

The Organization of Social Enterprise: Transacting versus Giving

Finance Working Paper N° 987/2024
September 2026

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Economic Research and ECGI

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1 Introduction

Social enterprises pursue social goals through market activity ([Eldar, 2017, 2020](#)). The paper starts from a practical puzzle about organizational form. Commercial firms, often for-profits, sometimes do more than sell goods or services. They deliberately serve disadvantaged workers, farmers, borrowers, or consumers as part of a philanthropic mission. This is puzzling because philanthropy is usually associated with donations and nonprofits, not with profit-seeking firms. The puzzle is especially important in development settings, where effective assistance often requires information about beneficiaries’ heterogeneous abilities and needs that is difficult to observe before an organization works with them. The paper argues that the key is the transaction itself. By employing, buying from, lending to, or otherwise transacting with beneficiaries, a social enterprise can learn about beneficiaries and tailor assistance more effectively. This explains how a for-profit social enterprise can achieve maximal targeting quality precisely where philanthropic quality matters most.

The mechanism differs from the classic nonprofit theory of [Hansmann \(1980\)](#) and [Glaeser and Shleifer \(2001\)](#). In that literature, the central informational problem is usually between consumers or donors and the producer. Outsiders cannot observe product or service quality, so the nondistribution constraint helps commit the producer not to exploit them. The main problem here is different. The organization itself does not initially know beneficiaries’ abilities and needs. The first-order choice is therefore not legal form, but the way assistance is delivered.

The paper studies a distinction often obscured in broad discussions of social enterprise. Some organizations transfer subsidies to beneficiaries through giving, while others help beneficiaries through transactions with them. Giving can reach more beneficiaries, but assistance must be based on limited information. Transacting with beneficiaries can reveal performance, repayment, output, or other information that helps tailor assistance, but it is costly and limits scale. The most straightforward application in the model is a work-integration firm that can either fund outside training or hire and train disadvantaged workers inside the firm. A similar mechanism can operate when fair-trade organizations buy from low-income farmers or microfinance institutions lend to low-income borrowers ([Dragusanu et al., 2014](#); [Armendáriz and Morduch, 2010](#)). Through these relationships, the entrepreneur can learn how to tailor assistance to farmers’ or borrowers’ needs, rather than merely earn profits that she could donate personally.

Throughout the paper, “quality” refers to the quality of philanthropy in a narrow targeting sense, meaning the extent to which assistance is matched to beneficiaries’ needs, not product quality. This targeting-based definition focuses on a dimension of philanthropic

effectiveness that is particularly relevant to development missions such as expanding employment opportunities, raising productivity, and improving access to capital or essential goods. Unlike Glaeser and Shleifer (2001), where what is labeled quality is economically a one-dimensional quantity for which more is always better, this definition separates the number of beneficiaries assisted from how well they are assisted. This is why heterogeneity matters. If all beneficiaries need roughly the same assistance, giving based on averages works tolerably well. If beneficiaries differ substantially, average assistance is often too high for some beneficiaries and too low for others, so the value of learning through transactions rises.

Figure 1 organizes the four benchmark forms considered here along two dimensions, legal form and mode of assistance. An organization may be for-profit or nonprofit, and it may rely on giving or transacting. The contribution of the paper is to show how these two dimensions interact. When heterogeneity in beneficiaries' abilities and needs is high, transacting with beneficiaries is valuable because it generates information. When beneficiary heterogeneity is lower, the informational advantage of transacting is smaller and giving becomes more attractive.

The model has one entrepreneur who chooses legal form, total scale, and how many beneficiaries are served through giving rather than transactions. If the entrepreneur gives, assistance is based on the average beneficiary. If she transacts with a beneficiary, she can incur a measurement cost to learn that person's ability and tailor assistance. The timing is simple. Nature draws beneficiaries' abilities; the entrepreneur chooses legal form, scale, and the division between giving and transacting; the entrepreneur learns the abilities of beneficiaries with whom she transacts; finally the entrepreneur chooses disbursements and payoffs are realized.

This setup yields three main predictions. First, higher variance in beneficiaries' abilities and needs increases the value of transacting with beneficiaries and reduces reliance on giving. Second, and more importantly, the paper delivers a paradox. The for-profit form achieves maximal targeting quality when the need for high-quality philanthropy is greatest. When heterogeneity is high, transacting aligns profit and mission so strongly that the nonprofit constraint becomes unnecessary. Third, this for-profit commitment to quality is expressed through lower scale. Absent tax benefits, the entrepreneur serves fewer beneficiaries rather than expanding philanthropy through low-quality giving. This implication is also consistent with anecdotal evidence that social enterprises often remain relatively small.

The legal-form result is a consequence of this choice between giving and transacting. When beneficiary heterogeneity is low, a nonprofit can improve quality by weakening the entrepreneur's monetary incentive to underprovide assistance. When heterogeneity is high, however, transacting itself creates the information needed for tailored assistance and aligns

Figure 1: **A Taxonomy of Organizations**

	Giving	Transacting
For-Profits	Corporate Charity	For-profit Social Enterprises
Nonprofits	Donative Organizations	Nonprofit Social Enterprises

profit with mission. In that region, the nondistribution constraint becomes less important, and the entrepreneur chooses the for-profit form while serving fewer beneficiaries rather than expanding through low-quality giving. Thus, the paper’s main contribution is not simply that for-profits and nonprofits coexist. It is to identify a beneficiary-side information problem that can make transactions with beneficiaries an organizational solution to low-quality philanthropy.

The paper relates to influential models of socially oriented firms, including [Baron \(2007\)](#), [Besley and Ghatak \(2017\)](#), [de Bettignies and Robinson \(2018\)](#), and [Kaul and Luo \(2018\)](#). These models ask when firms will pursue a given social objective, emphasizing prosocial preferences, stakeholder demand, employee motivation, or productive advantages. They take the nature of the socially beneficial activity as known. This paper instead asks how an organization learns what effective assistance requires. In many development settings, beneficiaries’ needs are not known ex ante. Transactions with beneficiaries reveal that information and enable better targeting.

The final part of the paper studies certification. The key insight is that certification need not verify impact directly. Instead, it may verify a narrower and more realistic object, namely whether the firm actually transacts with a defined beneficiary group. This makes beneficiary transactions contractible and allows funding to be conditioned on them. Certification can thereby ease a scaling problem. When donors cannot observe the entrepreneur’s commitment to quality, they may limit support because they assign substantial probability to less committed entrepreneurs. When certified scale remains within the range in which the revenue benefit from measurement exceeds its cost, certification can help the enterprise

assist more beneficiaries through measured transactions without sacrificing targeting quality or requiring extremely costly beneficiary-by-beneficiary impact assessment. This intuition is consistent with institutions such as fair trade and community-development certification, which allow entrepreneurs to commit credibly to beneficiary transactions and, through them, to higher-quality philanthropy.

The rest of the paper proceeds as follows. [Section 2](#) presents the model and articulates the meaning of quality. [Section 3](#) analyzes the entrepreneur’s choice between giving and transacting, the tradeoff between scale and quality, the choice of legal form, and the donor’s decision. [Section 4](#) studies certification. [Section 5](#) summarizes the main results. [Appendix A](#) lists the notation, and [Appendix B](#) contains the proofs omitted from the main text. The separate Online Appendix contains extensions and illustrative examples.

2 Model

The model formalizes a simple targeting problem. An entrepreneur wants to assist disadvantaged beneficiaries, but she does not initially know how much assistance each beneficiary needs. She can help beneficiaries through giving, which can reach many people but must be based on imperfect information. Alternatively, she can transact with beneficiaries. These transactions create an opportunity to measure beneficiary-specific abilities and tailor assistance, but measurement is costly. The central tradeoff is therefore between scale and targeting.

There is one entrepreneur and a continuum of potential beneficiaries. Each beneficiary i has ability $a(i) \in [0, \bar{a}]$, where $\bar{a}$ is the ability of a standard worker. A lower $a(i)$ means that the beneficiary needs more assistance. In particular, the assistance needed to reach the standard-worker level is $\bar{a} - a(i)$. Abilities are drawn from a distribution with mean $\mathbb{E}(a)$ and variance $Var(a)$. The entrepreneur knows this distribution but does not initially observe individual abilities. Beneficiaries come from a fixed pool. Before transacting, the entrepreneur cannot distinguish their abilities, so she chooses how many beneficiaries to assist but cannot select them by type.

The entrepreneur chooses the total scale of philanthropy, denoted by n and measured by the number of beneficiaries the firm assists. Of these n beneficiaries, m are served through transactions with the firm and g are served through giving, so $n = m + g$. Because beneficiaries form a continuum, n , m , and g are masses; I refer to them as numbers throughout.

The entrepreneur also chooses legal form. Let v denote the share of the firm’s monetary payoff that the entrepreneur may appropriate personally. A for-profit has $v = 1$. A nonprofit has $v \in (0, 1)$, a reduced-form representation of the nondistribution constraint. The analysis

first solves the allocation problem for a fixed v and then compares legal forms.

The entrepreneur cares about the firm's net monetary payoff, P , and the targeting quality of its assistance, q , which measures how closely assistance matches beneficiaries' needs. Her utility is

$$U = vP + \gamma q, \quad (1)$$

where $\gamma > 0$ is her weight on effective assistance and captures altruism, reputational pressure, or both. The expressions for P and q are specified below.

For concreteness, the formal model uses a work-integration firm. The firm has a fixed number w of jobs. If it employs m disadvantaged beneficiaries, the remaining $w - m$ jobs are filled by standard workers, so $0 \leq m \leq w$.¹ Beneficiaries served through giving are assisted outside the firm and do not occupy these jobs.

The timing is:

- Before choices are made, nature draws beneficiary abilities. The entrepreneur observes their distribution but not the individual draws.
- At $t = 0$, the entrepreneur chooses legal form, total scale n , and its division between transactions (m) and giving ($g = n - m$).
- At $t = 1$, the entrepreneur may incur a cost to measure the abilities of beneficiaries with whom the firm transacts. She then chooses disbursements, and payoffs are realized.

The cost of measuring the abilities of m beneficiaries is $C(m)$. The cost function C is increasing, convex, and twice differentiable, with $C(0) = 0$.²

For targeting purposes, the key difference between giving and transacting is what the entrepreneur learns. A disbursement $d(i) \geq 0$ is assistance measured in units of ability. Each unit costs one and raises ability one-for-one up to $\bar{a}$. Thus, beneficiary i needs the tailored disbursement $\bar{a} - a(i)$. A smaller disbursement leaves the beneficiary below $\bar{a}$, while a larger disbursement is wasteful.

¹A similar structure applies to other beneficiary-facing firms. In a fair-trade application, w is the firm's fixed number of supplier relationships, m consists of low-income farmer-suppliers, and the remaining $w - m$ are standard suppliers; revenue depends on the farmers' productivity or input quality after assistance. In microfinance, w is lending capacity and revenue depends on borrowers' ability to repay. For a low-cost service provider, w is the fixed number of customers the firm serves, m consists of low-income customer-beneficiaries, and the remaining $w - m$ are standard customers; revenue depends on customers' ability to pay. In each application, transacting both produces revenue and reveals information relevant to tailoring assistance.

²As shown in [Online Appendix A.1](#), the analysis is robust to a linear cost function.

If the entrepreneur helps $g \geq 0$ beneficiaries through giving, she does not observe their individual abilities and chooses disbursals $d^g(i)$ based on the distribution of needs.³ If instead she serves m beneficiaries through transactions, paying $C(m)$ allows her to observe their abilities before choosing $d^m(i)$.

Let $r > 1$ denote the firm's revenue per unit of worker ability. If the firm employs only standard workers, revenue is $rw\bar{a}$. If it instead employs m disadvantaged beneficiaries, realized revenue is

$$R(a) = r(w - m)\bar{a} + r \int_0^m \min\{a(i) + d^m(i), \bar{a}\} di.$$

Thus, a unit of well-targeted assistance costs one but raises the firm's revenue by r , increasing its net monetary payoff by $r - 1 > 0$.

