

ON TIME, VALUE, & PHILANTHROPY

*Notes from an Informal Discussion
at The Atlantic Philanthropies
10 May 2016*

I. The Question

Are there times — or circumstances, or fields of activity — in which it is better for philanthropy to devote large resources in a comparatively short period, and by doing so expect to achieve greater social value than it could by making smaller contributions more slowly? In other words, in the common shorthand of the trade, is it sometimes better to make “big bets,” with a relatively narrow time horizon, in order to achieve greater “impact”?

If so, how would we know how to recognize those times (or circumstances, or fields)?

These questions are related to — but nonetheless different from — the question of whether an entire foundation ought to operate on a limited life, expend all its resources in a defined period, and then close. Some who have embraced a limited life for their own foundations have argued that their choice offers greater odds of social utility or impact than could be achieved in perpetuity. According to this school of thought, the benefits that can be achieved quickly and at large scale will continue to compound over time more rapidly than would the value of a perpetual endowment. (This is not the prevailing argument for limiting the life of a foundation, however. Most proponents of time-limited philanthropy, including Charles F. Feeney, founder of The Atlantic Philanthropies, do so for other reasons.)

Whether thinking about the size and timing of a philanthropic initiative or of an entire institution, the merits of this proposition turn on what would need to be true — or, at least, what one would need to *believe* to be true — in order to choose, confidently, between a large-and-short style of grantmaking vs. a smaller-and-longer one. Put differently, the choice raises questions about what variables one would need to consider, in what relationships, in order to build an argument for one approach over the other, or for choosing different approaches for different purposes.

To weigh some of these questions, and to begin imagining possible answers, The Atlantic Philanthropies gathered a small group of leaders in philanthropy, academia, and the advisory professions at its New York offices on March 10, 2016. The group (listed in an appendix) considered a number of possible variables and how they would interact in a choice among time horizons and outlays. They also discussed, more basically, whether the question lends itself to some form of modeling or analysis, with the aim of developing a more explicit understanding of the factors at play and the tradeoffs and tensions among them. The purpose of the meeting was not to arrive at a final answer, much less to conclude that one choice is superior to another, but to ask how the question might be framed so that philanthropists, advisers, analysts, and scholars might be able to apply it to specific questions or opportunities.

It should be acknowledged, from the outset, that the vast majority of foundations do not pose these questions in this way, and do not take such a theoretical or analytic approach to answering them. Most would probably respond, if asked, that every initiative has its own set of opportunities, constraints, environment, and uncertainties, and that navigating these constantly changing factors is at least as much art as science.

Still, the proposition that one choice may be more productive than the other — at least in certain circumstances or fields — clearly has at least the underlying features of a cost-benefit calculation, or an assessment of value based on amounts of money, expected return, and time. But the elements of this implicit calculation — its variables and assumptions — usually remain unstated or even unrecognized.

Or, as has happened on occasion, they are stated so simplistically that the whole question becomes easy to dismiss. One such oversimplification — the proposition that time necessarily erodes the value of money, and therefore that all philanthropic assets should be expended as soon as possible — was largely put to rest in a 2003 article by one of the meeting's participants, Professor Michael Klausner of Stanford and New York Universities. In the article Professor Klausner demonstrated that no argument based simply on the time value of money was useful in choosing short-term over long-term giving, absent a morally dubious belief that future lives are worth less than present ones. If benefits are discounted at the same rate as costs, then the question is not about the value of the benefits, but merely about the time at which they are reaped. In fact, if one believes that the value of an endowment will grow above the rate of inflation — a belief briefly but vigorously debated at the Atlantic session — then preserving capital for future use might even have the stronger moral claim.

Still, other variables, besides the simple discounting of costs and benefits, might well lead to a different understanding of the question and thus to different ways of answering it. Some of these — such as a donor's preference for a particular field or time of intervention, expectations about the involvement of other funders, or the relative supply or scarcity of data on social value in one field or another — are less

readily quantifiable. A donor’s family circumstances, desire for personal involvement in giving, or beliefs about how foundations perform over time might not readily yield to prediction or estimation. But other variables could, at least in theory, be arranged in such a way as to model the analysis — or at least make somewhat more explicit the tradeoffs and balances — that a philanthropist or foundation would be making in choosing a shorter or longer timeframe for giving.

II. An Approach to Modeling an Answer

To launch a discussion of the variables that might come into play here, John Ettinger, former chief executive officer of the Helmsley Charitable Trust, described one possible model. He had conceived it in a spirit of neutrality, assuming that neither the time-limited nor the perpetual model of foundation life-expectancy is inherently preferable. Instead, the suitability of one or the other depends on a view of the likely “values” of a set of variables. “Values,” for these purposes, might either be thought of as quantifiable, to at least some rough degree of approximation, or be approached more intuitively, to derive a sense of relative magnitudes of importance without any specific calculation. Depending, as he put it, on the perceived “state of the world” as defined by the magnitude of these variables, either a shorter- or longer-term approach might be seen as preferable:

- U*: The expected **social utility** produced by a dollar of outlay in the time period in which the dollar is spent;
- g*: The **growth rate in efficacy** of the foundation’s outlays that might (or might not) be expected to apply over time — for example, as the foundation learns and becomes more effective at targeting its uses of funds, or as it attracts more allies and co-funders into the field, or as projected future conditions potentially make grantmaking more effective (for example, a project based on Big Data might become more effective as computer power increases, and costs shrink, over time);
- D*: The **distribution rate** of foundation funds — i.e., the percentage of the endowment that can or must be spent each year — consistent with whichever approach (time-limited or perpetual) a foundation adopts;
- R*: The rate of **return on the foundation’s endowment** (i.e., on funds not being awarded in grants) — this rate may well be different for perpetual vs. time-limited foundations;
- I*: The **inflation** rate;
- d*: A “**social discount rate**” by which future returns are discounted to the present for reasons other than inflation — a factor more fully discussed below.
- T*: The expected **life of a time-limited foundation** in years.

