Rehearsals

This table describes all the opera productions by the English National Opera during the period of the data set. For each opera production, we describe whether it was a Sponsored Revival, a New Production or a Not-New Production; we provide the name of the donor; we state whether ENO staged a dress-rehearsal open to the public, a special Talk, Dinner or Lunch event with regards to this production; we give information on whether a new libretto has been developed.

Year	*Opera*	*Spons. Rev. /New Perf. /Not New P.*	*Sponsor*	*Dress Rehearsal*	*Meal /Talk*	*Libretto*
1997	La Traviata	N	Schroder	Y	N	N
	A Midsummer's Night Dream	NN	Not Specified	Y	N	N
	Don Quixote	NN	Not Specified	Y	N	N
	The Cunning Little Vixen	N	Not Specified	Y	N	N
	Rigoletto	N	Not Specified	Y	N	N
	Die Soldaten	N	Not Specified	Y	N	Y
	The Pearl Fishers	NN	Not Specified	Y	N	N
	The Mikado	N	Not Specified	Y	N	N
	The Italian Girl in Algiers	N	Not Specified	Y	N	N
	Der Rosenkavalier	N	Not Specified	Y	N	N
	Figaro's Wedding	N	Not Specified	Y	N	N
	Orpheus and Eurydice	N	Friends of ENO	Y	N	N
	Madam Butterfly	N	Not Specified	Y	N	N
	The Damnation of Faust	N	Not Specified	Y	N	N
	Ariadne on Naxos	NN	Not Specified	Y	N	N
	Carmen	NN	Not Specified	Y	N	Y
	L'allegro	N	Not Specified	Y	N	Y
	Dr. Ox's Experiment	N	ENO/BBC Arts Council	Y	N	N
	Don Pasquale	N	Not Specified	Y	N	Y
1998	Tosca	N	Not Specified	Y	N	N
	The Flying Dutchman	N	Not Specified	Y	N	Y
	The Mikado	NN	Not Specified	Y	N	N
	Cosí Fan Tutte	NN	Not Specified	Y	N	N
	Twice Through Heart	N	Friends of ENO	Y	Y	Y
	The Magic Flûte	NN	Not Specified	Y	Y	N
	Falstaff	N	Not Specified	Y	Y	Y
	Eugene Onegin	NN	Not Specified	Y	Y	N
	The Elixir of Love	N	Mr. and Mrs. P.I. Espnham	Y	Y	Y
	Xerxes	NN	Not Specified	Y	Y	N
	The Tales of Hoffman	N	Idlewild Trust /Leche Trust	Y	Y	N
	La Bohéme	NN	Not Specified	Y	Y	N
	Puccini's Trittico	N	Not Specified	Y	Y	Y
	The Fairy Queen	NN	Not Specified	Y	Y	N
	Manon	N	Not Specified	Y	Y	Y
	Carmen	NN	Not Specified	Y	Y	N
	Doctor Ox's Experiment	N	Mr. and Mrs. P.I. Espnham	Y	Y	Y
	Falstaff	N	Not Specified	Y	N	N
1999	Rusalka	NN	Not Specified	Y	N	N
	Otello	N	IIR Group	Y	Y	Y
	Madam Butterfly	NN	Not Specified	Y	Y	N
	Mary Stuart	N	Not Specified	Y	Y	Y
	Hansel and Gretel	NN	Not Specified	Y	Y	N
	Boris Gudonov	N	Friends of ENO	Y	Y	Y
	The Barber of Seville	NN	Not Specified	Y	Y	N
	La Traviata	NN	Friends of ENO	Y	Y	N
	Parsifal	N	A Syndicate of Donors	Y	Y	Y
	Orpheus and Eurydice	SR	Geoffrey Hughes Charitable Trust	Y	Y	N
	Maphistopheles	N	Mr. Gerard Arnhald	Y	Y	Y
	Salomé	N	Not Specified	Y	Y	N
	Semele	N	Nicholas and Judith Goodison	Y	Y	Y
	Carmen	NN	Peter Borender	Y	Y	N
	The Carmelites	N	Not Specified	Y	Y	Y
	Rigoletto	NN	Friends of ENO	Y	Y	N

Table 5

GENERAL DESCRIPTION OF THE DATA SET

This table presents summary statistics of the data set. Panel A focuses on the cross-sectional characteristics of the average annual expenditure of each individual during an opera season; panel B focuses on the number of tickets bought; panel C focuses on the average price per seat. To avoid the effect of individuals acting as agents, we restrict the analysis to individuals buying at most 6 tickets for the same event. The unit of measure of the price per seat and average annual expenditure is UK pound sterlings.

Event	*# Obs*	*Mean*	*Median*	*Std. Dev.*
Annual Gift Amount:		28.21	20	41
PANEL A: **Average Annual Expenditure**				
Donors:				
Total Expenditure	36,098	228	150	240
Not New Perf		114	72	143
New Perf		114	75	143
Non Donors:				
Total Expenditure	284,451	83	56	98
Not New Perf		51.20	36	67
New Perf		31.77	9	61
PANEL B: **Number of Tickets Bought**				
Donors:				
Total Attendance	36,098	8.45	6	8.83
Not New Perf		4.28	2	5.24
New Perf		4.17	2	4.97
Dress Rehearsal		0.58	0	2.44
Non Donors:				
Total Attendance	284,451	3.58	2	4.34
Not New		2.18	2	2.83
New		1.39	0	2.50
PANEL C: **Average Price Per Seat**				
Donors:				
Total Attendance	36,098	29.39	28.6	12.44
Not New Perf		28.73	27.64	12.26
New Perf		29.10	28	12.51
Donors:				
Total Attendance	284,451	25.28	25	13.63
Not New Perf		25.98	25	13.12
New Perf		25.46	25	13.25

Table 6

ATTENDANCE FOR CHEAP AND EXPENSIVE TICKETS

This table presents summary statistics of the cross-sectional characteristics of the average attendance during an opera season and of the gift amounts. The dataset is stratified in two subsamples. The "cheap" ticket subsample is based on those individuals spending on average an amount which is in the *bottom three deciles* of the distribution of prices per seat, i.e. UKP 17. The "expensive" ticket subsample is based on those individuals spending on average an amount which is in the *top three deciles* of the distribution of prices per seat, i.e. UKP 33. To avoid the effect of individuals acting as agents, we restrict the analysis to individuals buying at most 6 tickets for the same event. The unit of measure of the price per seat is UK pound sterlings.