Donative funding depends on the firm's planned philanthropic scale. Let $D(n)$ be an increasing, concave, and twice-differentiable donation schedule, with $D(0) = 0$. The concavity of $D(n)$ captures donors' limited willingness to fund ever-larger scale. This support may come from external donors, consumer premia, concessionary capital or labor, or the entrepreneur herself. The schedule also captures the realistic case in which donors can observe scale more easily than they can assess the quality of disbursals ex ante (Charles and Kim, 2016; Coupet and Schehl, 2022). The entrepreneur takes the schedule $D(\cdot)$ as given.⁴ Section 3.4 later allows donors to care directly about expected quality.

The firm's realized net monetary payoff, P , equals realized revenue plus donative funding, less disbursals through the transaction and giving channels, and less measurement costs:

$$P = R(a) + D(n) - \int_0^m d^m(i) di - \int_0^g d^g(i) di - C(m).$$

Note that the expression for P treats the entrepreneur as incurring $C(m)$, the cost of measuring the abilities of all m beneficiaries with whom the firm transacts. I write the problem this way for simplicity. Lemma 2, discussed in Section 3.1, shows that this is without loss of generality. If the entrepreneur transacts with a beneficiary without measuring ability, she cannot tailor the disbursal. Assisting that beneficiary through giving therefore weakly dominates transacting without measurement because the beneficiary may not receive enough

³The model could in principle allow partial learning through giving, reflecting limited information acquired through diligence, research, or screening rather than repeated interaction. I abstract from that possibility because it would add complexity while providing limited additional insight into the paper's core mechanism.

⁴This reduced-form schedule is a tractable simplification of a fuller donor decision in which $U^D = Y - D(n) + F(n)$, where Y is donor wealth and $F(n)$ is an increasing, concave benefit from the number of beneficiaries assisted.

assistance to reach $\bar{a}$, reducing the firm's expected revenue.

Quality means targeting accuracy, not product quality. Formally,

$$q = - \int_0^m (d^m(i) - (\bar{a} - a(i)))^2 di - \int_0^g (d^g(i) - (\bar{a} - a(i)))^2 di.$$

Thus, $q \leq 0$, and higher q means less aggregate targeting error among the beneficiaries served. At any positive scale, $q = 0$ when every beneficiary receives exactly the assistance needed to reach $\bar{a}$ (that is, $d(i) = \bar{a} - a(i)$). The measure evaluates how accurately assistance is targeted, conditional on the beneficiaries served; it does not itself assign value to serving more beneficiaries. The quadratic loss treats over-provision and under-provision symmetrically and provides a tractable measure of targeting accuracy. Quality falls as a disbursal departs from the beneficiary's need.⁵

Because abilities are unknown at $t = 0$, the entrepreneur maximizes expected utility:

$$\max_{m, g, d^m, d^g} v\mathbb{E}[P] + \gamma\mathbb{E}[q] \quad \text{s.t.} \quad n = m + g, \quad 0 \leq m \leq w, \quad g \geq 0, \quad d^m(i), d^g(i) \geq 0. \quad (2)$$

The model's central alignment is now apparent. For a beneficiary the entrepreneur assists through giving, she must choose $d^g(i)$ without knowing $a(i)$. For a beneficiary with whom the firm transacts, measurement reveals $a(i)$, and the tailored disbursal $d^m(i) = \bar{a} - a(i)$ both raises productive revenue and maximizes targeting quality. Profit and mission therefore point in the same direction when the firm transacts with beneficiaries.

3 Analysis of the Entrepreneur's Choices

3.1 Transacting and Giving as Substitutes

I now solve the entrepreneur's allocation choices for a fixed legal form v . The tradeoff is simple. Giving saves measurement costs but forces the entrepreneur to use imperfect information. Transacting requires measurement costs but allows the entrepreneur to tailor assistance to each beneficiary's need. [Appendix B](#) provides the proofs omitted from the main text.

Start with giving. Because the entrepreneur does not observe individual ability, all beneficiaries served through giving are identical from her perspective. The optimal giving disbursal trades off the monetary cost of paying more against the quality loss from giving too little or too much. This gives

⁵[Online Appendix A.2](#) discusses a quality measure with no penalty for waste.

$$d^{g*}(i) = \max \left\{ 0, \bar{a} - \mathbb{E}(a) - \frac{v}{2\gamma} \right\} \quad \forall i \in [0, g]. \quad (3)$$

The last term, $\frac{v}{2\gamma}$, reflects the entrepreneur's monetary incentive to economize on disbursements. This incentive vanishes as $\gamma \rightarrow \infty$.⁶ Thus, the more the entrepreneur values effectiveness, the closer she will set disbursements to the average need of the beneficiaries ($\bar{a} - \mathbb{E}(a)$). Additionally, the monetary incentive to underprovide vanishes as $v \rightarrow 0$, consistent with the theory that the nondistribution constraint provides greater incentives to generate more charity.

I next solve for the optimal disbursements to the m beneficiaries with whom the entrepreneur transacts. By incurring $C(m)$, she observes each beneficiary's ability $a(i)$.

Lemma 1. *If the entrepreneur incurs $C(m)$ to observe the abilities of the m beneficiaries with whom she transacts, both her financial and altruistic incentives lead her to tailor each disbursement to the beneficiary's observed ability. Thus, $d^{m*}(i) = \bar{a} - a(i)$ for all $i \in [0, m]$.*

Below $\bar{a} - a(i)$, an additional unit of disbursement raises revenue by r and costs one. Above $\bar{a} - a(i)$, it raises no revenue and is wasteful. Targeting quality is also maximized exactly at $d^m(i) = \bar{a} - a(i)$.

Lemma 2. *Without loss of generality, an entrepreneur who chooses to transact with beneficiaries incurs measurement costs and tailors disbursements to their abilities.*

The intuition follows from comparing unmeasured transacting with giving. Without measurement, the entrepreneur does not observe $a(i)$ and therefore cannot tailor $d(i)$. Compare this with assisting the same beneficiary through giving with the same disbursement. Both choices serve one beneficiary, attract the same donative funding, and produce the same targeting quality. Under giving, however, a standard worker remains in production. Under unmeasured transacting, the beneficiary replaces that worker and may remain less productive if the disbursement is insufficient to raise her ability to $\bar{a}$. Unmeasured transacting therefore offers no targeting advantage and may reduce revenue, so giving weakly dominates it.

Having characterized the optimal disbursement under each channel, I now consider how the entrepreneur allocates beneficiaries between transacting and giving. For the comparative statics below, I assume $d^{g*}(i) > 0$, equivalently $\bar{a} - \mathbb{E}(a) > v/(2\gamma)$, and focus on a finite, unique optimum with $m^* < w$, so the firm's fixed number of jobs does not constrain transacting.⁷ The resulting allocation can take one of three forms. Under pure giving, $m^* = 0$

⁶For each beneficiary served through giving, the relevant first-order condition is $-v - 2\gamma(d - (\bar{a} - \mathbb{E}(a))) = 0$. If its solution is nonpositive, the nonnegativity constraint imposes $d^{g*}(i) = 0$.

⁷For the values of m and n considered below, I assume that C and D are twice continuously differentiable, $C''(m) > 0$, $D''(n) < 0$, and $\lim_{n \rightarrow \infty} D'(n) = 0$.

and $g^* = n^*$. In the mixed regime, $m^* > 0$ and $g^* > 0$, so $n^* > m^*$. Under pure transacting, $g^* = 0$ and $n^* = m^* > 0$.

The entrepreneur can increase total scale n either by raising m or by raising g . Raising m expands scale through transactions. The entrepreneur receives the marginal donation, pays the expected disbursal, and pays the marginal measurement cost. Raising g expands scale through giving. The entrepreneur receives the marginal donation and pays the expected disbursal, but also bears the expected quality loss from disbursals chosen without observing individual ability. At any allocation (n', m', g') satisfying $n' = m' + g'$, substituting the optimal disbursal rules into equation (2) gives

$$\begin{aligned} & v(r \cdot w \cdot \bar{a} + D(n') - C(m') - n'(\bar{a} - \mathbb{E}(a))) \\ & - g' \cdot \gamma \text{Var}(a) + \frac{v^2 g'}{4\gamma} \end{aligned} \quad (4)$$

If n is increased by raising m , the marginal change in expected utility is

$$v(D'(n') - (\bar{a} - \mathbb{E}(a)) - C'(m')).$$

If n is increased by raising g , the marginal change is

$$v(D'(n') - (\bar{a} - \mathbb{E}(a))) - \gamma \text{Var}(a) + \frac{v^2}{4\gamma}.$$

Define

$$S(v) \equiv \frac{\gamma}{v} \text{Var}(a) - \frac{v}{4\gamma}.$$

$S(v)$ is the marginal advantage of measured transacting over giving, expressed in monetary-payoff units. The entrepreneur will expand through transactions rather than giving only if

$$C'(m') < S(v) \quad \text{and} \quad C'(m') < D'(n') - (\bar{a} - \mathbb{E}(a)).$$

The first condition requires the targeting benefit from measurement to exceed its marginal cost. The second requires marginal donative funding, net of the expected disbursal, to cover that cost. If the first inequality fails, the entrepreneur raises g only when the marginal return from giving is positive. If neither raising m nor raising g has a positive marginal return, she does not increase total scale n .

The entrepreneur ceases to increase m when one of two limits is reached. The targeting limit, m_T^* , is reached when

$$C'(m_T^*) = S(v) < D'(m_T^*) - (\bar{a} - \mathbb{E}(a)). \quad (5)$$

Beyond this point, additional measurement costs more than its targeting benefit. The funding limit, m_F^* , is reached when

$$C'(m_F^*) = D'(m_F^*) - (\bar{a} - \mathbb{E}(a)) < S(v). \quad (6)$$

I assume that equation (6) has a solution $m_F^* \in (0, w)$, so the funding limit is positive and lies below the firm's production capacity.⁸ Beyond m_F^* , marginal donative funding net of the expected disbursement no longer covers measurement cost.

These conditions show that transacting with beneficiaries is preferable when $\text{Var}(a)$ is large, reflecting the informational advantage of social enterprises. Conversely, giving is preferable when $\text{Var}(a)$ is small. Similarly, transacting is favored when the entrepreneur has a high regard for the quality of philanthropy (γ), while giving is more suitable when γ is low. Thus, the entrepreneur internalizes the need to tailor disbursements when the variance in abilities is greater and she places higher value on subsidy effectiveness.

If the funding limit binds first, the entrepreneur serves beneficiaries only through transactions, so

$$m^* = n^* = m_F^*, \quad g^* = 0.$$

If the targeting limit binds first at $m_T^* > 0$, the optimum is mixed. The entrepreneur sets $m^* = m_T^*$ and increases n through giving until

$$D'(n_T^*) = S(v) + (\bar{a} - \mathbb{E}(a)).$$

This implies that n_T^* decreases as $\text{Var}(a)$ and γ increase. Conversely, m_T^* increases with $\text{Var}(a)$ and γ because $C''(m) > 0$. [Lemma 3](#) and [Proposition 1](#) summarize these comparative statics.

Lemma 3. *In the mixed regime, there exists a one-to-one mapping between m^* and n^* , between m^* and g^* , and between g^* and n^* .*

Proposition 1. *Holding $\mathbb{E}(a)$ fixed, suppose that $d^{g^*}(i) > 0$, the optimum is finite and unique, $C''(m) > 0$, $D''(n) < 0$, and $m^* < w$. Then: **(A)** In the mixed regime, an increase in $\text{Var}(a)$ or γ increases m^* and decreases g^* . The entrepreneur therefore shifts assistance from giving toward transactions.*

(B) *In the mixed regime, an increase in either $\text{Var}(a)$ or γ decreases total scale n^* . Thus, the shift toward transactions is accompanied by assistance to fewer beneficiaries.*

⁸Because $C''(m) > 0$ and $D''(n) < 0$, any solution is unique. Given $\lim_{n \rightarrow \infty} D'(n) = 0$, the condition $D'(0) > \bar{a} - \mathbb{E}(a) + C'(0)$ guarantees a positive solution; w is assumed large enough that this solution is feasible.

(C) If $S(v)$ is large enough that the funding limit binds before the targeting limit, the optimum is pure transacting: $n^* = m^* = m_F^*$ and $g^* = 0$. Every assisted beneficiary is then served through a transaction.