F: **Follow-on effects** of the foundation’s efforts — social benefits that are achieved not because of its initial expenditures in the period when they were made, but because of the later ripple effects of what those expenditures produced (for example, the superior education and earnings that a child in an after-school program may go on to achieve, or the beneficial applications of a scientist’s discoveries after they are published); these may increase or decrease over time, and their value to society might likewise rise or fall.

The idea underlying this approach is that a foundation’s (or a grant initiative’s) total value to society comprises three basic elements:

- a) **The dollars that it is able to inject** into public-interest activities (a function of its total resources, its earnings on those resources, and the rate at which it pays them out);
- b) **The social value those dollars purchase directly** (the experiences that students get from an after-school program, discoveries from a scientist’s current research, a meal or shelter bed for a homeless person), which may or may not become greater over time if the foundation becomes more skillful, influential, or effective in supporting this work; and
- c) **The follow-on effects of those direct purchases**, as described above and more fully discussed below.

Mr. Ettinger began with a preliminary, basic model involving just the first two of these elements, before adding in the ripple effects. Although he presented the model in a mathematical form, Mr. Ettinger pointed out that the analysis was not purely or inherently mathematical, and that it could be expressed in an entirely non-mathematical form. At this starting point, a perpetual foundation’s social utility might be seen as the sum, compounded over time, of the utility it produces directly in any given year, per dollar of outlay (U), inflated by the growth in its efficacy year by year (g), times the percentage of its dollars laid out annually ($D \cdot (1 + (R - D))$), all discounted by the rate of inflation plus a “social discount rate” that represents eroded value over time ($I + d$). The result would be multiplied by the size of its assets, though in this presentation it was shown on a per-dollar basis. (A fuller elaboration of Mr. Ettinger’s formulas is attached as Appendix B.)

The simple formula, in its entirety, would be

$$\sum_{t=1}^{\infty} \frac{(U(1 + g)^t) (D(1 - D)^{t-1}(1 + R - D)^t)}{(1 + I + d)^t}$$

For a time-limited foundation or initiative, the number of years is finite (T), and the calculation is based not on a standard rate of payout, but on the percentage of resources available for each year in the expected lifespan: $(1/T)(1 + (R - (1/T)))$. For this time-limited program or institution, the simple formula would be

$$\sum_{t=1}^T \frac{U(1+g)^t (1/T)(1-1/T)^{t-1} (1+R^* - (1/T))^t}{(1+I+d)^t}$$

With continuous compounding, the math would be slightly more complicated. (See Appendix B.)

To add in the follow-on or ripple effects of this value, represented by F , Mr. Ettinger started with:

$$F = \frac{B(1-z)}{d+z}$$

where B is the immediate social benefit of the first year's activity, d is the social discount rate described earlier, and z is the rate at which one might expect the social benefits to decline over time. Here, z is different from the social discount rate, which is simply an adjustment for the difference (if any) between the value of a benefit produced in the future and that of a benefit produced today. Instead, the z variable represents a hypothetical erosion (if any) of the beneficial ripple effects over time. Values of F for each year of the foundation's existence can then be added to the previous calculation to incorporate all three of the elements of social value enumerated earlier. (Appendix B sets out both discrete and continuous versions of the full equations.)

In response to several questions, Mr. Ettinger warned that it can be too easy to get lost in the detailed mathematics of the model, whereas the equations actually point to relationships among issues or considerations that matter greatly in the decision about time horizons. Even a generalized, non-mathematical understanding of their interaction might assist a philanthropist or adviser in making a choice.

Many of these factors attracted considerable discussion at the meeting—in particular:

Endowment Returns ($R-I$): Unless the real investment return, adjusted for inflation, on a foundation's endowment exceeds the distribution rate (in this model's terms, unless $R-I > D$) — the purchasing power of the foundation will decline over time. If that kind of decline is expected, and if the social utility of a foundation's work is assumed to increase with greater aggregate purchasing power, then spending sooner rather than later would yield more social value. This is just a version of the common problem of failing to keep up with inflation, except that in this case, it's the failure to keep up with inflation plus required distributions. Even assuming that a perpetual institution will manage its assets more aggressively than a time-limited one, if the institution still loses real economic value year-by-year, it will achieve greater social utility by spending sooner, rather than over a long term. (Mr. Ettinger has argued, in a recent paper, that the relevant inflation rate for this purpose should likely be higher than the ordinary consumer price index.) Conversely, if a foundation

can consistently manage its endowment to return 5 percent or more after inflation, with all other considerations equal, it could produce more value by operating in perpetuity.

Growth in Efficacy (g): Regardless of whether a perpetual foundation would be able to produce such superior endowment returns year after year, if the foundation believes it can increase over time the *social* returns it realizes on each dollar spent, then a perpetual model would still become more attractive — perhaps enough to offset a decline in the real dollar value of the endowment. Such a belief may be reasonable. For example, there is likely to be a learning curve, over which a foundation’s efficiency and effectiveness may increase. Its “brand” could strengthen over time, which could improve its impact in several ways — for example, by making it more influential with public policymakers or other funders. Even so, improvements due to learning and branding might be expected to plateau after some period. Other factors, such as technological advances, strengthening of the field, and improvements in the political climate, among other things, could also be reasons to believe g would be positive over the long term. There may be some areas of work, such as scientific research, health initiatives, perhaps education, where one might be optimistic that progress is being made at an accelerating rate, so that the best (in terms of efficacy) is yet to come.

On the other hand, it is also plausible to expect that efficacy per dollar will flatten or even decline, at least eventually: The political pendulum may swing from favorable to unfavorable; the easier tasks in a given field will have been accomplished and only the harder ones will remain; economic development may continue and gradually reduce total need. The point is not that there is necessarily any way to quantify this efficacy factor, or to predict it rigorously. Rather, the point is that in favoring the near term or the long term as a grantmaking horizon, one would be making assumptions, at least implicitly, about what will happen to a foundation’s effectiveness over time. Or, perhaps, one might determine that the matter is completely unknowable and thus remove it from the equation altogether — but even that choice would benefit from being made explicitly.