Event	*# Obs*	*Mean*	*Median*	*Std. Dev*
Annual Gift Amount:	17,102	33.27	20	47.33
PANEL A: **Expensive Tickets**				
Donors:				
Total Attendance	17,102	8.20	6	8.23
Not New Perf		4.08	3	4.84
New Perf		4.21	4	4.81
Dress Rehearsal		0.40	0	1.90
Non Donors:				
Total Attendance	87,236	3.56	2	3.87
Not New Perf		2.14	2	2.52
New Perf		1.41	2	2.39
PANEL B: **Cheap Tickets**				
Annual Gift Amount:	8,426	25.82	19	34.50
Donors:				
Total Attendance	8,426	11.73	8	11.46
Not New Perf		6.04	4	6.74
New Perf		5.69	4	6.23
Dress Rehearsal		0.85	0	3.06
Non Donors:				
Total Attendance	82,928	4.26	2	5.54
Not New Perf		2.54	2	3.47
New Perf		1.73	2	3.02

Table 7
GENERAL DESCRIPTION OF LOW AND HIGH INCOME SUBSETS

This table presents summary statistics for the subset of the low income individuals. Low income is defined as the bottom 30% of the distribution of the income. High income is defined as the top 30% of the distribution of the income. In order to avoid the effect of individuals acting as agents, we restrict the analysis to the attendance of individuals buying at most 6 tickets for the same performance and for the same event. The unit of measure of the price per seat is UKP. Each account is treated individually over time.

	# obs	*Mean*	*Median*	*Std. Dev*
PANEL A: **Low Income Subsample**				
Gift Amount	8,605	18.46	15	13.47
Average Annual Expenditure				
Donors				
Total Expenditure	8,605	200.57	134	214.59
Not New Perf		107.30	72	131.63
New Perf		93.27	54	123.54
Non Donors				
Total Expenditure	60,638	78.21	54	89.53
Not New Perf		48.94	35	63.62
New Perf		29.27	0	55.09
Number of Attendances				
Donors				
Total Expenditure	8,605	8.16	5	8.84
Not New Perf		4.40	3	5.38
New Perf		3.76	2	4.87
Dress Rehearsals		0.37	0	1.99
Non Donors				
Total Expenditure	60,638	3.57	2	4.17
Not New Perf		2.21	2	2.81
New Perf		1.36	0	2.41
PANEL B: **High Income Subsample**				
Gift Amount	10,325	20.81	20	13.76
Average Annual Expenditure				
Donors				
Total Expenditure	10,325	258.71	170	269.07
Not New Perf		118.82	79	151.57
New Perf		139.89	90	163.48
Non Donors				
Total Expenditure	56,906	105.21	74	125.42
Not New Perf		62.22	45	82.72
New Perf		42.98	0	77
Number of Attendances				
Donors				
Total Attendance	10,325	8.71	6	8.87
Not New Perf		4.04	2	5.00
New Perf		4.67	3	5.15
Dress Rehearsals		0.80	0	2.85
Non Donors				
Total Attendance	56,906	3.90	2	4.59
Not New Perf		2.28	2	2.88
New Perf		1.62	0	2.72

Table 8
PROBIT REGRESSIONS PROBABILITIES:
NUMBER OF PERFORMANCES

This table reports the results of the univariate and multivariate Probit. The sample excludes the donations which are in terms of size in the top 2% decile. The subset of "cheap" and "expensive" tickets are respectively the bottom and top three deciles of the distributions of individuals in terms of the average price of the tickets purchased. We do not considers those individuals that purchased more than 6 tickets for the same event. Huber-White robust standard errors are reported under the estimated coefficients. A single star stands for statistical significance at the 5% confidence level, while a double star stands for statistical significance at the 1% confidence level.

Overall Sample

	Const	*Total Perf.*	$\frac{NewPerf}{Total\ Perf}$	*Not New*	*New*	*Dress Re*	*Spec*	*Income*	R^2
Being a Donor	−2.26			0.0730				0.0154	0.06
	0.02**			0.0009**				0.0008	
Being a Donor	−2.23			0.0341	0.0799			0.0117	0.11
	0.02**			0.0011**	0.0012**			0.0006**	
Being a Donor	−2.24			0.0341	0.0799	0.1851		0.0093	0.16
	0.02**			0.0011**	0.0012**	0.0030**		0.0009**	
Being a Donor	−2.24			0.0341	0.0772	0.1601	0.2034	0.0093	0.17
	0.02**			0.0011**	0.0012**	0.0031**	0.0082**	0.0009**	
Being a Donor	−2.29	0.0501						0.0130	0.10
	0.02**	0.0005**						0.0008**	
Being a Donor	−2.41	0.0556	0.3195					0.0120	0.12
	0.02**	0.0005**	0.0110**					0.0008**	
Being a Donor	−2.38	0.0557	0.2839			0.1835		0.0096	0.16
	0.02**	0.0005**	0.0114**			0.0030**		0.0009**	
Being a Donor	−2.37	0.0545	0.2753			0.1580	0.2063	0.0095	0.17
	0.02**	0.0005**	0.0114**			0.0031**	0.0082**	0.0009**	