This proposition also yields a simple tradeoff between heterogeneity, quality, and scale.

Corollary 1. *Holding $\mathbb{E}(a)$ fixed, an increase in $Var(a)$ shifts assistance from giving toward measured transactions. In the mixed regime, m^* rises while g^* and total scale n^* fall. If increasing $Var(a)$ eventually leads to pure transacting, then expected quality rises and total scale falls for values of $Var(a)$ sufficiently close to that point from below. At that point, optimal scale reaches its minimum, $n^* = m^* = m_F^*$, and expected quality reaches its maximum, $\mathbb{E}[q] = 0$.*

The intuition is simple. As beneficiaries become more heterogeneous, tailoring becomes more valuable. The entrepreneur therefore measures more beneficiaries, relies less on giving, and serves fewer beneficiaries in total. In the mixed regime, [Lemma 1](#) and equation (3) imply

$$\mathbb{E}[q] = -g^* \left(Var(a) + \frac{v^2}{4\gamma^2} \right).$$

The formula reveals two opposing effects. A higher $Var(a)$ reduces g^* , which improves expected quality because fewer beneficiaries receive untailored disbursements. But it also makes each remaining untailored disbursement less accurate, which reduces expected quality. At lower levels of variance, either effect can dominate. Close enough to the point at which giving disappears, however, the reduction in g^* dominates, so expected quality rises while scale falls. [Example 1](#) in [Online Appendix C](#) shows this path. Quality falls slightly over a narrow low-variance range and then rises to its maximum as giving disappears. This produces the central tradeoff in the model. Higher quality is achieved by serving fewer beneficiaries.⁹ This is consistent with evidence. For example, larger corporations that market fair-trade products may achieve greater scale while relying more on standardized support. In contrast, smaller sourcing organizations may focus on repeated transactions with a more limited number of disadvantaged farmers and on more tailored support ([Eldar, 2017](#)).

⁹A similar scale–performance tradeoff arises in [Aldashev et al. \(2018\)](#), who show that greater nonprofit funding can worsen sectoral performance when the use of funds is imperfectly monitored. Their mechanism operates through motivational selection into the nonprofit sector, whereas limited scale here arises because the entrepreneur forgoes expansion through untailored giving.

3.2 The Effect of Legal Form on the Scale and Quality of Philanthropy

This subsection compares allocations conditional on legal form; the entrepreneur's choice of form is analyzed in [Section 3.3](#). I hold γ and the distribution of abilities fixed and compare the same entrepreneur operating a for-profit, where $v = 1$, with a nonprofit, where $v \in (0, 1)$. Thus, legal form changes only the share of net monetary payoff the entrepreneur can appropriate; it does not change the weight γ on targeting quality. The subscripts fp and np denote the choices under the two forms.

Recall that

$$S(v) = \frac{\gamma}{v} \text{Var}(a) - \frac{v}{4\gamma}.$$

Because

$$S'(v) = -\frac{\gamma \text{Var}(a)}{v^2} - \frac{1}{4\gamma} < 0,$$

$S(v) > S(1)$. [Figure 2](#) summarizes the threshold structure.

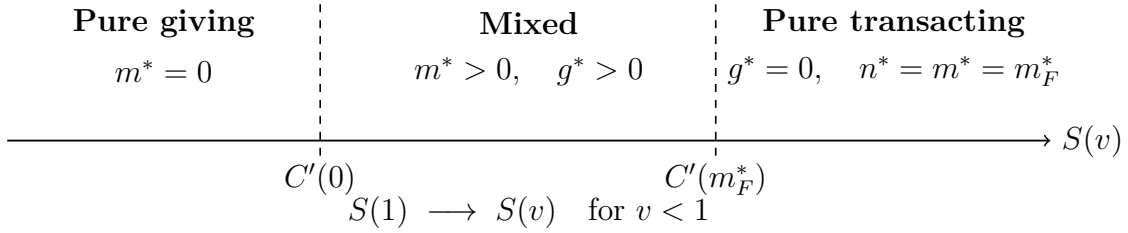


Figure 2: **Allocation Regimes as Targeting Incentives Rise**

Pure giving applies when $S(v) \leq C'(0)$, the mixed regime applies when $C'(0) < S(v) < C'(m_F^*)$, and pure transacting applies when $S(v) \geq C'(m_F^*)$. Because a nonprofit has $v < 1$ and $S(v) > S(1)$, it lies to the right of an otherwise identical for-profit. Moving right weakly raises m^* and lowers g^* and n^* .

The nonprofit form means that the entrepreneur places greater weight on targeting quality relative to monetary payoff. This need not produce higher expected quality, however, because the two forms may choose the same allocation. Under the conditions of [Proposition 1](#), the choices characterized in [Section 3.1](#) imply

$$m_{np}^* \geq m_{fp}^*, \quad g_{np}^* \leq g_{fp}^*, \quad n_{np}^* \leq n_{fp}^*.$$

Expected quality under legal form $j \in \{np, fp\}$ is

$$\mathbb{E}[q_j] = -g_j^* \left(\text{Var}(a) + \frac{v_j^2}{4\gamma^2} \right), \quad v_{np} = v, \quad v_{fp} = 1.$$

When giving remains, the nonprofit relies weakly less on it and chooses disbursements closer to average beneficiary need. When both forms use pure transacting, however, legal form changes neither the allocation nor expected quality.

The three canonical allocation regimes clarify the comparison.

Case 1. Pure Giving: Suppose $C'(0) \geq S(v)$, so measurement is not worthwhile even under the nonprofit form. Because $S(v) > S(1)$, both forms choose $m^* = 0$ and serve all beneficiaries through giving. Their optimal scales satisfy

$$D'(n_{np}^*) = \bar{a} - \mathbb{E}(a) + S(v), \quad D'(n_{fp}^*) = \bar{a} - \mathbb{E}(a) + S(1).$$

Since D' is strictly decreasing, $n_{np}^* < n_{fp}^*$. Moreover, $d_{np}^{g*}(i) > d_{fp}^{g*}(i)$, so the nonprofit's disbursement is closer to average beneficiary need. Thus, the nonprofit operates at lower scale and produces higher expected quality.

Case 2. Mixed Giving and Transacting: Suppose both forms use transactions for some beneficiaries and giving for others. For legal form j ,

$$C'(m_j^*) = S(v_j), \quad D'(n_j^*) = \bar{a} - \mathbb{E}(a) + S(v_j).$$

Because C' is strictly increasing, D' is strictly decreasing, and $S(v) > S(1)$, the nonprofit chooses $m_{np}^* > m_{fp}^*$ and $n_{np}^* < n_{fp}^*$. Consequently, $g_{np}^* < g_{fp}^*$. The nonprofit again operates at lower scale and produces higher expected quality.

The two forms need not always occupy the same regime. As $\text{Var}(a)$ or γ rises, the nonprofit may begin transacting while the for-profit still uses pure giving, or the nonprofit may reach pure transacting while the for-profit still mixes. These are transitions between the three canonical cases. The orderings above continue to hold because the nonprofit has the larger value of S .

Case 3. Pure Transacting: Suppose the funding limit binds before the targeting limit for the for-profit. It then also binds first for the nonprofit because $S(v) > S(1)$. Under either form, scale solves

$$C'(m_F^*) = D'(m_F^*) - (\bar{a} - \mathbb{E}(a)),$$

which does not depend on v . Therefore,

$$m_{np}^* = n_{np}^* = m_{fp}^* = n_{fp}^* = m_F^*, \quad g_{np}^* = g_{fp}^* = 0.$$

By [Lemma 1](#), both forms tailor every disbursal, so $\mathbb{E}[q_{np}] = \mathbb{E}[q_{fp}] = 0$.

Proposition 2. *Under the conditions of [Proposition 1](#), compare a nonprofit with $v \in (0, 1)$ and a for-profit with $v = 1$, holding γ and the distribution of abilities fixed.*

(A) *If $S(1) \geq C'(m_F^*)$, as occurs for sufficiently high $\text{Var}(a)$ holding $\mathbb{E}(a)$ fixed, both forms choose $n^* = m^* = m_F^*$ and $g^* = 0$. Both attain maximal expected quality, $\mathbb{E}[q] = 0$.*

(B) *If $S(1) < C'(m_F^*)$, the for-profit uses giving. Then $m_{np}^* \geq m_{fp}^*$, $g_{np}^* < g_{fp}^*$, $n_{np}^* < n_{fp}^*$, and $\mathbb{E}[q_{np}] > \mathbb{E}[q_{fp}]$.*

Part (A) is central to the paper. The nonprofit's quality advantage in part (B) exists only while the for-profit continues to use giving. When beneficiary heterogeneity is high, giving creates a large expected targeting loss, and the for-profit instead serves every beneficiary through a measured transaction. The nonprofit does the same. Because measurement reveals ability and each tailored disbursal raises both revenue and targeting quality, the nonprofit constraint no longer improves the allocation. Thus, where measurement is most valuable, a for-profit provides the same maximal targeting quality as a nonprofit ([Haber, 2016](#); [Pallotta, 2022](#)).

Corollary 2. *Suppose the beneficiary pool remains fixed and, after the beneficiaries to be assisted are determined, the entrepreneur observes each beneficiary's ability before choosing disbursals, without incurring measurement costs. Then an optimum can be achieved with $m^* = 0$.*

The corollary identifies when beneficiary-facing transactions matter in the model. If ability can be observed without transacting, transactions provide no informational advantage and are unnecessary for achieving an optimum.

3.3 The Entrepreneur's Choice of Legal Form

I now allow the entrepreneur to choose legal form. Throughout this subsection, I assume that nonprofits receive no tax benefits. In the high-heterogeneity region identified in [Proposition 2\(A\)](#), both forms use pure transacting and attain maximal expected quality. Let $\mathbb{E}[P_T^*]$ denote the expected net monetary payoff from this common allocation. Because the entrepreneur can choose no philanthropy, which yields $P = rw\bar{a} > 0$ and $q = 0$, optimality

implies $\mathbb{E}[P_T^*] > 0$. Because targeting quality equals zero,

$$U_{fp}^E = \mathbb{E}[P_T^*], \quad U_{np}^E = v\mathbb{E}[P_T^*].$$

Since $v < 1$, the entrepreneur strictly prefers the for-profit. Thus, the for-profit both matches the nonprofit's quality and is preferred where beneficiary heterogeneity makes measurement and tailored assistance most important.

When the for-profit retains some giving, the comparison differs on quality but not on legal-form choice. By [Proposition 2\(B\)](#), the nonprofit would provide higher expected targeting quality at lower scale. The entrepreneur nevertheless prefers the for-profit under the baseline assumptions. The reason is that a for-profit can adopt the nonprofit's scale and transaction choices, choose its own optimal giving disbursal, and place greater weight on the positive monetary payoff. This feasible allocation already gives the entrepreneur higher utility than the nonprofit allocation, so the for-profit optimum does as well.

Proposition 3. *Maintain the comparison in [Proposition 2](#), which holds γ and the distribution of abilities fixed. Suppose scale (n) is observable ex ante. Absent tax benefits, the entrepreneur strictly prefers the for-profit form.*

(A) *If $S(1) \geq C'(m_F^*)$, both forms choose the same pure-transacting allocation and attain the same maximal expected quality, $\mathbb{E}[q] = 0$.*

(B) *If $S(1) < C'(m_F^*)$, the for-profit uses giving. The nonprofit would produce higher expected quality at lower scale.*

When the for-profit uses giving, it operates at greater scale and therefore attracts more donative funding than the nonprofit. This comparison does not assume that the for-profit entrepreneur is less altruistic (has a lower γ). Rather, $v = 1$ gives monetary payoff greater weight relative to targeting quality, so the for-profit tolerates more untailored giving. When $Var(a)$ is sufficiently high, that giving disappears and so does the nonprofit's quality advantage. [Example 2](#) in [Online Appendix C](#) illustrates the contrast between the giving and pure-transacting cases.

[Proposition 3](#) also differs from [Glaeser and Shleifer \(2001\)](#). There, nonprofit status commits the entrepreneur to provide more noncontractible quality after consumers have paid, and consumers reward that commitment through a higher initial price. Here, planned scale n is observable and determines funding, while targeting quality q is not directly observable and is determined by disbursements chosen later. Because a for-profit can reproduce any nonprofit allocation and its targeting quality under the same scale-based funding schedule, unobservable ex post quality alone does not induce nonprofit choice.