Social Discount Rate (d): Setting inflation aside, a fundamental question about value and time is whether future benefits should be discounted merely because they are in the future and thus not of benefit to one’s own generation. In the model as presented, certain components that are sometimes subsumed under the social discount rate are instead stripped out and given more explicit treatment in separate variables (for example, the factors included in g , above). The social discount rate as presented here is intended to encompass principally two features. The first would be a sentiment, for any number of philosophical reasons, that future generations can and should bear the principal cost of the needs confronting their own time, or that those needs, for whatever reason, simply matter less to the people of today. The second feature represents some general measure of uncertainty about the future: Returns, needs, available personnel, political climate, in fact, just about everything is subject, regardless of the expected value, to uncertainty, by which any expectations

of future social value should be discounted. Arguably, this uncertainty increases over time. However, one might prefer — again, likely for philosophical reasons — to assign a zero value to this factor, on the belief (the “altruism assumption”) that all human life, in whatever generation, is equally worthwhile. It is difficult to see how the perpetual model would offer greater aggregate social utility unless the altruism principle applies and d is equal or close to zero, allowing only for some small level of uncertainty.

Follow-on Effects (F): Follow-on effects might be thought of as the “free lunch” of philanthropy: Even after the money has been spent, follow-on benefits, if any, would continue. The greater they are expected to be, and the longer they are expected to last, the stronger the case would be for spending sooner and larger. When z in the model (the rate of decrease in the follow-on effects) is zero and the benefits are constant — as, for example, in the case of the Salk vaccine, which provides lasting benefit at an arguably constant rate indefinitely — it would be hard, if not impossible, not to press for the greatest-sized action as soon as possible. If the follow-on benefits are more limited, however, the case becomes less clear-cut. The equation does show that the amount of the follow-on effect is very sensitive to the rate at which the “echo” vanishes.

The nature of this echo effect raised some fundamental questions in the discussion. As some participants pointed out, the very idea of “erosion,” or a rate of decrease in the variable z , may be prejudicial here, especially given the sensitivity of the whole “follow-on” portion of the equation to this one variable. It may be possible that follow-on benefits not only do not erode but actually increase over time — if, for example, a fellowship program populates a field with leaders, teachers, and mentors who then inspire some multiple of other talented figures, and the numbers grow over generations. However, even this kind of ripple effect might be expected to slow eventually. For example, other forces, funders, and leaders would likely exert influence on the field as it grows, so that the foundation’s particular influence might become less and less a part of the story. It’s also possible that the average quality of new people in the field might decline as greater and greater numbers enter it. At some later point, the need for more leaders or the available talent pool may simply reach a limit. Alternatively, as Mr. Ettinger pointed out, z might be neither positive nor negative, but simply be zero, as in the Salk example.

Unpacking “Social Utility” (U): In the model as presented, U stands for the expected social benefit per dollar of philanthropic expenditure. The implicit assumption is that U would be the same for an indefinite and a time-limited foundation. But some participants noted that in certain circumstances, U might be higher for a perpetual institution than for one with a limited life. If, for example, total social utility is a function of dollars spent on a problem, there might be some limit to how much money can effectively be thrown at at least certain types of problems over a short period of time. There is at least some reason to believe that the marginal value of the return on a philanthropic investment declines as dollars rise above some point — for example, given that the most promising projects tend to be done

first, incremental spending may be less promising. On the other hand, long shots occasionally pay handsome returns, and the willingness to accept risk may rise as more dollars are available per period. In other cases, however, U may decrease over time, so that investing more sooner would be preferable, even critical (as with climate change, or preserving a deteriorating work of art).

In any case, the debate over the nature and magnitude of these variables reinforced the essential point with which the equations were constructed: They are not meant to prove a case one way or another — they are neither in favor of time limits nor opposed; they neither defend the value of long-term social benefits nor are skeptical of them. They are strictly an attempt to *organize the ideas, assumptions, and expected relationships* that would underlie a purely objective decision about the timing and sizing of an initiative or the setting of a time limit on an entire institution. One donor's or foundation's expectations about these variables might be very different from another's, and thus the equations — or the reasoning they are intended to model — would produce different results.

It should also be noted that the two equations could theoretically be equated — so that the value of the time-limited foundation is equal to that of the perpetual one. That would, in effect, create an indifference case where the two produce the same social benefit, and thus would raise the question of which variables would have to rise or fall on either side to produce an equivalent effect.

III. Other Variables and Influences

Several participants in the discussion noted the absence of an explicit variable for **uncertainty** — a lack of knowledge about one or more variables, or about changes in the environment — or **risk**, the probability that some expected event or result will not occur. On one hand, some forms of uncertainty are incorporated into some of the variables, such as d (because the uncertainty of future benefits might be one reason to discount them) and z (because follow-on benefits might be expected to erode, but at an uncertain rate). It also seems reasonable that any value for U would need to be discounted for performance risk — i.e., the possibility that the expected utility would not occur, or would occur at a different time or pace from what was expected.

But the fact that uncertainty and risk are concealed in these calculations posed a concern for several people. If the purpose of the model is to separate out key elements to examine their relationships and their relative strength in making choices, several people believed that risk and uncertainty deserve to be among the explicit variables. In particular, the influence of various kinds of risk — associated, for example, with performance and completion, tenure and costs of financing, opportunity costs, external factors such as the behavior of other funders or political or regulatory changes — would be different in both timing and magnitude, and thus demand more elaborate expression in the formulas.