Cheap Seats Subsample

	Const	*Total Perf.*	$\frac{NewPerf}{Total\ Perf}$	*Not New*	*New*	*Dress Re*	*Spec*	*Income*	R^2
Being a Donor	−2.42			0.0673				0.0161	0.09
	0.05**			0.0014**				0.0018**	
Being a Donor	−2.40			0.0300	0.0667			0.0121	0.14
	0.05**			0.0019**	0.0020**			0.0019**	
Being a Donor	−2.37			0.0328	0.0646	0.1663		0.0082	0.20
	0.05**			0.0019**	0.0021**	0.0046**		0.0019**	
Being a Donor	−2.37			0.0329	0.0616	0.1426	0.1733	0.0082	0.21
	0.05**			0.0019**	0.0021**	0.0048**	0.0117**	0.0019**	
Being a Donor	−2.43	0.0472						0.0134	0.13
	0.05**	0.0008**						0.0018**	
Being a Donor	−2.54	0.0471	0.2782					0.0124	0.14
	0.05**	0.0008**	0.0242**					0.0019**	
Being a Donor	−2.48	0.0476	0.2189			0.1648		0.0086	0.20
	0.05**	0.0008**	0.0254**			0.0046**		0.0019**	
Being a Donor	−2.47	0.0462	0.2073			0.1407	0.1757	0.0085	0.21
	0.05**	0.0009**	0.0255**			0.0049**	0.0117**	0.0019**	

Expensive Seats Subsample

	Const	*Total Perf.*	$\frac{NewPerf}{Total\ Perf}$	*Not New.*	*New*	*Dress Re*	*Spec*	*Income*	R^2
Being a Donor	−1.79			0.0845				0.0060	0.06
	0.03**			0.0016**				0.0012	
Being a Donor	−1.81			0.0402	0.0947			0.0016	0.12
	0.03**			0.0018**	0.0018**			0.0012**	
Being a Donor	−1.80			0.0417	0.0920	0.2081		−0.0001	0.16
	0.03**			0.0018**	0.0018**	0.0061**		0.0010	
Being a Donor	−1.80			0.0416	0.0892	0.1782	0.2351	−0.0001	0.16
	0.04**			0.0018**	0.0018**	0.0063**	0.0151**	0.0012	
Being a Donor	−1.85	0.0676						0.0027	0.11
	0.03**	0.0009**						0.0009**	
Being a Donor	−1.97	0.0668	0.3468					0.0017	0.13
	0.04**	0.0009**	0.0169**					0.0012	
Being a Donor	−1.95	0.0663	0.3180			0.2061		−0.0001	0.16
	0.04**	0.0009**	0.0172**			0.0061**		0.0010	
Being a Donor	−1.94	0.0648	0.3099			0.1759	0.2391	−0.0001	0.16
	0.04**	0.0009**	0.0172**			0.0063**	0.0152**	0.0012	

Table 9
IV Probit Regressions Probabilities:
Number of Performances

This table reports the results of the Instrumental Variable Probit. *Total Perf.* are the sum of *New* and *Not New* Performances. $\frac{New\ Perf}{Total\ Perf}$ is the logarithm of one plus the percentage of New Performances attended with respect to the Total Performances attended. *Spec* are the special events attended. *Dress Re* are the Dress Rehearsals. The set of instruments for the Dress Rehearsals and Special Events are their lagged value, the total performances attended and the level of income. All the other explanatory variables are not instrumented. The sample include both donors and non-donors. The explanatory variables are measured both in terms of the number of performances and of the expenditure (UK sterlings). The sample excludes the donations which are in terms of size in the top 2% decile. We do not considers those individuals that purchased more than 6 tickets for the same event. The subset of "cheap" and "expensive" tickets are respectively the bottom and top three deciles of the distributions of individuals in terms of the average price of the tickets purchased. Huber-White robust standard errors are reported under the estimated coefficients. A single star stands for statistical significance at the 5% confidence level, while a double star stands for statistical significance at the 1% confidence level.

Overall Sample

	Const	*Total Perf.*	$\frac{NewPerf}{Total\ Perf}$	*Not New*	*New*	*Dress Re*	*Spec*	*Income*	R^2
Being a Donor	−2.24			0.0312	0.0845	0.2105	0.2012	0.0092	0.17
	0.02**			0.0012**	0.0011**	0.0037**	0.0086**	0.0009**	
Being a Donor	−2.37	0.0512	0.2937			0.2065	0.1998	0.0095	0.17
	0.02**	0.0006**	0.0112**			0.0035**	0.0086**	0.0009**	

Cheap Seats Subsample

	Const	*Total Perf.*	$\frac{NewPerf}{Total\ Perf}$	*Not New*	*New*	*Dress Re*	*Spec*	*Income*	R^2
Being a Donor	−2.37			0.0534	0.0601	0.2194	0.1733	0.0082	0.21
	0.05**			0.0021**	0.0023**	0.0041**	0.0109**	0.0021**	
Being a Donor	−2.47	0.0462	0.1821			0.2018	0.1757	0.0085	0.21
	0.05**	0.0009**	0.0251**			0.0044**	0.0109**	0.0016**	