The legal-form comparison also depends on two institutional assumptions. The first is that donations to nonprofits are not tax-deductible. [Online Appendix B.1](#) relaxes this assumption. Tax deductibility increases nonprofit donations and can incentivize entrepreneurs to choose the nonprofit form. Without tax deductibility, nonprofits may struggle to raise funds even if they provide higher-quality philanthropy. By contrast, for-profit firms with large charitable arms frequently attract substantial capital, via consumer premiums or investors accepting lower returns, even amid concerns over the quality of for-profit philanthropy (see [Masulis and Reza, 2015](#)).¹⁰

The second assumption is that donations depend only on planned scale and not directly on expected quality. [Section 3.4](#) relaxes this assumption. It shows that the entrepreneur continues to prefer the for-profit in the pure-transacting region, but that the legal-form ranking is not generally determined when some giving remains.

3.4 The Donor's Decision

The baseline model represents donor support with the reduced-form schedule $D(n)$ introduced in [Section 2](#). As noted there, this schedule can be understood as suppressing an explicit donor problem in which $U^D = Y - D(n) + F(n)$, where Y is donor wealth and $F(n)$ is the donor's increasing, concave benefit from the number of beneficiaries assisted. The donor's interior condition for supported scale is $D'(n) = F'(n)$. When expected quality does not enter donor utility, modeling this choice explicitly therefore adds a funding condition but does not alter the entrepreneur's tradeoff between giving and transacting. The entrepreneur still chooses her allocation in response to the support associated with each planned scale under $D(n)$.

In the baseline, donor support depends only on observable scale. I now allow donor utility also to depend on the expected quality of the program. [Online Appendix A.3](#) provides the derivation. Expected quality depends in part on γ , the weight the entrepreneur places on effective assistance. For this extension, let $\Gamma = [\underline{\gamma}, \bar{\gamma}] \subset (0, \infty)$ denote the set of possible values of γ , where $\underline{\gamma}$ and $\bar{\gamma}$ are the lowest and highest possible weights on effective assistance. The entrepreneur knows her own γ , but the donor does not observe it. The donor observes legal form and the entrepreneur's planned philanthropic scale n ex ante, but not m , g , or the disbursements, and therefore forms beliefs about γ conditional on legal form and scale.¹¹

¹⁰The effect of tax deductibility on philanthropy quality is more nuanced. Tax benefits induce entrepreneurs to scale up. When the tax incentive is modest, the entrepreneur increases scale by transacting with more beneficiaries, thereby maintaining high quality. However, excessively large tax benefits may encourage ineffective giving, thereby reducing quality.

¹¹This informational problem is not unique to the for-profit form. Donors also cannot observe

Let

$$Q(n, v) \equiv \mathbb{E}_\gamma[\mathbb{E}[q \mid \gamma, n, v] \mid n, v]$$

denote the donor's expected quality after observing planned scale and legal form. Thus, $Q(n, v)$ averages targeting quality across the values of γ the donor considers possible after observing n and v . Donor utility is

$$U^D = Y - D_v(n) + F(n, Q(n, v)),$$

where $D_v(n)$ is the support provided to an enterprise with legal-form parameter v , with $D_v(0) = 0$. The benefit function F is differentiable and increasing in both scale and expected quality, so $F_n > 0$ and $F_Q > 0$, and is concave in scale. Subscripts on F and Q denote partial derivatives. At a differentiable interior solution, the donor's marginal condition is

$$D'_v(n^*) = F_n(n^*, Q(n^*, v)) + F_Q(n^*, Q(n^*, v))Q_n(n^*, v).$$

Observable scale can reveal the entrepreneur's allocation and expected quality. In the mixed regime, [Proposition 1](#) implies that a higher γ leads to a lower n^* , while [Lemma 3](#) establishes a one-to-one mapping among n^* , m^* , and g^* . For a given legal form and funding schedule, observed scale therefore identifies γ , the allocation, and expected quality. Under pure giving, $m^* = 0$, $g^* = n^*$, and n^* is also strictly decreasing in γ , so observed scale again identifies γ and expected quality. In the pure-transacting region, different types may choose the same scale, so scale does not identify the exact γ . It nevertheless reveals that $m^* = n^*$, $g^* = 0$, and expected quality is maximal.

Proposition 4. *Suppose $\gamma \in \Gamma$ is privately known by the entrepreneur, while legal form and planned scale (n) are observable to donors, who value both scale and expected quality. Let $0 < \hat{n} < w$ denote the pure-transacting scale, defined as the unique solution to*

$$F_n(\hat{n}, 0) = C'(\hat{n}) + \bar{a} - \mathbb{E}(a).$$

(A) *Holding $\mathbb{E}(a)$ fixed, if*

$$Var(a) > \frac{C'(\hat{n})}{\gamma} + \frac{1}{4\gamma^2},$$

the entrepreneur's altruism when the enterprise is organized as a nonprofit. In [Glaeser and Shleifer \(2001\)](#), by contrast, the analogous altruism parameter b is assumed to be observable.

then, for every $\gamma \in \Gamma$ and $j \in \{fp, np\}$,

$$n_j^* = m_j^* = \hat{n}, \quad g_j^* = 0, \quad \mathbb{E}[q_j^*] = 0.$$

Both legal forms attain maximal expected quality. Absent tax benefits, $U_{fp}^E > U_{np}^E$ for every $\gamma \in \Gamma$, so the entrepreneur chooses the for-profit.

(B) If giving remains under either legal form, the entrepreneur may choose either form, depending on how strongly donors adjust funding for expected quality.

The condition in part (A) is equivalent to $S(1) > C'(\hat{n})$ for the lowest- γ for-profit type. Since $S(v)$ increases in γ and decreases in v , the condition implies pure transacting for every type under both legal forms. Donors therefore anticipate maximal quality even though every entrepreneur type chooses the same scale, so scale does not reveal the entrepreneur's exact γ . Because expected quality is maximal under both legal forms, donor concern for quality does not affect the comparison between them in this region.

Many development settings involve substantial heterogeneity in beneficiaries' abilities and needs, making untailored assistance especially likely to be ineffective (Eldar, 2017). When this heterogeneity is high enough to satisfy Proposition 4(A), every beneficiary is served through a measured transaction and both legal forms attain maximal expected quality. The entrepreneur nevertheless chooses the for-profit even when donors value expected quality. The model therefore explains why for-profit social enterprises arise in development settings where tailoring matters most. It also explains why they may remain relatively small, because they limit their scale rather than expand through untailored giving.

Part (B) applies when some giving remains. Donors then use observed scale to estimate expected quality and adjust their funding accordingly. This funding response enters the legal-form comparison. Depending on its strength, the entrepreneur may choose either legal form. This case is less central to the paper's explanation of social enterprise, however, because beneficiary-facing transactions play their most distinctive role in development settings where beneficiaries' abilities and needs are highly heterogeneous and untailored assistance is especially likely to be ineffective.

4 Certification of Transactions with Beneficiaries

The preceding analysis assumes that planned scale is observable. This is often reasonable for established organizations whose scale and reach are publicly visible. However, planned scale may be difficult to verify ex ante for new or expanding organizations that seek funding based on projected beneficiary numbers before the relevant transactions occur. In that case,

scale alone cannot assure donors of expected quality. Certification offers a different route by making completed beneficiary transactions verifiable.

When scale cannot be used to infer quality, donors must base funding decisions on legal form and other available information. They may place too much weight on high- γ types and overfund an entrepreneur whose γ is low, or too much weight on low- γ types and underfund a high-quality organization, keeping it below the donor-preferred scale that would obtain if donors knew its true γ . Donors who care mainly about scale also cannot verify whether promised beneficiary transactions will occur. Certification addresses both problems by making a narrower activity contractible.

The certifier verifies completed transactions with a fixed number m^c of identified beneficiaries. The entrepreneur receives a fixed subsidy $T(m^c)$ conditional on completing those transactions. The certified payment replaces the scale-based donation schedule $D(n)$. The certifier does not observe individual ability, disbursements, or philanthropic impact. The cost function C and the distribution of beneficiary ability are common knowledge. Certification is typically conducted by a government agency or a nonprofit organization.¹² Beneficiaries may be defined by income, unemployment status, geographic location, or lack of access to technology.¹³

Verifying a transaction does not by itself verify measurement. The entrepreneur must also have a private incentive to learn beneficiary ability. To state a sufficient condition, consider the limiting edge case in which γ approaches zero and the incentive to measure is purely monetary. If the entrepreneur measures a beneficiary, the expected net monetary contribution before measurement cost is $r\bar{a} - \mathbb{E}[\bar{a} - a]$. If she transacts without measuring, she chooses a common disbursement d to maximize expected net revenue. Define the purely monetary value of measurement as

$$\Delta_0 \equiv r\bar{a} - \mathbb{E}[\bar{a} - a] - \max_{d \geq 0} \{r\mathbb{E}[\min\{a + d, \bar{a}\}] - d\}. \quad (7)$$

When $\text{Var}(a) > 0$ and $r > 1$, $\Delta_0 > 0$. Measurement avoids both lost revenue from giving too little and unnecessary spending from giving too much. Because $\gamma > 0$ adds an incentive to avoid targeting errors, Δ_0 is a lower bound on the private value of measurement for the social-mission entrepreneurs studied in the paper.

¹²Private certification is exemplified by the Fair Trade Labeling Organization. Public programs include the CDFI Fund, which certifies and subsidizes financial institutions serving low-income communities, and European regimes that certify and subsidize firms employing disadvantaged workers (Eldar, 2020).

¹³See Eldar (2020) for a discussion of beneficiary classification.

Certified scale must therefore satisfy

$$C'(m^c) < \Delta_0. \quad (8)$$

Because C is convex, this condition implies that the entrepreneur measures every certified beneficiary. If $C'(0) < \Delta_0$, continuity of C' implies that condition (8) holds for every certified scale in some positive interval, $m^c \in (0, \bar{m})$. By [Lemma 1](#), the entrepreneur then sets $d^m(i) = \bar{a} - a(i)$ for every certified beneficiary. The revenue incentive therefore ensures tailored certified transactions even as γ approaches zero. Because the certified payment is fixed, adding untailored giving provides no additional funding and cannot increase utility.

Unlike certification of transactions, certification of giving does not work as an assurance of quality. For any common disbursal d chosen without observing individual ability,

$$\mathbb{E}[(d - (\bar{a} - a))^2] = \text{Var}(a) + (d - (\bar{a} - \mathbb{E}[a]))^2. \quad (9)$$

Thus, when $\text{Var}(a) > 0$, no common disbursal attains maximal targeting quality. Even a required positive disbursal cannot establish targeting quality because the certifier does not observe individual need. Doing so would require beneficiary-by-beneficiary impact assessment, which is in practice very costly. Transaction certification avoids that problem by giving the entrepreneur a revenue incentive to measure need and tailor assistance.

Proposition 5. *Suppose $\text{Var}(a) > 0$ and $C'(0) < \Delta_0$. Then there exists $\bar{m} > 0$ such that the marginal measurement cost is below the monetary value of measurement at every certified scale in $(0, \bar{m})$ ($C'(m^c) < \Delta_0$ for every $m^c \in (0, \bar{m})$). For any such m^c , when the entrepreneur receives a fixed subsidy $T(m^c) \geq C(m^c) + m^c(\bar{a} - \mathbb{E}[a])$ conditional on completing transactions with m^c identified beneficiaries, she measures every certified beneficiary, sets $d^m(i) = \bar{a} - a(i)$, and chooses $g = 0$. Certification therefore guarantees maximal expected quality ($\mathbb{E}[q] = 0$), even though the donor does not observe γ , individual ability, disbursals, or impact. In contrast, certification of g alone cannot guarantee that assistance is tailored to beneficiary need.*

Certification changes what donors need to infer. Without certification, limited observable scale can signal that the entrepreneur is committed to quality, but this signal also constrains the organization's funding. With certification, donors can condition support on a verifiable number of beneficiary transactions. [Proposition 5](#) shows that donors can fund a specified scale of measured transactions while preserving targeting quality, provided certified scale remains within the measurement-incentive condition in equation (8). Certification can thereby facilitate scaling without requiring costly beneficiary-by-beneficiary impact assessment.