In reflecting on these factors, some noted that the varying level of **information** among different actors and fields might be a prime component of uncertainty and risk. One example is the shortage of information on the experiences of other funders, such that g for one foundation does not necessarily contribute to g for others, even in the same line of work. If such information is scarce, or is relatively inaccessible, the effect can be to aggravate risk and augment uncertainty. Another way information gaps complicate these calculations is success bias — a freer flow of information on successful outcomes than unsuccessful ones. We know, for example, about the Aaron Diamond Foundation’s success with HIV treatment; we may know much less about other funders who sought cures and treatments but failed to find them. More broadly, g seems to encompass both performance improvements (operating efficiencies, network effects, economies of scale) and **learning** improvements — the result of additional information improving an initiative’s design and execution.

Some participants noted that the whole model as presented — and perhaps any such model — is necessarily specific to a **field** or realm of investment. That is, U , g , d , and z are all going to vary from field to field. Support for the opera, for instance, might be expected to benefit less from g , perhaps, because one might foresee little improvement in the methods or efficiency of arts presenters or arts philanthropy over time. But it also might suffer less from d , given that great art in 20 years’ time should be of equal value to great art today. The expected follow-on benefits might be lower for the arts than, say, for scientific or medical inquiry. By contrast, a program in support of education might have considerably greater g , given how much a foundation might improve as it becomes a more expert education funder; but the value of d might also be higher, given the uncertainty about whether today’s achievements in pedagogy will still be considered valuable in 20 or 30 years.

These speculations may be right or wrong; the point is that the more sophisticated the interpretation of these variables becomes, the more likely the resulting formula is to be restricted to one narrowly defined line of work, with its own specific values each variable. If a foundation were involved in, say, three or four subject areas, it might be possible to think of three or four separate equations summed together as a combined measure of social value.

Among the issues that are likely to vary from field to field is the **complexity or fertility of the environment** — for example, the presence of other funders, of multiple competing interests or models of intervention, and of volatile public policy. Although such issues would be especially difficult to model, at a minimum they directly affect the level of uncertainty about expected outcomes, and they reduce the ability for any given funder to establish its particular contribution to U or g .

Another subject of discussion was the role of **inflation** (I) in determining both the resources available to foundations in the longer run and the rate at which future benefits should be discounted. While this variable is explicitly accounted for in the

model, some participants believed that the role of inflation is both more complex and more important than it might appear from the formulas alone. As noted above, if the return on a foundation's endowment, minus its outlays, is less than the inflation rate (i.e., $R-D < I$)— as some, but not all, participants believed is common — then the real purchasing power of a perpetual foundation would be declining over time. As one participant observed, this would suggest that the institution is, in fact, time-limited without realizing it. It might also mean that a deliberately time-limited model would produce greater social value.

Conversely if, as some believe, $R-D > I$, then that might be taken as an argument for perpetuity, given that the institution will be able to do more good in the future than it can do today. This would be further reinforced if the endowment were invested in a mission-related way, producing additional social benefit. A contrary view, however, is that this could be an argument for prolonged inaction, and thus for indefinitely forgoing current social benefits. That argument grows stronger as the value of d (the social discount rate) rises, such that the real return on investment, adjusted both for inflation and for social discounting, is less than the rate of an institution's payout, typically 5 percent for a perpetual foundation.

Some participants argued for unpacking the many factors that make up the social discount rate. For example, one member of the discussion, Brian Galle of Georgetown University Law Center, has written that d should account for the **diminishing relative value of future outcomes** as future generations become more prosperous. Even if a given achievement continues to pay steady social benefits year after year, he has argued, those benefits may gradually become less valuable relative to the rising wealth of society. A separate but related point is that philanthropy itself may be growing over time, and spreading its resources over more and more activity — or, perhaps, concentrating more resources on a smaller number of urgent issues. If the quality of the available activity does not rise in proportion to the amount of philanthropic resources devoted to it, then it's possible that foundations will be supporting activity in the future that is less productive, in social-value terms, than it would be today.

Several participants also raised interrelated questions of **scale, scope, and agency costs**. Noting that staffing costs generally rise as a foundation grows larger or enters more fields of work (or, especially, both) some argued for incorporating a variable for economies or diseconomies of scale. If, in laying out more of its resources in a short period of time, a foundation were to significantly increase the number of grants it makes, or to fund more areas of work, or both, it would then likely increase its organizational costs, thus diminishing the amount it could devote to social benefit. Some countered, however, that operating over a longer time horizon with smaller numbers of grants or lower dollar outlays was provided no guarantee of efficiency. Some donors prefer a shorter time horizon for their philanthropy precisely because they perceive a risk that longer life brings bureaucracy and a tendency toward "empire-building" that can actually increase agency costs relative to grant outlays and social value.

Mr. Ettinger noted that the models as presented assumed that all the factors at play (U, g, z, d) increase or decrease exponentially. While this may be reasonable for some variables, such as aggregate inflation, for others there is no reason to assume that the shape of the change over time would be exponential. They could change arithmetically, geometrically, stepwise, or in other ways. Again, the precise nature of these rates of change need not be specified with mathematical precision. It is common, for example, to make decisions based on a “Moore’s Law” assumption that some aspects of technological progress increase exponentially, as compared with slower, more linear growth in other industries. Such decisions are made notwithstanding that we do not (and likely cannot) specify the exact shapes of these growth rates.

IV. Is This the Right Way to Think About a Foundation’s Value?

As at least one panelist pointed out, foundations don’t usually produce value directly, in the way Norman Borlaug produced a method of raising crop yields while working for the Rockefeller Foundation. More often, they support **enterprises**, which grow and diversify and produce benefits (or fail to do so) in ways that may be quite different from, even unrelated to, the value that a foundation intended to produce by investing in them. Supporting a multitude of such enterprises may well be a way of pursuing long-term value, based on the belief that some number of the supported organizations will outperform expectations, while others will underperform. But these expectations would not be specific to each separate relationship. Viewing philanthropy in this way, as a vehicle for financing enterprises in the public interest — whether those enterprises are nonprofit or for-profit, and whether they yield a single kind of social value or, more likely, many intertwined varieties — can make even the most complex calculation of one foundation’s marginal contribution to social utility seem beside the point. In fact, in this light, even the question of how much social utility is contributed by philanthropy as a whole becomes murky. As participant Clara Miller, president of the F. B. Heron Foundation, put it shortly after the meeting:

A grant is a unit of currency most relevant to the IRS and a donor. When deployed to another party, it takes on a different meaning from the meaning to the donor, and that recipient (or even a third party beyond that recipient) is where “impact” or “effectiveness” for a positive intent does or does not happen (or, as is most likely, kind of happens and kind of doesn’t). [The narrowness of these calculations] oversimplifies the question of whether and how time should be factored into philanthropic giving.