Expensive Seats Subsample

	Const	*Total Perf.*	$\frac{NewPerf}{Total\ Perf}$	*Not New.*	*New*	*Dress Re*	*Spec*	*Income*	R^2
Being a Donor	−1.80			0.0184	0.1170	0.1559	0.2312	−0.0001	0.17
	0.04**			0.0017**	0.0015**	0.0075**	0.0150**	0.0012	
Being a Donor	−1.94	0.0648	0.3478			0.1593	0.2345	−0.0001	0.17
	0.04**	0.0009**	0.0167**			0.0072**	0.0159**	0.0012	

Table 10
PROBIT REGRESSIONS PROBABILITIES:
EXPENDITURE

This table reports the results of multivariate Probit regressions, for high and low income individuals. Low income is defined as the bottom 30% of the distribution of the income. High income is defined as the top 30% of the distribution of the income. In order to avoid the effect of individuals acting as agents, we restrict the analysis to the attendance of individuals buying at most 6 tickets for the same performance and for the same event. The unit of measure of the price per seat is UKP. Each account is treated individually over time. The sample excludes the donations which are in terms of size in the top 2% decile. The explanatory variables are the dollar valued expenditure in different types of performances.

Overall Sample

	Const	*Total Perf.*	$\frac{NewPerf}{Total\ Perf}$	*Not New*	*New*	*Dress Re*	*Spec*	*Income*	R^2
Being a Donor	−2.15			0.0031				0.0107	0.08
	0.02**			0.0001**				0.0008	
Being a Donor	−2.11			0.0017	0.0032			0.0049	0.14
	0.02**			0.0001**	0.0001*			0.0008**	
Being a Donor	−2.09			0.0018	0.0031	0.1905		0.0022	0.18
	0.02**			0.0001**	0.0001**	0.0029**		0.0008**	
Being a Donor	−2.10			0.0018	0.0031	0.1722	0.0246	0.0023	0.19
	0.02**			0.0001**	0.0001**	0.0031**	0.0013**	0.0009**	
Being a Donor	−2.14	0.0024						0.0058	0.13
	0.02**	0.0001**						0.0008**	
Being a Donor	−2.25	0.0024	0.3110					0.0048	0.14
	0.02**	0.0001**	0.0111**					0.0008**	
Being a Donor	−2.21	0.0024	0.2731			0.1886		0.0021	0.19
	0.02**	0.0001**	0.0115**			0.0030**		0.0009**	
Being a Donor	−2.21	0.0024	0.2679			0.1700	0.0248	0.0022	0.19
	0.02**	0.0001	0.0115**			0.0031	0.0013**	0.0009**	

Low Income Subsample

	Const	*Total Perf.*	$\frac{NewPerf}{Total\ Perf}$	*Not New*	*New*	*Dress Re*	*Spec*	*Income*	R^2
Being a Donor	−2.34			0.0035				0.0157	0.08
	0.08**			0.0001**				0.0041**	
Being a Donor	−2.29			0.0023	0.0032			0.0095	0.13
	0.08**			0.0001**	0.0001**			0.0042	
Being a Donor	−2.28			0.0024	0.0031	0.1803		0.0073	0.16
	0.08**			0.0001**	0.0001**	0.0070**		0.0042	
Being a Donor	−2.27			0.0023	0.0030	0.1609	0.0340	0.0070	0.17
	0.09**			0.0001**	0.0001**	0.0073**	0.0031**	0.0042	
Being a Donor	−2.31	0.0027						0.0101	0.13
	0.09**	0.0001**						0.0042*	
Being a Donor	−2.38	0.0027	0.2334					0.0087	0.14
	0.09**	0.0001**	0.0219**					0.0042*	
Being a Donor	−2.35	0.0027	0.2101			0.2266		0.0066	0.16
	0.09**	0.0001	0.0223**			0.1773**		0.0035*	
Being a Donor	−2.35	0.0027	0.2063			0.1578	0.0338	0.0063	0.17
	0.09**	0.0001**	0.0224**			0.0073**	0.0031**	0.0027**	

High Income Subsample

	Const	*Total Perf.*	$\frac{NewPerf}{Total\ Perf}$	*Not New.*	*New*	*Dress Re*	*Spec*	*Income*	R^2
Being a Donor	−1.72			0.0026				−0.0013	0.06
	0.08**			0.0001**				0.0025	
Being a Donor	−1.74			0.0010	0.0032			−0.0048	0.14
	0.08**			0.0001**	0.0001**			0.0026	
Being a Donor	−1.81			0.0012	0.0031	0.1768		−0.0050	0.19
	0.09**			0.0001**	0.0001**	0.0045**		(0.0020**	
Being a Donor	−1.82			0.0012	0.0031	0.1598	0.0287	−0.0046	0.20
	0.09**			0.0001**	0.0001**	0.0047**	0.0023**	0.0018**	
Being a Donor	−1.75	0.0021						−0.0047	0.12
	0.08**	0.0001**						0.0015**	
Being a Donor	−1.96	0.0021	0.3985					−0.0041	0.14
	0.08**	0.0001**	0.0197**					0.0015**	
Being a Donor	−2.00	0.0021	0.3538			0.1755		−0.0044	0.19
	0.09**	0.0001**	0.0204**			0.0045**		0.0016**	
Being a Donor	−2.01	0.0021	0.3477			0.1579	0.0290	−0.0041	0.20
	0.09**	0.0001**	0.0204**			0.0047**	0.0023**	0.0016**	

Table 11 Full Information 3SLS Estimation
(Number of Performances)

This table reports the results of the estimation of the system of two equations obtained as solution of the model. The system is jointly estimated using Full Information 3SLS . The two endogenous variables are the Gift Amount and the Total Expenditure. *Total Perf.* are the sum of *New* and *Not New* Performances attended. $\frac{New\ Perf}{Total\ Perf}$ is the logarithm of one plus the percentage of New Performances attended over Total Performances. *Spec* are the special events attended. *Dress Re* are the Dress Rehearsals. Since dress-rehearsals can be attended only if one donates more than UKP 25, for the two subsamples in which the amount donated is less than UKP 25 the estimation includes a projection of the dress-rehearsals on a set of instrumental variables. These instrumental variables are the lagged number of dress-rehearsals, the total number of performances, the percentage of new performances and income. The explanatory variables are measured in units of performances attended. The sample excludes the donations which are, in terms of size, in the top 2% decile. We do not considers those individuals that purchased more than 6 tickets for the same event. Standard errors are reported in parenthesis.