This mechanism is broadly consistent with institutions such as fair trade and CDFI certification, even though the model is not meant as a literal description of every detail of those programs. Fair trade certification verifies sourcing from certified producers, while CDFI certification verifies service to underserved communities and unlocks subsidized capital (Dragusanu et al., 2014, 2022; Federal Reserve Bank of New York, 2023). In both cases, certification primarily verifies a limited mission-related activity rather than impact itself.

The fixed subsidy in Proposition 5 covers the measurement and expected disbursement costs of the certified transactions. If the donor’s benefit from certified scale is $F(m)$ and the minimum implementing subsidy is $T(m) = C(m) + m(\bar{a} - \mathbb{E}[a])$, the donor-preferred interior scale satisfies

$$F'(m^c) = C'(m^c) + \bar{a} - \mathbb{E}[a], \quad (10)$$

subject to the measurement-incentive condition in equation (8). Public support may be conditioned on verified beneficiary transactions or provided through tax benefits. A sufficiently large tax deduction may encourage ineffective giving, as shown in Online Appendix B.1. Income tax exemption is even less targeted and may also reduce quality by inducing giving, as discussed in Online Appendix B.2. The model therefore identifies a targeting advantage of subsidies conditioned on verified beneficiary transactions: they fund the activity that generates information, whereas broad tax benefits may also subsidize untailored giving.

5 Conclusion

This paper studies an information problem inside philanthropy. Organizations often do not initially know individual beneficiaries’ needs. Giving can reach more people but relies on averages; transactions create opportunities for costly measurement and tailored assistance. The central tradeoff is between scale and targeting quality.

Greater heterogeneity in beneficiaries’ abilities and needs shifts assistance from giving toward measured transactions and reduces total scale. When heterogeneity is sufficiently high, every beneficiary is served through a measured transaction. Quality is then maximal, but scale remains limited because the entrepreneur does not expand through untailored assistance. Measurement also aligns revenue and mission, so the nonprofit constraint no longer improves the allocation. Absent a nonprofit tax advantage, the entrepreneur chooses the for-profit, even when donors care about expected quality. This helps explain why for-profit social enterprises arise where tailoring matters most and may remain relatively small.

When donors cannot infer quality from planned scale, transaction certification makes the information-generating activity contractible. Donors or public programs can then support measured transactions while preserving tailored assistance, provided measurement remains

worthwhile.

More broadly, beneficiary transactions can reveal needs, helping explain the proliferation of for-profit social enterprises and transaction-based certifications in development settings ([Eldar, 2017, 2020](#)). When impact is hard to verify, this mechanism also highlights limits of broad social-impact measurement and ESG approaches ([Ebrahim and Rangan, 2014](#); [Berg et al., 2022](#)).

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Appendix

A Definitions

1. Variables

a	The ability of each beneficiary
$\bar{a}$	The standard-worker ability level
$C(m)$	The cost of measuring the abilities of m beneficiaries
$d(i)$	The disbursal to beneficiary i
$d^m(i)$	The disbursal to beneficiary i when the firm transacts with that beneficiary
$d^g(i)$	The disbursal to beneficiary i when the firm serves that beneficiary through giving
$D(n)$	The amount of donations the firm receives
$D_v(n)$	Donor support conditional on planned scale and legal form, with $D_v(0) = 0$
Δ_0	The purely monetary value of measuring a beneficiary's ability
$F(n, Q)$	The donor's benefit from philanthropic scale and expected targeting quality
g	The number of beneficiaries that receive a subsidy through giving
Γ	The set $[\underline{\gamma}, \bar{\gamma}]$ of possible values of γ
γ	The entrepreneur's weight on effective assistance
$\underline{\gamma}$	The lowest possible weight on effective assistance in the donor-quality extension
$\bar{\gamma}$	The highest possible weight on effective assistance in the donor-quality extension
m	The number of beneficiaries the firm transacts with
m^c	The certified number of beneficiaries the firm transacts with
n	The total number of beneficiaries the firm assists
$Q(n, v)$	Expected targeting quality conditional on observed scale and legal form
r	The return per unit of worker ability, with $r > 1$
$S(v)$	The marginal advantage of measured transacting over giving, expressed in monetary-payoff units
$T(m^c)$	The fixed subsidy conditional on completing m^c certified transactions
U^D	The utility of the donor
U^E	The utility of the entrepreneur
v	The portion of the firm's earnings the entrepreneur can appropriate, where $0 < v \leq 1$
w	The number of workers the firm employs
κ	The multiplier capturing the income-tax advantage in the monetary component of the entrepreneur's utility
λ	The multiplier on $D(n)$ capturing the funding advantage from tax deductibility

2. Subscripts

fp	The firm allocations (n_{fp} , m_{fp} , and g_{fp}) when the entrepreneur forms a for-profit
np	The firm allocations (n_{np} , m_{np} , and g_{np}) when the entrepreneur forms a nonprofit
F	The firm allocations (n_F , m_F , and g_F) when the funding limit in equation (6) is reached
T	The firm allocations (n_T , m_T , and g_T) when the targeting limit in equation (5) is reached

B Proofs

B.1 Proof of Lemma 1

Fix a measured beneficiary i with ability $a(i)$ and suppress terms that do not depend on her disbursal. Her contribution to the entrepreneur's utility is

$$u_i(d) = v[r \min\{a(i) + d, \bar{a}\} - d] - \gamma(d - (\bar{a} - a(i)))^2.$$

For $d < \bar{a} - a(i)$,

$$u'_i(d) = v(r - 1) + 2\gamma(\bar{a} - a(i) - d) > 0.$$

For $d > \bar{a} - a(i)$,

$$u'_i(d) = -v - 2\gamma(d - (\bar{a} - a(i))) < 0.$$

Thus, utility rises up to $d = \bar{a} - a(i)$ and falls thereafter. The unique optimum is $d^{m*}(i) = \bar{a} - a(i)$.

B.2 Proof of Lemma 2

Consider an expanded problem with m_M measured transactions and m_U unmeasured transactions. Total scale is $n = m_M + m_U + g$, production capacity requires $m_M + m_U \leq w$, and measurement cost is $C(m_M)$. Suppose $m_U > 0$, and fix an unmeasured transaction with disbursal d . Relative to serving that same beneficiary through giving with the same disbursal, the disbursal cost, quality term, donation count n , and measurement cost are unchanged. The only difference is on the revenue side. If the entrepreneur transacts without measuring, she replaces a standard worker with output $r\bar{a}$ by a disadvantaged worker with expected output $r\mathbb{E}[\min(a + d, \bar{a})] \leq r\bar{a}$. Hence the utility difference between unmeasured transacting and giving for that beneficiary is

$$vr(\mathbb{E}[\min(a + d, \bar{a})] - \bar{a}) \leq 0,$$

with strict inequality whenever $\Pr(a + d < \bar{a}) > 0$. Thus, the entrepreneur weakly prefers to reclassify each unmeasured transaction as giving. Repeating this replacement produces an allocation with weakly higher utility and $m_U = 0$. Relabeling m_M as m yields the reduced problem stated in the text; Lemma 1 then implies tailored disbursals.

B.3 Proof of Lemma 3

Let

$$S(v) \equiv \frac{\gamma}{v} \text{Var}(a) - \frac{v}{4\gamma}.$$

In the mixed regime, the targeting limit is reached, so

$$C'(m^*) = S(v), \quad D'(n^*) = (\bar{a} - \mathbb{E}(a)) + S(v).$$

Because C is strictly convex and D is strictly concave, C' is strictly increasing and D' is strictly decreasing. Implicit differentiation with respect to S gives

$$\frac{dm^*}{dS} = \frac{1}{C''(m^*)} > 0, \quad \frac{dn^*}{dS} = \frac{1}{D''(n^*)} < 0,$$

and therefore

$$\frac{dg^*}{dS} = \frac{1}{D''(n^*)} - \frac{1}{C''(m^*)} < 0.$$

Thus, m^* rises strictly with $S(v)$, while n^* and g^* fall strictly. Observing any one of these choices therefore identifies $S(v)$ and, through the two equations above, uniquely determines the other two. This establishes the three one-to-one mappings.

B.4 Proof of Proposition 1

The derivatives of $S(v)$ with respect to the two parameters are

$$\frac{\partial S(v)}{\partial \text{Var}(a)} = \frac{\gamma}{v} > 0, \quad \frac{\partial S(v)}{\partial \gamma} = \frac{\text{Var}(a)}{v} + \frac{v}{4\gamma^2} > 0.$$

Combining these derivatives with those established in the proof of Lemma 3 shows that an increase in either parameter raises m^* and lowers both n^* and g^* . This proves parts (A) and (B).

For part (C), divide the entrepreneur's expected utility in equation (4) by v and omit the term $rw\bar{a}$, which does not depend on m or g . Using $n = m + g$, the remaining expression is

$$\Phi(m, g) = D(m + g) - C(m) - (m + g)(\bar{a} - \mathbb{E}(a)) - gS(v).$$

At $m = m_F^*$ and $g = 0$, equation (6) implies

$$\frac{\partial \Phi}{\partial m} = D'(m_F^*) - C'(m_F^*) - (\bar{a} - \mathbb{E}(a)) = 0$$

and

$$\frac{\partial \Phi}{\partial g} = D'(m_F^*) - (\bar{a} - \mathbb{E}(a)) - S(v) = C'(m_F^*) - S(v) < 0.$$

Thus, the entrepreneur optimally expands transactions to m_F^* but does not add any giving. Because D is strictly concave and C is strictly convex, Φ is strictly concave in m and g . The two derivative conditions therefore identify the unique optimum under $m \geq 0$, $g \geq 0$, and $m \leq w$ as $n^* = m^* = m_F^*$ and $g^* = 0$.

B.5 Proof of Corollary 1

Let $\sigma^2 = \text{Var}(a)$ and hold $\mathbb{E}(a)$ fixed. In the mixed regime, differentiating the two equations in the proof of Lemma 3 with respect to σ^2 gives

$$\frac{dm^*}{d\sigma^2} = \frac{\gamma}{vC''(m^*)} > 0, \quad \frac{dn^*}{d\sigma^2} = \frac{\gamma}{vD''(n^*)} < 0,$$

and

$$\frac{dg^*}{d\sigma^2} = \frac{\gamma}{v} \left(\frac{1}{D''(n^*)} - \frac{1}{C''(m^*)} \right) < 0.$$

By Lemma 1, measured transactions produce no targeting loss. For a beneficiary served through giving, equation (3) implies

$$d^{g^*}(i) - (\bar{a} - a(i)) = a(i) - \mathbb{E}(a) - \frac{v}{2\gamma}.$$

Therefore,

$$\mathbb{E} \left[(d^{g^*}(i) - (\bar{a} - a(i)))^2 \right] = \sigma^2 + \frac{v^2}{4\gamma^2},$$

and consequently

$$\mathbb{E}[q] = -g^* \left(\sigma^2 + \frac{v^2}{4\gamma^2} \right).$$

Differentiating yields

$$\frac{d\mathbb{E}[q]}{d\sigma^2} = \frac{\gamma}{v} \left(\sigma^2 + \frac{v^2}{4\gamma^2} \right) \left(\frac{1}{C''(m^*)} - \frac{1}{D''(n^*)} \right) - g^*.$$

The first term is the quality gain from reducing the number of beneficiaries served through giving. The second is the increase in targeting loss for the beneficiaries who remain in giving. Thus, expected quality rises exactly when

$$\frac{\gamma}{v} \left(\sigma^2 + \frac{v^2}{4\gamma^2} \right) \left(\frac{1}{C''(m^*)} - \frac{1}{D''(n^*)} \right) > g^*.$$

Suppose pure transacting begins at a finite value $\bar{\sigma}^2$ of $Var(a)$, defined by $S(v) = C'(m_F^*)$. As σ^2 approaches this value from below, m^* and n^* approach m_F^* and g^* approaches zero. By continuity, the derivative of expected quality approaches

$$\frac{\gamma}{v} \left(\bar{\sigma}^2 + \frac{v^2}{4\gamma^2} \right) \left(\frac{1}{C'''(m_F^*)} - \frac{1}{D''(m_F^*)} \right) > 0.$$

It is therefore positive for all σ^2 sufficiently close to $\bar{\sigma}^2$ from below, while $dn^*/d\sigma^2 < 0$. At $\bar{\sigma}^2$, $g^* = 0$ and $n^* = m^* = m_F^*$, so expected quality equals its maximum value of zero. For $\sigma^2 > \bar{\sigma}^2$, [Proposition 1](#)(C) continues to apply. Equation (6) does not depend on σ^2 , so the entrepreneur continues to choose $n^* = m^* = m_F^*$ and $g^* = 0$. Since n^* decreases as σ^2 approaches $\bar{\sigma}^2$ and remains constant thereafter, m_F^* is the minimum optimal scale as $Var(a)$ increases.