Discussion of this point led to an observation that underlies both this perspective and the earlier value equations: The whole discussion has tended to view foundation outlays as **investments** — regardless of whether any given foundation is making

grants, offering program-related financing, or taking equity positions in enterprises. In this discussion and generally in philanthropy, the word “investment” has often been used interchangeably with “grant.” That implies, perhaps incorrectly, that funders are naturally looking for some form of social return, and are allocating their funds according to an estimate (even if unconscious or intuitive) of how to maximize such return. Yet some members of the group noted that grants are often just grants — expressions of support for valued work, not bets on particular outcomes. Seen this way, the choice about whether to give more in a short period or less over a longer period would not be based on the kinds of calculations examined in this discussion. They might well be based simply on the availability of grantees that the funder deems worthy or likely to use the money well. In effect, this is another way of expressing the point that foundations frequently see their work as enabling and strengthening enterprises, not of investing with particular expectations of return.

In some fields of social endeavor, **time** is not a variable that depends on amounts of capital invested, but an independent factor that simply reflects how long a given sequence of accomplishments will take. In these cases, investing more or less may affect the scale of what is accomplished, but not the speed. As Ms. Miller put it, a funder may be wise to ask, “What does money, (in this case philanthropic money) have to do with social benefit at all? The real question is more complicated: What might it really take to solve (or prevent) a problem — and therefore how long will resources need to be dedicated to solving it, and what kind of resources might be most appropriate, and how can they influence other forms of resources?”

Another perspective arose only briefly but deserves note. The question of how a foundation produces value — and of whether there is a relationship between its time horizon and its expectations about value — naturally prompts a question about **public policy**. Specifically, how should the value that a foundation is likely to produce be weighed against the amount of resources the government forgoes by exempting the foundation’s assets and earnings from taxation? And how long should government be willing to wait for funders to deploy their tax-privileged capital? Given that donors can benefit from favorable tax treatment immediately, while reserving their assets for charitable use in the future, questions about time and social utility naturally raise questions about public subsidy. However, this discussion was intentionally focused on how *funders* make decisions about time and value, so questions about public policy, while recognized as critically important, were left to other forums (including one at Stanford University in April 2016, which includes several of the same participants).

V. Where this Discussion Leads (a thought about implications and next steps)

The meeting began with a reflection by Christopher G. Oechsli, president and CEO of the Atlantic Philanthropies, which hosted the event. Mr. Oechsli pointed out that

Atlantic's decision to put all its assets to use in a limited time period was not a function of any specific calculation about value and money, but was primarily the result of founder Chuck Feeney's desire to witness his wealth being used for public benefit in his lifetime. Nonetheless, Mr. Oechsli noted, Mr. Feeney's enthusiasm for Giving While Living was bolstered, at least to some degree, by a belief that what was accomplished today would continue to pay rewards for many years, and that preserving an endowment in perpetuity would entail forgoing some of those rewards until much later. So although Mr. Feeney's choice of a limited life for his foundation was not explicitly based on any computation of costs and benefits over time, it arose partly from the kind of business judgment about timing, risk, and return on which much of his financial success had been based. "I see little reason," he has written, "to delay giving when so much good can be achieved through supporting worthwhile causes today."

Philanthropist Jeffrey S. Raikes has described, in different but related terms, how he and his wife, Tricia Raikes, chose a limited life for the Raikes Foundation. As the Raikeses saw it, the donors' understanding of current affairs, problems, technology, and opportunities for accomplishment are all superior to their ability to predict, much less solve, the problems of the future. Although, like Mr. Feeney, they did not make any specific calculation or projection of their likely contribution to social value, they drew a general conclusion that that contribution would be greater in their own generation, under their own supervision, than it might be if left to an unknowable future. Recast in the terms of this discussion (which Mr. Raikes himself did not use), the choice of a limited life for the Raikes Foundation was, in some ways, based on the assumption of a high social discount rate, aggravated by uncertainty, and on the selection of activities that are likely to produce a high rate of immediate utility and compounding follow-on benefits. In the foundation's words, these are "underfunded issues where we believe our resources can have outsized positive impact on populations in need."

It seems likely that most philanthropists, and even most institutional funders, would take an approach more like Mr. Feeney's and the Raikeses' than like the intricate models examined in this discussion. But that does not diminish the importance of conceiving of a model and reasoning through its implications. To reiterate: the purpose was not to try to recreate the literal thinking of funders who choose a time limit for their initiatives or institutions. The purpose was to make more explicit the trade-offs such a funder might face when making that choice, and to try to organize the interwoven considerations that lie beneath the surface (and, perhaps, beneath the conscious deliberation) of those who make the decision. The formulas are, in essence, heuristic windows through which to view the question.

Still, as the meeting drew to an end, several participants emphasized the need for a less theoretical elaboration, in which the variables and formulas are interpreted in connection with practical cases and examples. As a background for the discussion, Atlantic had circulated a paper by Tony Proscio of Duke University comparing two approaches to a scholarship program — one that reached a large number of

recipients in a short time, the other serving fewer beneficiaries but lasting much longer. The comparison was considerably simpler, involving many fewer variables, than the discussion at this meeting. But it may serve as the kind of example to which a more sophisticated analysis could be applied. (The background paper is attached as Appendix C.)