Overall Sample

	Const	*Total Perf.*	*Gift Amount*	$\frac{NewPerf}{Total\ Perf}$	*Spec*	*Dress Re*	*Income*	R^2
Gift Amount ≥ 0	−4.34	1.53		1.07	3.56	1.88	0.03	0.07
	(0.18)**	(0.01)**		(0.08)**	(0.08)**	(0.04)**	(0.006)**	
Total Expenditure	3.11		−0.15	0.26			0.02	0.03
	(0.06)**		(0.02)**	(0.03)**			(0.002)**	
Gift Amount > 0	5.14	1.62		1.20	2.86	0.72	0.28	0.03
	(1.16)**	(0.02)**		(0.59)*	(0.19)**	(0.09)**	(0.04)**	
Total Expenditure	6.12		−0.08	0.64			0.02	0.03
	(0.26)**		(0.04)*	(0.13)**			(0.01)	
Gift Amount > 25	36.96	1.08		3.20	2.03	−1.04	0.66	0.05
	(3.41)**	(0.06)**		(1.83)*	(0.35)**	(0.21)**	(0.12)**	
Total Expenditure	8.79		−0.04	1.27			0.03	0.04
	(0.62)**		(0.03)	(0.33)**			(0.02)	

Cheap Seats Subsample

	Const	*Total Perf.*	*Gift Amount*	$\frac{NewPerf}{Total\ Perf}$	*Spec*	*Dress Re*	*Income*	R^2
Gift Amount ≥ 0	−3.49	1.04		0.42	2.97	1.59	0.02	0.10
	(0.28)**	(0.01)**		(0.12)**	(0.09)**	(0.05)**	(0.01)*	
Total Expenditure	3.85		−0.25	0.29			0.02	0.05
	(0.14)**		(0.06)**	(0.06)**			(0.005)**	
Gift Amount > 0	2.70	1.24		−0.64	2.45	0.80	0.28	0.05
	(2.13)	(0.03)**		(1.17)	(0.24)**	(0.13)**	(0.08)**	
Total Expenditure	9.29		−0.14	1.04			−0.02	0.05
	(0.71)**		(0.05)**	(0.39)**			(0.02)	
Gift Amount > 25	22.81	0.98		−0.51	2.12	−0.31	0.84	0.05
	(6.48)**	(0.08)**		(3.95)	(0.46)**	(0.32)	(0.24)**	
Total Expenditure	13.77		−0.06	0.47			−0.07	0.05
	(1.72)**		(0.03)*	(1.06)			(0.06)	

Expensive Seats Subsample

	Const	*Total Perf.*	*Gift Amount*	$\frac{NewPerf}{Total\ Perf}$	*Spec*	*Dress Re*	*Income*	R^2
Gift Amount ≥ 0	−3.42	2.33		1.63	4.06	2.00	−0.07	0.06
	(0.43)**	(0.01)**		(0.20)**	(0.17)**	(0.09)**	(0.01)**	
Total Expenditure	2.60		−0.02	0.36			0.04	0.04
	(0.10)**		(0.03)	(0.04)**			(0.003)**	
Gift Amount > 0	10.40	2.25		1.85	3.46	0.68	0.07	0.05
	(1.97)**	(0.04)**		(1.00)*	(0.34)**	(0.20)**	(0.07)	
Total Expenditure	4.49		0.02	0.43			0.06	0.04
	(0.35)**		(0.02)	(0.18)**			(0.01)**	
Gift Amount > 25	50.12	1.45		5.25	2.83	−1.34	0.24	0.04
	(5.01)**	(0.09)**		(2.75)*	(0.58)**	(0.40)**	(0.17)	
Total Expenditure	6.25		0.04	1.07			0.09	0.04
	(0.79)**		(0.03)	(0.43)**			(0.03)**	

Table 12 Full Information 3SLS Estimation (Expenditure)

This table reports the results of the estimation of the system of two equations obtained as solution of the model. The system is jointly estimated using Full Information 3SLS. The two endogenous variables are the Gift Amount and the Total Expenditure. *Total Perf.* are the sum of *New* and *Not New* Performances attended. $\frac{New\ Perf}{Total\ Perf}$ is the logarithm of one plus the percentage of New Performances attended over Total Performances. *Spec* are the special events attended. *Dress Re* are the Dress Rehearsals. Since dress-rehearsals can be attended only if one donates more than UKP 25, for the two subsamples in which the amount donated is less than UKP 25 the estimation includes a projection of the dress-rehearsals on a set of instrumental variables. These instrumental variables are the lagged number of dress-rehearsals, the total number of performances, the percentage of new performances and income. The explanatory variables are measured in the dollar value of the expenditure to attend the performances. The sample excludes the donations which are, in terms of size, in the top 2% decile. We do not considers those individuals that purchased more than 6 tickets for the same event. Standard errors are reported in parenthesis. * (**) gives the 5% (1%) significance.