B.6 Proof of [Proposition 2](#)

Let $A \equiv \bar{a} - \mathbb{E}(a)$ and let

$$s \equiv S(v) = \frac{\gamma}{v} Var(a) - \frac{v}{4\gamma}.$$

Dividing expected utility in equation (4) by v and omitting the constant $rw\bar{a}$ gives

$$\Phi_s(m, g) = D(m + g) - C(m) - A(m + g) - sg.$$

The three regimes can therefore be characterized by s . Under pure giving, $m^* = 0$ and

$$D'(n^*) = A + s.$$

In the mixed regime,

$$C'(m^*) = s, \quad D'(n^*) = A + s.$$

Under pure transacting,

$$n^* = m^* = m_F^*, \quad g^* = 0,$$

where m_F^* solves

$$C'(m_F^*) = D'(m_F^*) - A.$$

Equivalently, pure giving applies when $s \leq C'(0)$, the mixed regime applies when $C'(0) < s < C'(m_F^*)$, and pure transacting applies when $s \geq C'(m_F^*)$. The adjacent regimes yield the same allocation at each boundary.

These choices are monotone in s across all three regimes. Under pure giving,

$$\frac{dn^*}{ds} = \frac{dg^*}{ds} = \frac{1}{D''(n^*)} < 0.$$

In the mixed regime,

$$\frac{dm^*}{ds} = \frac{1}{C''(m^*)} > 0, \quad \frac{dn^*}{ds} = \frac{1}{D''(n^*)} < 0,$$

and

$$\frac{dg^*}{ds} = \frac{1}{D''(n^*)} - \frac{1}{C''(m^*)} < 0.$$

Under pure transacting, m^* and n^* are fixed at m_F^* and $g^* = 0$. The choices are continuous at the boundaries between regimes. Hence, globally, m^* is weakly increasing in s , while g^* and n^* are weakly decreasing in s .

For a nonprofit, $v \in (0, 1)$, whereas for a for-profit, $v = 1$. Because

$$S'(v) = -\frac{\gamma \text{Var}(a)}{v^2} - \frac{1}{4\gamma} < 0,$$

$S(v) > S(1)$. It follows that

$$m_{np}^* \geq m_{fp}^*, \quad g_{np}^* \leq g_{fp}^*, \quad n_{np}^* \leq n_{fp}^*.$$

Expected quality under form j is

$$\mathbb{E}[q_j] = -g_j^* \left(\text{Var}(a) + \frac{v_j^2}{4\gamma^2} \right), \quad v_{np} = v, \quad v_{fp} = 1.$$

The nonprofit has both a weakly smaller g^* and a strictly smaller targeting-loss coefficient. Therefore, $\mathbb{E}[q_{np}] \geq \mathbb{E}[q_{fp}]$.

If $S(1) \geq C'(m_F^*)$, the for-profit has reached pure transacting. Since $S(v) > S(1)$, the nonprofit has also reached pure transacting. Both forms therefore choose $n^* = m^* = m_F^*$, set $g^* = 0$, and attain expected quality zero. This proves part (A).

If $S(1) < C'(m_F^*)$, then $g_{fp}^* > 0$. As s rises from $S(1)$, g^* and n^* fall strictly until the pure-transacting threshold is reached and remain constant only afterward. Because $S(v) > S(1)$, the endpoint inequalities for g^* and n^* are strict, as is the expected-quality inequality. This proves part (B).

B.7 Proof of Corollary 2

Consider any feasible allocation in which the entrepreneur transacts with a beneficiary. Reclassify that beneficiary as being served through giving while holding the beneficiary and disbursal fixed. Total scale, donative funding, disbursal costs, and targeting quality are unchanged. Because ability is observable without measurement, the reclassification also entails no loss of information or additional measurement cost. Under giving, a standard worker remains in production and produces $r\bar{a}$. Under transacting, the beneficiary produces $r \min\{a(i) + d(i), \bar{a}\} \leq r\bar{a}$. The reclassification therefore weakly raises the firm's monetary payoff without lowering targeting quality. Repeating this step for every beneficiary with whom the entrepreneur transacts produces an allocation with $m = 0$ and weakly higher utility. Starting from an optimum proves that an optimum exists with $m^* = 0$.

B.8 Proof of Proposition 3

Let $A \equiv \bar{a} - \mathbb{E}(a)$ and define

$$M(m, g) \equiv rw\bar{a} + D(m + g) - C(m) - (m + g)A.$$

After substituting the optimal disbursals, equation (4) implies that the entrepreneur's reduced objective under legal-form parameter v is

$$W_v(m, g) = vM(m, g) - \gamma \text{Var}(a)g + \frac{v^2g}{4\gamma}.$$

At these disbursals, expected net monetary payoff is

$$\Pi_v(m, g) = M(m, g) + \frac{vg}{2\gamma}.$$

Let (m_v^*, g_v^*) be the nonprofit optimum and let (m_1^*, g_1^*) be the for-profit optimum. Because $(m, g) = (0, 0)$ is feasible,

$$W_v(m_v^*, g_v^*) \geq W_v(0, 0) = vrw\bar{a} > 0.$$

Because $W_v = v\Pi_v + \gamma\mathbb{E}[q]$ and expected targeting quality is nonpositive,

$$\Pi_v(m_v^*, g_v^*) \geq \frac{W_v(m_v^*, g_v^*)}{v} > 0.$$

Evaluating the for-profit objective at the nonprofit's choices gives

$$\begin{aligned} W_1(m_v^*, g_v^*) - W_v(m_v^*, g_v^*) &= (1-v)M(m_v^*, g_v^*) \\ &\quad + \frac{(1-v^2)g_v^*}{4\gamma} \\ &= (1-v) \left(\Pi_v(m_v^*, g_v^*) + \frac{(1-v)g_v^*}{4\gamma} \right) > 0, \end{aligned}$$

where the inequality follows from $v \in (0, 1)$ and the positivity of $\Pi_v(m_v^*, g_v^*)$. Because the for-profit optimizes W_1 ,

$$U_{fp}^E = W_1(m_1^*, g_1^*) \geq W_1(m_v^*, g_v^*) > W_v(m_v^*, g_v^*) = U_{np}^E. \quad (11)$$

For part (A), $S(1) \geq C'(m_F^*)$ and [Proposition 2\(A\)](#) imply that both forms choose $m^* = n^* = m_F^*$ and $g^* = 0$. At this common allocation, $M(m_F^*, 0) = \mathbb{E}[P_T^*]$ and expected quality is zero. Hence

$$U_{fp}^E - U_{np}^E = (1-v)\mathbb{E}[P_T^*],$$

which is positive by the argument above.

For part (B), $S(1) < C'(m_F^*)$ implies that the for-profit uses giving. By [Proposition 2\(B\)](#), its allocation differs from the nonprofit allocation and the nonprofit would attain higher expected quality at lower scale. Equation (11) establishes the entrepreneur's strict preference for the for-profit.

B.9 Proof of [Proposition 4](#)

For part (A), the stated condition is equivalent to

$$\underline{\gamma} \text{Var}(a) - \frac{1}{4\underline{\gamma}} > C'(\hat{n}),$$

which is $S(1) > C'(\hat{n})$ for $\gamma = \underline{\gamma}$. Because $S(v)$ increases with γ and decreases with v , the condition implies $S(v) > C'(\hat{n})$ for every $\gamma \in \Gamma$ under either legal form. Every type therefore lies strictly within the pure-transacting region at $\hat{n}$. By [Lemma 1](#), $g^* = 0$ implies $\mathbb{E}[q] = 0$. The strict inequality also implies that expected quality remains zero after a marginal change in scale, so the donor's quality term drops out of the marginal funding condition. The donor's and entrepreneur's scale conditions are therefore

$$D'_v(\hat{n}) = F_n(\hat{n}, 0) = C'(\hat{n}) + \bar{a} - \mathbb{E}(a).$$

This yields

$$n_j^* = m_j^* = \hat{n}, \quad g_j^* = 0, \quad \mathbb{E}[q_j^*] = 0 \quad \text{for } j \in \{fp, np\}.$$

At $\hat{n}$, both legal forms deliver the same planned scale and maximal expected quality. Because donor utility depends on the enterprise only through scale and expected quality, both forms receive the same support at this allocation. Let P_T^* denote the common net monetary payoff. It is strictly positive because the entrepreneur can instead choose no philanthropy, which yields $P = rw\bar{a} > 0$ and $q = 0$. Hence

$$U_{fp}^{E*} = P_T^* > vP_T^* = U_{np}^{E*}.$$

For part (B), suppose some giving remains. Combining the donor's marginal funding condition with the entrepreneur's scale condition under each legal form gives

$$F_n(n^*, Q(n^*, v)) + F_Q(n^*, Q(n^*, v))Q_n(n^*, v) = \bar{a} - \mathbb{E}(a) + S(v).$$

The term involving expected quality captures how donors adjust marginal funding when greater planned scale is associated with lower expected quality. Its magnitude may differ across legal forms because expected quality responds differently to scale under each form. If this funding adjustment is small, the entrepreneur's baseline preference for the for-profit remains. If donors reduce funding for the for-profit sufficiently more than for the nonprofit, the nonprofit's funding advantage can offset the entrepreneur's lower monetary payoff under that form. The maintained assumptions do not determine which effect is stronger. Therefore, either legal form may be chosen when giving remains, establishing part (B).

B.10 Proof of Proposition 5

Fix a certified target $m^c \in (0, \bar{m})$ and let $h \leq m^c$ denote the number of certified beneficiaries whose abilities the entrepreneur measures, at cost $C(h)$. By Lemma 1, a measured beneficiary receives $d^m(i) = \bar{a} - a(i)$, produces revenue $r\bar{a}$, and has expected disbursement $\mathbb{E}[\bar{a} - a]$. Her expected net monetary contribution before measurement cost is therefore

$$r\bar{a} - \mathbb{E}[\bar{a} - a].$$

For a lower bound, let γ approach zero, so the incentive to measure is purely monetary. Without measurement, the entrepreneur chooses d to maximize

$$r\mathbb{E}[\min\{a + d, \bar{a}\}] - d.$$

The difference between the measured and best unmeasured contributions is Δ_0 in equation (7). Equivalently,

$$\Delta_0 = \min_{d \geq 0} \{d + r\mathbb{E}[(\bar{a} - a - d)_+]\} - \mathbb{E}[\bar{a} - a].$$

For every a and d ,

$$d + r(\bar{a} - a - d)_+ \geq \bar{a} - a.$$

Equality requires $d = \bar{a} - a$. When $Var(a) > 0$, no common d satisfies this equality almost surely, so the inequality is strict in expectation at the optimizing d . Hence $\Delta_0 > 0$.

For $\gamma > 0$, measurement also eliminates the targeting loss from an unmeasured disbursal. Its utility gain is therefore at least $v\Delta_0$, while its marginal utility cost at scale h is $vC'(h)$. Convexity of C and $h \leq m^c$ imply

$$C'(h) \leq C'(m^c) < \Delta_0.$$

It is therefore strictly optimal to set $h = m^c$. Each certified beneficiary receives $d^m(i) = \bar{a} - a(i)$ and contributes zero targeting loss.