Several participants raised a need for **further empirical research** into the ways in which time factors into actual foundation decisions and the evaluation of results. Even assuming that the analysis of time in such cases would primarily be retroactive — i.e., that time may not have been an explicitly or consciously calculated variable at the time the initiatives were designed — it should still be possible, and highly relevant, to examine what role (if any) time played in the achievement or deficiency of results. “Cases and stories,” as one participant put it, “would give some specificity to these ideas and help separate the relevant variables from the extraneous ones.”

One suggestion for further analysis was the timing of grant programs in institutions that are not intentionally time-limited. For foundations that are willing to spend above the conventional 5 percent on issues of immediate urgency (or with high near-term return and likely follow-on benefits), are there ways to connect an increase in short-term outlays with a commitment to the preservation of capital — or at least the preservation of the institution — over time? Many comments about the value of investing large amounts over a shorter period grew from a broader frustration with the tendency of foundations to adhere to a 5 percent payout as if it were a ceiling, rather than a floor, on their giving.

Overall, the consensus was that the topic of how time and value interact in philanthropy is important and still poorly understood. Apart from efforts by a small number of scholars — including Professors Klausner and Galle — it remains under-explored and under-analyzed. Even without pre-judging the question of time limits or perpetuity, some participants believed that pursuing the topic in more depth could help in counterbalancing what one called “institutional self-perpetuation bias” in the planning, management, and governance of foundations. It might also provide a way of defining terms and clarifying the assumptions behind the assertion — increasingly common among funders considering a limited life for their philanthropy — that foundations can achieve more impact with a dollar today than with two dollars in the future.

Appendix A: Attendees

Melissa Berman

Founding President & CEO, Rockefeller Philanthropy Advisers, Inc.

John R. Ettinger

Former CEO, The Leona M. and Harry B. Helmsley Charitable Trust

Former Managing Partner, Davis Polk & Wardwell, LLP

Tamara Fox

Former Director, Research and Evaluation, The Helmsley Charitable Trust

Brian Galle

Professor of Law, Georgetown University Law Center

Nathan Huttner

Principal, Redstone Strategy Group

Paul L. Joskow

President, The Alfred P. Sloan Foundation

Ben Kerman

Head of Strategic Learning & Evaluation, The Atlantic Philanthropies

Michael Klausner

Nancy and Charles Munger Professor of Business and Professor of Law, Stanford University

Clara Miller

President, The F.B. Heron Foundation

David J. Morse

Chief Communications Officer, The Atlantic Philanthropies

Christopher G. Oechsli

President & CEO, The Atlantic Philanthropies

Tony Proscio

Associate Director, Center for Strategic Philanthropy & Civil Society, Duke University

Merrill Sovner

Strategic Evaluations Associate, The Atlantic Philanthropies

David Sternlieb

Chief Operating Officer, The Atlantic Philanthropies

Tamara Struk

Strategic Evaluation and Communications Associate, The Atlantic Philanthropies

Appendix B

A Model of Time and Value: Complete Formulas

John R. Ettinger

Updated May 10, 2016

The social utility of a Perpetual Foundation or a Time-Limited Foundation, without taking follow-on effects into account can be expressed as:

Perpetual Foundation

$$(1) \quad \sum_{t=1}^{\infty} \frac{U(1+g)^t (D(1-D)^{t-1}(1+R-D)^t)}{(1+I+d)^t}$$

or

$$(1A) \quad \int_{t=1}^{\infty} \frac{U(e)^{g(t)} D(1-D)^{t-1}(e)^{(R-D)t}}{e^{(I+d)t}}$$

and

Time-Limited Foundation

$$(2) \quad \sum_{t=1}^T \frac{U(1+g)^t (1/T)(1-1/T)^{t-1}(1+R^*-(1/T))^t}{(1+I+d)^t}$$

or

$$2(A) \quad \int_{t=1}^T \frac{U(e)^{g(t)} (1/T) (1-1/T)^{t-1} (e)^{(R^*-(1/T))t}}{e^{(I+d)t}}$$

where:

U = social utility (impact) per dollar at which \$ spent produce social return

g = growth rate in efficacy due to learning, branding, etc.

D = Required Distribution Rate

R and R* = Return on Investment, not risk adjusted, for Perpetual and Time-Limited models, respectively

I = Inflation Rate

d = Social discount rate for reasons other than inflation
T = Life of the Time-Limited Foundation
t = time period
e = Euler's number, the base of the natural logarithm

Follow-On Effects

These are the “free lunch” effects which follow after the time of expenditure, which cost nothing but produce continuing benefits over time. These may continue forever after the time of expenditure at the initial value subject to discounting for the social discount rate, if any (the “Salk case”) or may diminish over time in absolute value, again subject to discounting for the social discount rate, if any.

Assume that these effects decline in impact at some annual rate z, where $0 \leq (z) < 1.0$. For purposes of discounting these effects to determine present value, $I = 0$, as the real dollar impact of these effects is not subject to a financial discount rate and remains constant in real dollar terms subject only to whatever social discount (d) rate is applied to future benefits. In that event it can be shown that the present value of a stream of benefits declining (z)% annually at a social discount rate of d equals

$$F = \frac{B(1-z)}{d+z}$$

Where F = follow-on effect, B equals the social benefit at t_0 .