Overall Sample

	Const	*Total Exp*	*Gift Amount*	$\frac{NewPerf\ Exp}{Total\ Perf\ Exp}$	*Spec Exp*	*Dress Re*	*Income*	R^2
Gift Amount ≥ 0	−1.28	0.06		1.15	0.53	2.04	−0.07	0.11
	(0.18)**	(0.001)**		(0.08)**	(0.01)**	(0.04)**	(0.006)**	
Total Expenditure	3.07		−0.14	0.27			0.02	0.04
	(0.06)**		(0.04)**	(0.02)**			(0.002)**	
Gift Amount > 0	10.99	0.06		0.76	0.46	0.89	0.06	0.03
	(1.14)**	(0.001)**		(0.58)	(0.03)**	(0.09)**	(0.04)	
Total Expenditure	6.10		−0.07	0.63			0.02	0.03
	(0.26)**		(0.01)**	(0.13)**			(0.01)**	
Gift Amount > 25	40.82	0.05		2.74	0.40	−0.94	0.41	0.05
	(3.34)**	(0.002)**		(1.80)	(0.06)**	(0.20)**	(0.12)**	
Total Expenditure	8.52		−0.04	1.27			0.03	0.04
	(0.62)**		(0.04)	(0.33)**			(0.03)	

Cheap Seats Subsample

	Const	*Total Perf.*	*Gift Amount*	$\frac{NewPerf}{Total\ Perf}$	*Spec*	*Dress Re*	*Income*	R^2
Gift Amount ≥ 0	−2.01	0.06		0.37	0.41	1.63	0.01	0.14
	(0.27)**	(0.001)**		(0.12)**	(0.02)**	(0.05)**	(0.01)	
Total Expenditure	3.84		−0.25	0.32			0.02	0.05
	(0.14)**		(0.04)**	(0.06)**			(0.005)**	
Gift Amount > 0	7.15	0.07		−1.81	0.34	0.74	0.25	0.05
	(2.10)**	(0.002)**		(1.14)	(0.04)**	(0.13)**	(0.08)**	
Total Expenditure	9.32		−0.13	1.00			0.003	0.05
	(0.71)**		(0.04)**	(0.39)**			(0.03)**	
Gift Amount > 25	27.37	0.05		−2.66	0.36	−0.51	0.83	0.05
	(6.37)**	(0.004)**		(3.85)	(0.08)**	(0.32)*	(0.24)**	
Total Expenditure	13.74		−0.05	0.49			−0.07	0.05
	(1.74)**		(0.04)	(0.60)			(0.06)	

Expensive Seats Subsample

	Const	*Total Perf.*	*Gift Amount*	$\frac{NewPerf}{Total\ Perf}$	*Spec*	*Dress Re*	*Income*	R^2
Gift Amount > 0	−3.04	0.07		1.71	0.59	2.23	−0.13	0.07
	(0.43)**	(0.001)**		(0.19)**	(0.03)**	(0.10)**	(0.01)**	
Total Expenditure	2.60		−0.04	0.37			0.04	0.04
	(0.10)**		(0.01)**	(0.04)**			(0.003)**	
Gift Amount > 0	12.78	0.06		1.37	0.56	0.84	−0.05	0.05
	(1.97)**	(0.001)**		(0.99)	(0.05)**	(0.20)**	(0.07)	
Total Expenditure	4.51		0.01	0.39			0.06	0.04
	(0.35)**		(0.02)	(0.17)*			(0.01)**	
Gift Amount > 25	52.90	0.04		4.04	0.56	−1.44	0.12	0.04
	(4.99)**	(0.03)		(2.72)**	(0.09)**	(0.41)**	(0.17)	
Total Expenditure	6.26		0.03	1.05			0.09	0.04
	(0.79)**		(0.02)	(0.43)**			(0.03)**	

Table 13

IV Regressions for sample of Donors ≥ 25
Expenditure and Dummies

This table reports the results of the multivariate regressions of the size of the donations onto a set of explanatory variables. *Total Perf.* are the sum of *New* and *Not New* Performances. $\frac{New\ Perf}{Total\ Perf}$ is the logarith of one plus the percentage of New Performances attended with respect to the Total Performances attended. *Spec* are the special events attended. *Dress Re* are the Dress Rehearsals. The sample include both donors and non-donors. The explanatory variables are measured in terms of the expenditure (UK sterlings). The sample excludes the donations which are in terms of size in the top 2% decile. We do not considers those individuals that purchased more than 6 tickets for the same event. P-values are reported in parenthesis.

	Overall Sample	*Cheap Tickets*	*Expensive Tickets*
const	1.4647 (26%)	0.4634 (37%)	3.8550 (57%)
I_{96}	−3.9090 (26%)	−2.9485 (34%)	−5.9573 (57%)
I_{97}	−4.0637 (26%)	−3.1934 (35%)	−5.9043 (56%)
I_{98}	−1.5679 (26%)	−0.6637 (36%)	−2.2793 (56%)
I_{99}	−3.5703 (25%)	−3.2946 (37%)	−5.1476 (55%)
Tot Perf Expenditure	0.0322 (0.04%)	0.0338 (0.07%)	0.0301 (0.07%)
$ln\left(\frac{Exp\ New}{Exp\ Tot\ Perf}\right)$	4.0629 (0.0052%)	2.4033 (0.0041)	6.1611 (0.0066%)
Cumulative Attendance	0.0538 (4.93%)	0.0457 (5.74%)	0.0968 (4.77%)
Spec Perf	0.4932 (2.07%)	0.4290 (2.42%)	0.6537 (4.22%)
Dress Rehearsals	0.2848 (0.96%)	0.2766 (1.27%)	0.2721 (2.27%)
Income	0.0901 (0.70%)	0.1017 (1.02%)	0.0796 (1.42%)
R^2	0.12	0.16	0.10

Table 14
EXCESS DONATION AND CONSUMPTION PATTERN

This table shows results of regression of excess donations, defined as the difference between the actual donation and the threshold level for each donation class. There are four main donation classes, Friends, Silver Friends, Bronze Friends and Gold Friends, with donation thresholds equal to 25, 50, 100 and 175 respectively. $\frac{New\ Prod}{Total\ Attendance}$ is the percentage of New Production attended with respect to the Total Attendance in both new and regular productions. $I_{New_i > \overline{New}}$ is a dummy variable that takes a value equal to one if the individual goes to average number of New Productions higher than the average of the population. P-values are shown in parenthesis.