The fixed subsidy does not increase with giving. By equation (9), any unmeasured giving disbursal has strictly positive expected targeting loss when $Var(a) > 0$. Because $\gamma > 0$, the entrepreneur sets $g = 0$. Her expected net monetary payoff relative to employing only standard workers is

$$T(m^c) - C(m^c) - m^c(\bar{a} - \mathbb{E}[a]),$$

which is nonnegative under the subsidy condition in [Proposition 5](#). Thus the entrepreneur is willing to complete the certified transactions and achieves $\mathbb{E}[q] = 0$.

Finally, equation (9) gives every common giving disbursal an expected targeting loss of at least $Var(a) > 0$. Certifying g alone therefore cannot guarantee maximal quality or reveal its actual level.

Online Appendix to “The Organization of Social Enterprise”

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A Robustness to Alternative Model Specifications

A.1 Linear Cost Function

Let $C(m) = \rho m$, so that $C'(m) = \rho > 0$, where ρ is a scalar. Continue to assume that optimal scale is positive and production capacity does not bind. Recall that

$$S(v) = \frac{\gamma}{v} \text{Var}(a) - \frac{v}{4\gamma}.$$

Leaving aside knife-edge equality cases, if $\rho > S(v)$, giving is strictly preferred to transacting at any given scale, so $m^* = 0$ and $n^* = g^*$. If $\rho < S(v)$, measured transacting is strictly preferred, so $g^* = 0$ and $n^* = m^*$. Thus, linear measurement costs leave only pure giving or pure transacting (Cases 1 and 3, respectively, in [Section 3.2](#)); the mixed regime (Case 2) does not arise.

The mixed-regime comparative statics in [Proposition 1](#) therefore disappear. The same legal-form pattern as in [Proposition 2](#) nevertheless emerges. Because $S(v) > S(1)$, if $\rho > S(v)$, both forms use giving, and the nonprofit produces higher quality at lower scale. If $S(1) < \rho < S(v)$, the for-profit uses giving while the nonprofit transacts; the nonprofit attains maximal quality at lower scale. If $\rho < S(1)$, both forms transact, choose the same scale, and attain maximal quality.

A.2 No Penalty for Waste

The quality function in the entrepreneur's utility may be considered too demanding because it penalizes the entrepreneur not only for providing too little assistance, but also for wasting money by providing too much. One may instead assume that the entrepreneur cares only about beneficiaries receiving too little assistance. To capture this possibility, replace the quadratic loss by

$$q = - \int_0^m (\bar{a} - a(i) - d^m(i))_+^2 di - \int_0^g (\bar{a} - a(i) - d^g(i))_+^2 di,$$

where $(z)_+ \equiv \max\{z, 0\}$. Measured transacting is unchanged. If the entrepreneur observes $a(i)$, choosing $d^m(i) < \bar{a} - a(i)$ reduces both revenue and quality, while choosing $d^m(i) > \bar{a} - a(i)$ only raises costs. Hence $d^{m*}(i) = \bar{a} - a(i)$ still holds.

Giving is different. For any beneficiary served through giving, the entrepreneur chooses a common disbursement d to solve

$$\max_{d \geq 0} -vd - \gamma \mathbb{E} \left[((\bar{a} - a) - d)_+^2 \right].$$

This objective is concave, with first-order condition

$$2\gamma \mathbb{E} [((\bar{a} - a) - d^{g*})_+] = v$$

for an interior solution, and boundary solution $d^{g*} = 0$ if $2\gamma \mathbb{E}[\bar{a} - a] \leq v$. Relative to the baseline model, giving becomes more attractive because overprovision is no longer penalized. The targeting loss from giving is now governed by the upper tail of unmet need, $\mathbb{E} [((\bar{a} - a) - d^{g*})_+^2]$.

The qualitative mechanism can be stated without solving explicitly for the giving disbursement. Let $N = \bar{a} - a$ denote beneficiary need and define

$$G(v, \gamma) \equiv \min_{d \geq 0} \left\{ d + \frac{\gamma}{v} \mathbb{E} [(N - d)_+^2] \right\}.$$

This is the optimized cost of assisting one beneficiary through giving, expressed in monetary-payoff units. A measured transaction instead entails the expected disbursement $\mathbb{E}[N]$. Thus, measured transacting is preferred to giving at the margin when

$$C'(m) < G(v, \gamma) - \mathbb{E}[N].$$

This is the counterpart to the condition $C'(m) < S(v)$ in the main model. After replacing

$S(v)$ with $G(v, \gamma) - \mathbb{E}[N]$, the reduced allocation problem has the same structure as in the main text.

Accordingly, the qualitative conclusions of [Proposition 1](#) and [Proposition 2](#) remain unchanged. Because a mean-preserving spread in beneficiary need and an increase in γ/v weakly raise $G(v, \gamma)$, greater heterogeneity or concern for quality shifts assistance from giving toward measured transactions and reduces scale when some giving remains. A nonprofit has lower v and therefore shifts assistance further in the same direction. Once both forms reach pure transacting, they choose the same scale and attain the same maximal quality. What changes is that the relevant threshold depends on the full distribution of beneficiary need rather than on $Var(a)$ alone.

A.3 Donors Who Care About Expected Quality

Suppose γ is privately known by the entrepreneur and is drawn from a distribution H with support $\Gamma = [\underline{\gamma}, \bar{\gamma}] \subset (0, \infty)$. The donor observes legal form v and planned scale n , but not γ , m , g , or the disbursements. Let $H(\gamma \mid n, v)$ denote the donor's posterior. When the optimal giving disbursement is positive, as assumed in the main-text analysis, posterior expected quality is

$$Q(n, v) \equiv \mathbb{E}_\gamma [\mathbb{E}[q \mid \gamma, n, v] \mid n, v] = - \int_\Gamma g^*(\gamma; n, v) \left(Var(a) + \frac{v^2}{4\gamma^2} \right) dH(\gamma \mid n, v). \quad (12)$$

Thus, the donor evaluates the entrepreneur using the full posterior distribution of γ , not simply its mean.

Let donor utility be

$$U^D = Y - D_v(n) + F(n, Q(n, v)),$$

where $D_v(n)$ is the support paid to an enterprise with legal form v , with $D_v(0) = 0$. The function F is differentiable and increasing in scale and expected quality, with $F_n > 0$ and $F_Q > 0$, and is concave in scale. At a positive optimal scale where expected quality changes smoothly with scale, the donor's marginal condition is

$$D'_v(n^*) = F_n(n^*, Q(n^*, v)) + F_Q(n^*, Q(n^*, v))Q_n(n^*, v). \quad (13)$$

This condition does not assume that the donor observes γ ; the quality term is evaluated using the posterior in equation (12).

Consider first an allocation in which some giving remains. The entrepreneur's scale

condition is

$$D'_v(n^*) = \bar{a} - \mathbb{E}(a) + S(v; \gamma), \quad S(v; \gamma) \equiv \frac{\gamma}{v} \text{Var}(a) - \frac{v}{4\gamma}. \quad (14)$$

Fix v and $D_v(n)$. Because $S(v; \gamma)$ is strictly increasing in γ , while $D'_v(n)$ is strictly decreasing in n , the entrepreneur's optimal scale n^* decreases strictly with γ . The donor can therefore infer γ from observed scale. Scale also reveals the allocation: under pure giving, $m^* = 0$ and $g^* = n^*$; in the mixed regime, [Lemma 3](#) provides a one-to-one mapping from n^* to m^* and g^* . The donor can therefore infer expected quality whenever some giving remains.

Now consider pure transacting. The entrepreneur's scale condition becomes

$$D'_v(n^*) = C'(n^*) + \bar{a} - \mathbb{E}(a), \quad (15)$$

which is independent of γ and v . Entrepreneurs with different values of γ and different legal forms may therefore choose the same scale, so scale need not reveal their exact γ . Nevertheless, $g^* = 0$ implies $Q(n, v) = 0$ regardless of the donor's beliefs. If a small change in scale leaves every entrepreneur in the pure-transacting region, then $Q_n(n, v) = 0$ locally, and equation [\(13\)](#) reduces to

$$D'_v(n^*) = F_n(n^*, 0).$$

Combining the donor's and entrepreneur's conditions, let $0 < \hat{n} < w$ denote the unique interior solution to

$$F_n(\hat{n}, 0) = C'(\hat{n}) + \bar{a} - \mathbb{E}(a). \quad (16)$$

A sufficient condition for every $\gamma \in \Gamma$ to choose pure transacting under both legal forms is

$$\text{Var}(a) > \frac{C'(\hat{n})}{\underline{\gamma}} + \frac{1}{4\underline{\gamma}^2}. \quad (17)$$

Condition [\(17\)](#) is equivalent to $S(1; \underline{\gamma}) > C'(\hat{n})$ for a for-profit entrepreneur with the lowest possible γ . Because $S(v; \gamma)$ increases with γ and is larger for a nonprofit with $v < 1$, condition [\(17\)](#) implies pure transacting for every $\gamma \in \Gamma$ under both legal forms. It is satisfied for sufficiently high $\text{Var}(a)$. In this region, donor concern for expected quality does not change the marginal funding condition or scale because expected quality is already maximal. Both forms choose $n^* = m^* = \hat{n}$ and $g^* = 0$ and attain maximal expected quality, as stated in [Proposition 4\(A\)](#).

If this condition fails and some giving remains, equations [\(13\)](#) and [\(14\)](#) imply, at a positive equilibrium scale where expected quality changes smoothly with scale,

$$F_n(n^*, Q(n^*, v)) + F_Q(n^*, Q(n^*, v))Q_n(n^*, v) = \bar{a} - \mathbb{E}(a) + S(v; \gamma)$$

Here, $Q_n(n^*, v)$ measures how the donor's expected quality changes when planned scale increases. When some giving remains, a larger scale signals lower γ and lower expected quality, so $Q_n(n^*, v) < 0$. Donor concern for quality therefore reduces the marginal benefit of additional scale. The size of this adjustment can differ across legal forms. If the adjustment is small, the entrepreneur's baseline preference for the for-profit remains; if it is sufficiently stronger for the for-profit, the nonprofit's funding advantage can offset that preference. The entrepreneur may therefore choose either legal form when giving remains, as stated in [Proposition 4\(B\)](#).

B The Effect of Tax Benefits

B.1 Tax Deductions

Contributions to qualifying nonprofits may be tax deductible. I represent the resulting funding advantage in reduced form by multiplying $D(n)$ by a scalar $\lambda > 1$ in equation (2). This affects the nonprofit entrepreneur differently from income tax exemption.

The targeting threshold

$$S(v) = \frac{\gamma}{v} \text{Var}(a) - \frac{v}{4\gamma}$$

is unchanged, because a marginal increase in scale raises donations equally whether the extra beneficiary is served through transacting or through giving. By contrast, the funding condition in the pure-transacting region becomes

$$C'(m^*) = \lambda D'(m^*) - (\bar{a} - \mathbb{E}(a)).$$

Hence a higher λ raises the scale of pure transacting as long as the resulting allocation still satisfies the targeting bound $C'(m^*) < S(v)$.

Suppose the nonprofit lies strictly within the pure-transacting region when $\lambda = 1$. Let m_T^* solve $C'(m_T^*) = S(v)$, and define $\bar{\lambda}$ by

$$\bar{\lambda} D'(m_T^*) = S(v) + (\bar{a} - \mathbb{E}(a)).$$

For $1 \leq \lambda \leq \bar{\lambda}$, a higher deduction increases measured transacting while $g^* = 0$, so quality remains maximal. At $\lambda = \bar{\lambda}$, the entrepreneur reaches the targeting limit. For $\lambda > \bar{\lambda}$, measured transacting remains at m_T^* , and additional scale is achieved through giving, so expected quality falls.

If, without the tax deduction, the nonprofit already engages in some giving, then m^* is

unchanged because it is pinned down by $C'(m^*) = S(v)$. Scale instead satisfies

$$\lambda D'(n^*) = (\bar{a} - \mathbb{E}(a)) + S(v),$$

so n^* rises with λ and the additional scale comes entirely through higher g^* . The deduction therefore lowers expected quality in the mixed and pure-giving regions.