B, the initial benefit value before declining impact at rate z is therefore the amounts determined in equation 1 (and 1A) and 2 (and 2A) above for the perpetual and limited-life scenarios. Thus, the formulas for the perpetual and the limited-life models, taken with continuous compounding, would be

Perpetual Foundation

$$3(AA) \quad \int_{t=1}^{\infty} \frac{(U(e))^{g(t)} D(1-D)^{t-1}(e)^{(R-D)t}}{e^{(I+d)t}} + \int_{t=1}^{\infty} \frac{e^{-d}(1-z)}{(d+z)} \left(\frac{(U(e))^{g(t)} D(1-D)^{t-1}(e)^{(R-D)(t)}}{e^{(I+d)(t)}} \right)$$

or

$$3(AA') \quad \int_{t=1}^{\infty} \left(\frac{(U(e))^{g(t)} D(1-D)^{t-1}(e)^{(R-D)t}}{e^{(I+d)t}} \right) \left(\left(\frac{e^{-d}(1-z)}{(d+z)} \right) + 1 \right)$$

or

$$3(AA') \quad \left[1 + \left(\frac{e^{-d}(1-z)}{(d+z)} \right) \right] \int_{t=1}^{\infty} \left(\frac{U(e)^{g(t)} D(1-D)^{t-1} (e)^{(R-D)t}}{e^{(I+d)t}} \right)$$

and

Time-Limited Foundation

$$4(AA) \quad \int_{t=1}^T \frac{U(e)^{g(t)} (1/T) (1 - 1/T)^{t-1} (e)^{(R-D)t}}{e^{(I+d)t}} \\ + \int_{t=1}^T \frac{e^{-d}(1-z)}{(d+z)} \left(\frac{U(e)^{g(t)} (1/T) (1 - 1/T)^{t-1} (e)^{(R^* - (1/T))(t)}}{e^{(I+d)(t)}} \right)$$

or

$$4(AA') \quad \int_{t=1}^T \frac{U(e)^{g(t)} (1/T) (1 - 1/T)^{t-1} (e)^{(R-D)t}}{e^{(I+d)t}} \left(\left(\frac{e^{-d}(1-z)}{(d+z)} \right) + 1 \right)$$

or

$$4(AA') \quad \left[1 + \left(\frac{e^{-d}(1-z)}{(d+z)} \right) \right] \int_{t=1}^T \left(\frac{U(e)^{g(t)} (1/T) (1 - 1/T)^{t-1} (e)^{(R-D)t}}{e^{(I+d)t}} \right)$$

where B equals the initial period benefit in either model.

RE-THINKING TIME, MONEY, AND VALUE IN PHILANTHROPY

A Preliminary Concept Paper to Launch a Discussion

Tony Proscio

Center for Strategic Philanthropy & Civil Society
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17 December 2015

Among foundations, donors, and advisers who favor time-limited philanthropy, four rationales tend to predominate. The most common is that a limited life helps to safeguard “donor intent” — that is, it improves the odds that the foundation will adhere to the donor’s original purposes and will not drift, over years and generations, into goals or methods inconsistent with those of the founder. The second rationale, favored by The Atlantic Philanthropies’ founder, Chuck Feeney, among others, is that giving is such a fulfilling experience that donors ought to enjoy it in full during their lifetimes, particularly if they can apply to their philanthropy some of the talent that made them successful in business. A third rationale has to do with family dynamics: parents may not want to constrain the philanthropic choices of their children and grandchildren, or may not trust future generations to manage the philanthropy wisely. The fourth, usually asserted more with faith than with evidence, is that putting resources to use in the present will accomplish more — will have, in the favored language of foundations, greater “impact” — than investing and preserving those resources indefinitely by spending only the earnings.

The first of these rationales awaits the judgment of history — once there has been enough experience with time-limited foundations to be able to compare their record of donor fidelity with that of perpetual institutions. The middle two rationales are largely personal, and thus not amenable to testing or objective critique. But the fourth assertion, while not easy to assess objectively, is in theory a testable claim — even, implicitly, a mathematical one: are philanthropic accomplishments worth more now than in the future? Or, as veteran philanthropic adviser Peter Karoff expressed it in a 2010 presentation, is “good today ... better than good tomorrow”?¹ Is there a way to test this proposition, or at least to construct a model for testing it? Or, perhaps more usefully and realistically: Is there a way to discern *when* this might be

true — in what circumstances, for what causes, for what length of time, or by what standards of value or impact?

The simplest formulation of this rationale — the proposition that donations today are necessarily worth more than donations tomorrow, simply because of the time value of money — was laid to rest by Stanford Law School professor Michael Klausner in a still-widely-cited article published in 2003.² Klausner’s article started by rebutting an admittedly simplistic proposition: that the net present value of a foundation’s future grants will always be less than the value of its wealth today, because of its administrative costs. By that reasoning, a foundation should always spend its assets as quickly as possible — instantly, at best — to limit the erosion of value and deliver the maximum benefit to society. As he points out, this argument assumes that a foundation’s administrative expenditures, particularly the work of its staff and officers, produces no value — an assumption at odds with plentiful evidence.

But the article then goes on to tackle a more subtle argument: that a foundation’s stream of future grants should be discounted at a rate higher than the expected rate of return on the foundation’s endowment, thus making future grants even less valuable relative to present ones. In this case, the assumption is that society will likely reap greater rewards from the grants it receives today than financial managers could deliver on a typical endowment. By that reckoning, as with the simpler argument, any delay in giving will necessarily erode the foundation’s value to society, and it would do best to spend its resources as quickly as possible. To this, Klausner responds that “although foundations are commonly interested in making grants that will produce a return to society that continues for some period of time, many grants — to the opera, symphony, soup kitchen, and homeless shelter, for example — produce benefits that are better characterized as largely consumption rather than investment.” In these cases, he concludes, good acts performed tomorrow are worth exactly the same to their beneficiaries, and thus to society, as good acts performed today.

Consequently, there is not a difference in social value between the present and the future, only in the particular individuals who happen to reap that value, and in the time period when they live. A good opera produced in 2030 is not less good than one produced in 2015; a hungry person at a future soup kitchen is not less hungry than one today. “The mere timing of a generation’s presence on this planet,” he writes, “is not relevant to the social value of charity provided to that generation.” In any case, he adds, even grant-funded activity that produces high social return will not necessarily *continue* producing that same level of return in perpetuity — whereas the endowment will likely continue generating money for future donations year after year after year.