		EXOGENOUS VARIABLES:				
Endogenous Variable	*Const*	*Number of Special Events*	*Number of New Prod*	$\frac{New}{Total}$	$I_{New_i > \overline{New}}$	*Number of Dress Re*
"Friends" $£25 \leq$ *Donation* $< £50$	34.56 (0.00)	0.1382 (0.00)	0.0726 (0.00)			−0.0095 (0.56)
	34.92 (0.00)	0.1901 (0.00)		0.3511 (0.29)		−0.0642 (0.02)
	34.46 (0.00)	0.1404 (0.00)			0.6974 (0.00)	−0.0079 (0.00)
"Bronze Friends" $£50 \leq$ *Donation* $< £100$	67.45 (0.00)	−0.0484 (0.68)	0.0985 (0.01)			−0.1944 (0.00)
	68.01 (0.00)	−0.0130 (0.92)		0.2662 (0.83)		−0.1711 (0.00)
	67.34 (0.00)	−0.0397 (0.73)			0.9972 (0.02)	−0.2019 (0.00)
"Silver Friends" $£100 \leq$ *Donation* $< £175$	131.40 (0.00)	0.1061 (0.77)	−0.1442 (0.12)			−0.0535 (0.83)
	131.96 (0.00)	0.3846 (0.30)		−5.6000 (0.08)		−0.1982 (0.51)
	132.19 (0.00)	0.1273 (0.72)			−2.5872 (0.04)	−0.0699 (0.78)
"Gold Friends" *Donation* $\geq £175$	252.61 (0.00)	0.0758 (0.93)	0.2557 (0.24)			0.0393 (0.94)
	255.54 (0.00)	0.0262 (0.97)		−0.4717 (0.95)		−0.0687 (0.91)
	253.10 (0.00)	0.2067 (0.81)			1.1575 (0.69)	0.0599 (0.91)

Table 15
AVERAGE CONSUMPTION AT DIFFERENT TIMES

This table reports the average consumption around the first year of donation. We stratify the sample with respect to the event of donation and costruct four subsamples, depending on the sequence of donation events. "Before Donation" refers to the year before the individual made his first donation. "First Time Donors" refers to the year in which an individual becomes a donor. "Repeated Donors" refers to the second year of donation. "Interrupted Donors" refers to the year an existing donor stops donating. The sample includes the donors that are not in the top 2% decile of the population and those individuals who purchased more than 6 tickets for the same event.

	BEFORE DONATION	FIRST TIME DONORS	REPEATED DONORS	INTERRUPTED DONORS
New Productions	2.11	2.57	2.82	2.85
Not New Productions	3.16	2.69	2.42	2.98
Percentage New Prod.	40%	49%	54%	49%
New Productions Price	14.48	12.41	14.17	15.90
Not New Prod. Price	18.88	12.98	12.48	17.73
Dress Rehearsals	-	0.58	1.20	-
Special Events	-	0.08	0.15	-

Table 16
NEW AND INTERRUPTED DONORS

This table reports the results of regressions for those individuals that become donors for the first time and for the repeated donors. The variable $AvgPr$ is the average price paid during the season; DR are dress-rehearsals; $Dummy$ is a dummy variable: in Panel A, it takes the value of one if the individual is a donor at time t, i.e. if he started to donate; in Panel B it takes the value of one if the individual is *not* a donor at time t, i.e. if he stopped donating. In panel A we consider the sample of individuals who were not donor at time $t-1$; in panel B we consider the individuals who were donor at time $t-1$ and that either stopped donating or continued donating at time t. The sample excludes donors that are in the top 2% decile of the population and those individuals who purchased more than 6 tickets for the same event.

Panel A: Non Donors at time $t-1$

	$Const$	$Dummy$	$Income$	$DressR$	$Gift$	$AvgPrice(t-1)$	R^2
$AvgPr(t)$	10.93^{**} (0.1587)	-6.31^{**} (0.27)	0.0874^{**} (0.0055)	-0.6053^{**} (0.0614)	0.0290^{**} (0.0053)	0.64^{**} (0.0030)	0.37
$\Delta AvgPr(t)$	1.74^{**} (0.14)	-7.92^{**} (0.30)	0.0099 (0.0059)	-0.0176 (0.0662)	-0.0010 (0.0057)		0.02
$\Delta Exp(t)$	7.45^{**} (0.97)	-3.54 (2.02)	0.14^{**} (0.04)	-1.75^{**} (0.45)	0.07 (0.04)		0.02
$\frac{New\ Perf(t)}{Tot\ Perf(t)}$	0.4859^{**} (0.0031)	0.0422^{**} (0.0075)	-0.0004^{**} (0.0001)	0.0004 (0.0019)	0.0001 (0.0001)		0.02
$\Delta\frac{New\ Perf}{Tot\ Perf}(t)$	0.1067^{**} (0.0041)	0.0588^{**} (0.01)	-0.0018^{**} (0.0001)	-0.0096 (0.0027)	-0.0005^{**} (0.0002)		0.02
$\Delta\ (New + Not\ New)$	0.2299^{**} (0.0434)	0.1580 (0.0901)	0.0001 (0.002)	-0.1509^{**} (0.0041)	0.0035^{**} (0.0438)		0.01
$\Delta\ (New + Not\ New + DR)$	0.3120^{**} (0.0438)	0.2519^{**} (0.0901)	-0.0030 (0.0018)		0.0043^{**} (0.0017)		0.01