Because λ raises only the nonprofit's funding, the for-profit can no longer reproduce the nonprofit's allocation under the same funding schedule. The argument establishing [Proposition 3](#) therefore no longer applies, and a sufficiently large deduction may induce the entrepreneur to choose the nonprofit. If the deduction also causes the nonprofit to engage in more giving than the for-profit would, the chosen organization may provide lower expected quality. This possibility is especially relevant when γ is low, as [Example 3](#) in [Online Appendix C](#) illustrates.

Finally, extending tax deductions to for-profits is unlikely to improve philanthropic quality. When both legal forms receive the same deduction, the qualitative comparison in [Proposition 2](#) is unchanged within each regime: nonprofits still deliver weakly higher-quality philanthropy when giving occurs, and both forms deliver maximal quality under pure transacting. If the deduction is large enough to push a for-profit into giving, quality can fall there as well.

B.2 Income Tax Exemption

Qualifying nonprofits are generally exempt from federal income tax on income related to their exempt purposes, although unrelated business income may remain taxable. I represent this tax advantage in reduced form by replacing v in the monetary component of the entrepreneur's utility with $\alpha = v\kappa$, where $\kappa > 1$. I maintain $\alpha < 1$, so the exemption narrows but does not eliminate the restriction on the entrepreneur's ability to appropriate the firm's monetary payoff.

Relative to the baseline, the targeting threshold becomes

$$S(\alpha) \equiv \frac{\gamma}{\alpha} \text{Var}(a) - \frac{\alpha}{4\gamma},$$

which is lower than $S(v)$. Maintaining the positive-disbursal condition $\bar{a} - \mathbb{E}(a) > \alpha/(2\gamma)$, an increase in κ therefore reduces measured transacting in the mixed regime: m^* falls, while n^* and g^* rise. Under pure giving, $m^* = 0$ remains unchanged, while $n^* = g^*$ rises. Because the entrepreneur places greater weight on monetary payoff, the optimal untailored disbursal also becomes less accurate. Expected quality therefore falls in both regimes.

In the pure-transacting region, by contrast, the entrepreneur still chooses scale from

$$D'(m^*) = C'(m^*) + (\bar{a} - \mathbb{E}(a)),$$

which does not depend on α . Income tax exemption therefore leaves scale and quality unchanged unless the reduction in $S(\alpha)$ moves the entrepreneur from pure transacting into the mixed regime.

Although income tax exemption makes the nonprofit more attractive, it does not reverse the legal-form choice as long as $\alpha < 1$: the proof of [Proposition 3](#) applies with α in place of v . The extension also indicates what happens if an equivalent exemption is offered to for-profits. For a for-profit, $v = 1$ and $\alpha = \kappa > 1$. If the firm uses pure transacting at $\kappa = 1$, a sufficiently large κ can lower $S(\alpha)$ enough to induce giving. If the firm is already in the mixed regime, a higher κ increases giving and lowers expected quality. The exemption therefore leaves quality unchanged while pure transacting continues and lowers quality once giving begins.

C Illustrative Examples

Example 1. Suppose $w = 100$, $r = 1.1$, and $a \sim U(0, \bar{a})$, where $\bar{a} = 18$. Thus, $\mathbb{E}(a) = 9$ and $\text{Var}(a) = 27$. This example considers a for-profit, so $v = 1$. The donation and measurement-cost functions are $D(n) = 200\sqrt{n}$ and $C(m) = m^2 + 6m$. Figure OA1(a) varies γ . Figure OA1(b) holds $\gamma = 1.25$ and $\mathbb{E}(a) = 9$ fixed while varying $\text{Var}(a)$ by symmetrically lowering and raising the upper and lower bounds of the ability distribution.

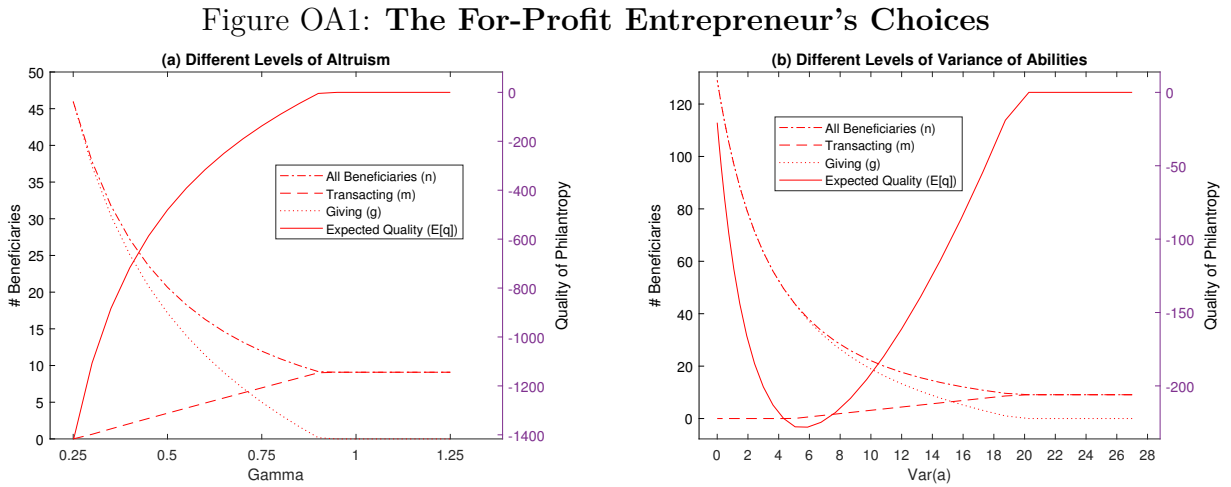
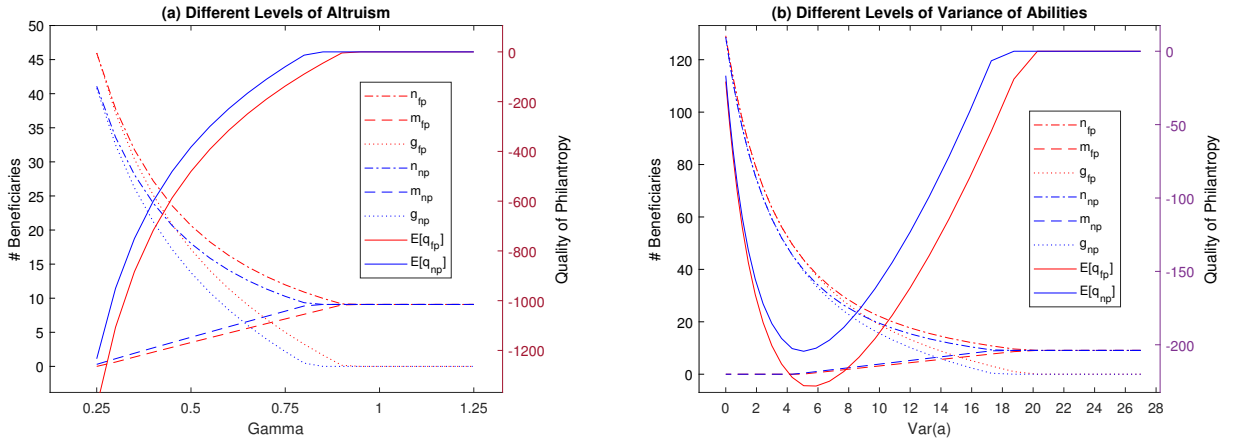


Figure OA1(a) shows that as γ increases, the entrepreneur chooses a larger m and smaller g and n . Expected quality rises until the funding limit is reached, where $g^* = 0$ and $n^* = m^*$.

Figure OA1(b) illustrates [Corollary 1](#). As $\text{Var}(a)$ rises, m increases while g and n fall. Expected quality initially falls over a narrow low-variance range because giving performs well when there is little need to tailor disbursements. It then rises as measured transactions replace giving and total scale falls, reaching its maximum at the pure-transacting allocation. The example therefore illustrates the tradeoff between scale and quality. When tailoring is more important, the entrepreneur concentrates resources on assisting fewer beneficiaries rather than spreading donations across a larger group.

Example 2. Maintaining the parameters in [Example 1](#) and setting $v = 0.9$ for the nonprofit, Figure OA2 compares the choices of for-profit and nonprofit entrepreneurs. Both legal forms display similar patterns in m and g as γ and $\text{Var}(a)$ vary. In accordance with [Proposition 2](#), the nonprofit produces higher expected quality whenever the for-profit uses giving. Once γ or $\text{Var}(a)$ is high enough that both forms use pure transacting, both attain maximal expected quality.

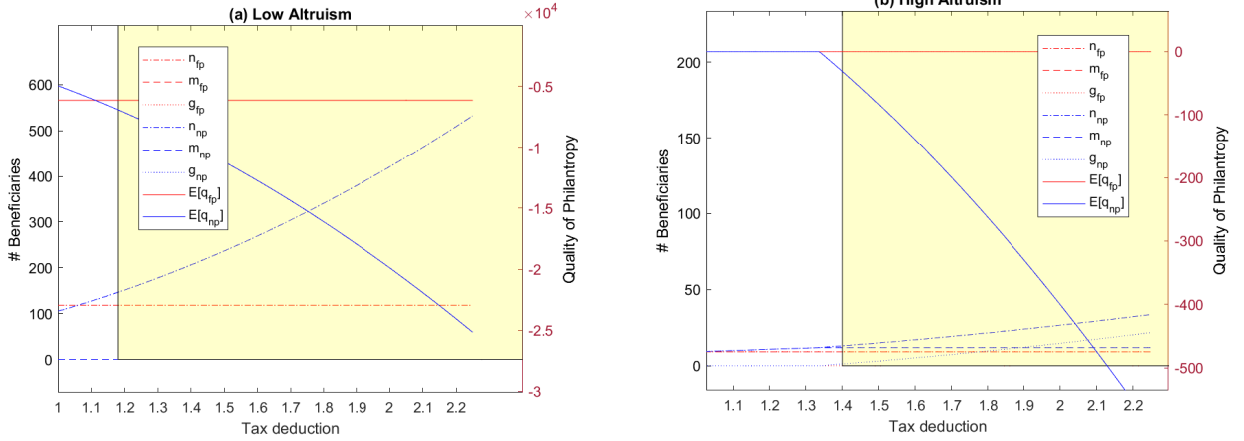
Figure OA2: Comparing the For-Profit and Nonprofit Entrepreneur's Choices



Example 3. Maintaining the parameters in [Example 1](#) and setting $v = 0.9$ for the nonprofit, this example illustrates the impact of different levels of tax deductions (λ) on the entrepreneur's choices and the scale and quality of philanthropy. In Figure OA3(a), I assume low altruism ($\gamma = 0.1$). Without tax deductions ($\lambda = 1$), the entrepreneur chooses the for-profit form. Increasing λ raises n_{np} but lowers $\mathbb{E}[q_{np}]$, as the entrepreneur raises g_{np} . In the yellow region ($\lambda > 1.18$), the entrepreneur selects the nonprofit form ($U_{np}^E > U_{fp}^E$), even though $\mathbb{E}[q_{np}] < \mathbb{E}[q_{fp}]$. In Figure OA3(b), with high altruism ($\gamma = 1$), at $\lambda = 1$, both forms yield maximal quality. As λ rises, m_{np} grows while the nonprofit remains in pure

transacting. At $\lambda = 1.34$, the targeting limit is reached, and further increases in λ cause g_{np} to rise, resulting in a decline in expected quality, $\mathbb{E}[q_{np}]$. It is only in the yellow region ($\lambda > 1.4$) that the tax advantage is large enough for the utility from forming a nonprofit to exceed that of forming a for-profit ($U_{np}^E > U_{fp}^E$). In this region, m_{np} remains at the targeting limit, which exceeds m_{fp} , while g_{np} rises and $\mathbb{E}[q_{np}]$ falls as λ increases.

Figure OA3: Tax Deduction and the Entrepreneur's Choices



Thus, the effect of the deduction depends on the allocation regime. When γ is low, $m_{np} = 0$, and the deduction expands giving and reduces expected quality. When γ is high, a modest deduction initially expands measured transactions while preserving maximal quality. Once the targeting limit is reached, further increases in λ expand giving and reduce quality. In the yellow region, the entrepreneur chooses the nonprofit even though $\mathbb{E}[q_{np}] < \mathbb{E}[q_{fp}] = 0$.

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