Panel B: Donors at time $t-1$

	$Const$	$Dummy$	$Income$	$DressR$	$Gift$	$AvgPrice(t-1)$	R^2
$AvgPr(t)$	18.32^{**} (0.36)	13.38^{**} (0.32)	0.2500^{**} (0.0088)	-0.7870^{**} (0.0313)	0.0888^{**} (0.0034)	0.50^{**} (0.004)	0.34
$\Delta AvgPr(t)$	10.20^{**} (0.40)	10.00^{**} (0.37)	-0.0099 (0.0098)	-0.1982^{**} (0.0354)	0.0180^{**} (0.0038)		0.02
$\Delta Exp(t)$	24.69^{**} (2.51)	23.98^{**} (2.27)	0.03^{**} (0.06)	-1.24^{**} (0.22)	0.26^{**} (0.02)		0.02
$\frac{New\ Perf(t)}{Tot\ Perf(t)}$	0.5312^{**} (0.0070)	-0.0208^{**} (0.0056)	0.0010^{**} (0.0002)	0.0058^{**} (0.0008)	0.0001 (0.0001)		0.02
$\Delta\frac{New\ Perf}{Tot\ Perf}(t)$	0.1176^{**} (0.0108)	-0.0142^{**} (0.0083)	-0.0015^{**} (0.0003)	0.0001^{**} (0.0012)	0.0002^{**} (0.0001)		0.02
$\Delta\ (New + Not\ New)$	0.5529^{**} (0.0926)	0.3834^{**} (0.0796)	-0.0029 (0.0022)	-0.0190^{**} (0.0088)	-0.0028^{**} (0.0008)		0.01
$\Delta\ (New + Not\ New + DR)$	0.5786^{**} (0.0988)	0.3341^{**} (0.0849)	-0.0001 (0.0023)		-0.0020^{**} (0.0008)		0.01

Table 17
LAGGED REGRESSIONS FOR DONORS t WHO CONTINUE TO DONATE AT $t+1$

This table reports the regressions of the gift amount at the time t of the donation onto different consumption choices in the year $t+1$, following the donation. This sample includes the donors who have donated for two consecutive years. The sample excludes the donors that are in the top 2% decile of the distribution of donations and those individuals who purchased more than 6 tickets for the same event.

	New Perf.	*Not New Perf.*	*Dress Rehears*	*Income*
	Number of Performances (Overall Sample)			
Gift Amount ≥ 0	0.64**	0.21*	2.01**	0.03
	(0.15)	(0.15)	(0.19)	(0.06)
	Number of Performances (Cheap Tickets)			
Gift Amount ≥ 0	0.06	0.03	2.31**	-0.10
	(0.35)	(0.30)	(0.25)	(0.14)
	Number of Performances (Expensive Tickets)			
Gift Amount ≥ 0	1.16**	0.66**	0.90**	0.04
	(0.31)	(0.31)	(0.34)	(0.10)
	Expenditure per Seat (Overall Sample)			
Gift Amount ≥ 0	0.23**	0.19**	2.25**	0.04
	(0.03)	(0.03)	(0.18)	(0.06)
	Expenditure per Seat (Cheap Tickets)			
Gift Amount ≥ 0	0.10	-0.36*	2.53**	0.03
	(0.19)	(0.18)	(0.21)	(0.10)
	Expenditure per Seat (Expensive Tickets)			
Gift Amount ≥ 0	0.24**	0.21**	1.40**	0.06
	(0.06)	(0.05)	(0.19)	(0.10)
	Number of Special Performances			
	Seats	Expenditure		Income
Gift Amount ≥ 0	-0.03	-0.12		0.56*
	(2.50)	(0.36)		(0.33)

Table 18
LAGGED REGRESSIONS FOR DONORS t WHO STOP DONATING AT $t+1$

This table reports the regressions of the gift amount at the time t of the donation onto different consumption choices in the year $t+1$, following the donation. This sample includes the donors who stop donating in the following year. The sample excludes the donors that are in the top 2% decile of the distribution of donations and those individuals who purchased more than 6 tickets for the same event.

	New Perf.	*Not New Perf.*	*Income*
	Number of Performances (Overall Sample)		
Gift Amount ≥ 0	0.23	0.10	0.05
	(0.28)	(0.28)	(0.07)
	Number of Performances (Cheap Tickets)		
Gift Amount ≥ 0	-0.41	0.60	-0.02
	(0.42)	(0.79)	(0.12)
	Number of Performances (Expensive Tickets)		
Gift Amount ≥ 0	1.59**	-0.05	0.19*
	(0.68)	(0.75)	(0.16)
	Expenditure per Seat (Overall Sample)		
Gift Amount ≥ 0	0.25**	0.24**	0.04
	(0.06)	(0.06)	(0.08)
	Expenditure per Seat (Cheap Tickets)		
Gift Amount ≥ 0	-0.20	0.41*	-0.05
	(0.26)	(0.27)	(0.12)
	Expenditure per Seat (Expensive Tickets)		
Gift Amount ≥ 0	0.31**	0.15*	0.22*
	(0.11)	(0.11)	(0.16)
	Number of Special Performances		
	Seats	Expenditure	Income
Gift Amount ≥ 0	0.83	-0.23	1.59**
	(1.43)	(0.53)	(0.37)