Klausner does briefly acknowledge a few circumstances in which grants today may be more valuable than grants in the future, “despite the fact that a dollar of today’s charity comes at the price of many dollars of future charity.” Land conservation or

disease research, he concedes, could present a strong case for immediate funding, given that their benefits may be perpetual, the opportunities for progress near-term, and the harmful results of inaction possibly irrevocable. A belief that future philanthropy may be more abundant in some areas might also justify disproportionate spending now. For example, if we imagine that economic growth will produce more opera benefactors in the future than there are today, then it makes sense to front-load one's opera grants. But beyond that, he argues, the issues are philosophical, not financial or mathematical. They are best left to foundation donors and leaders to sort out according to their own inner lights.

But is that really all that can be said for the mathematical approach? Klausner makes a persuasive case that discounting the value of future grants simply because they lie in the future is unhelpful in judging when to spend philanthropic resources. In fact, his case may have been so persuasive that it discouraged further inquiry into the subject. But as he acknowledges, late in the article, some areas may, in fact, be ripe for a present-value or cost-effectiveness analysis. That possibility hints at an open door for further inquiry and debate — a door through which surprisingly few people have tried to pass.

If we acknowledge, as he does, that “certain kinds of charity today will be more cost-effective; current and future generations will be better off if these charitable services are provided sooner rather than later,” then it would seem worthwhile to ask how one might identify these kinds of philanthropic opportunity. Are they relatively rare, as he implies, or more plentiful? Cost-effectiveness, even in the social realm, is an economic proposition more than a philosophical one. *Might there be useful models of time and value that could describe these opportunities, or at least point to where they might lie?*

Big and Short vs. Small and Long: A Hypothetical Case

To illustrate one such possibility that involves neither disease nor land conservation, nor anything particularly exotic, consider a simple scholarship program run by a small regional foundation. (The example, though simplified, is based on a real program: the Harold Alfond College Challenge, funded by the Harold Alfond Foundation, based in Maine.³ Nonetheless, the details of the Alfond program, beyond those presented here, are not relevant to this discussion, and the foundation was not involved in the preparation of this paper.) Some years ago, the foundation began offering a \$500 grant, deposited, on a child's first birthday, into a \$529 college savings plan. As the investment grew over the child's school years, the result would become large enough to pay a substantial part of the in-state tuition in that state's colleges and universities.

At first, the program stayed small, with about 5,000 children enrolled per year. That was because, to be eligible for the grant, families were required to open their own 529 accounts (a complicated and confusing process) within the child's first year of life (a complicated and demanding time). Still, the relatively low cost of running an

initiative of this size meant that the foundation could keep it up indefinitely, without threatening the budgets of its other grant programs.

The problem was that the state's college enrollment rate was affected only minimally by these scholarships. Not only were the participating families relatively few, but they were also presumably highly motivated — given that they were willing and able to set up 529 accounts and even, in close to one-third of cases, were making voluntary contributions of their own. Evaluators found that many of these children would have gone on to postsecondary education with or without the foundation's help, though some of them would no doubt have faced a much greater financial burden in doing so. Meanwhile, the foundation shouldered high marketing costs in promoting the program to families. All the while, many of the state's neediest children continued to be left out. (For partly philosophical reasons, the foundation was unwilling to restrict eligibility by income or other socioeconomic factors.)

Unsatisfied with these results, the trustees decided to go all-in on the program and make it universal. Henceforth, the foundation would open the 529 accounts itself, for every child born in the state. Families would not be required to do anything, though they would be encouraged to make voluntary contributions and would be given regular reports on the growth of their account, to encourage them to plan for college and add their own deposits to the account if they could. It became a substantially bigger program — \$6.25 million a year in foundation outlays, compared with \$2.5 million under the old version.

At this point, let's depart from the facts of the case and imagine that (a) given the higher cost of the program, the foundation could afford to offer it for only five years, not indefinitely, and (b) that the scholarships do enable many more needy families to take advantage of some level of postsecondary education that would otherwise not have been available to them. Of these two assumptions, the first is purely fictional (the Harold Alfond College Challenge is not time-limited), and the second is still being studied, with evaluations now underway. But, for discussion, let's take them both as fact.

In this case, it would seem, a present-value argument might be helpful and enlightening. Is it better, one could ask, for the foundation to spend a small amount for a small annual benefit over an indefinite number of years, or to concentrate all its resources into a short period, during which it reaches farther and accomplishes more, but then stops?

In both cases, the \$500 grant is deposited in the child's account in Year One, but we'll assume the beneficiaries don't enjoy any improvement in their economic well-being until Year 21, about when they might finish college and enter the labor market. (This is obviously a very rough estimate; some might complete a two-year degree when they are 19, others may take five years or more to finish a four-year degree.) Let's also imagine that only a small percentage of the beneficiaries earn postsecondary degrees that they would not otherwise have earned. In reality, given that the original

version of the program failed to reach the neediest families, the percentage of recipients who earned degrees primarily as a result of the program was evidently much lower than in the program's newer and larger version, where the grant reached a larger number of lower-income families. However, for the sake of making an equal comparison between the two approaches, we'll assume that both of them made a substantial difference in the higher education plans of only 10 percent of the beneficiaries.

There is ample research on the financial benefits of a postsecondary education. One such study⁴ estimates an average \$9,000 annual increase in income by earning an associate's degree and almost \$21,000 with a bachelor's degree. Let's take the midpoint and estimate an annual income boost of \$15,000 for those who get their postsecondary education primarily because of this program. We'll further assume that this increase continues throughout their working life.

With those admittedly rough and simple assumptions, we can put a dollar value on the increased earnings generated by this program in both its forms. In the original model, where families had to take steps to opt in to the program, about 5,000 children a year received the \$500 grants. In the second, universal version of the program, it was 12,500 children. (Those are real numbers.) Working through the numerical assumptions, then, the aggregate increase in income generated by the universal program would eventually rise to \$93.75 million per year, once all five years' enrollees had reached age 23 (that is, 62,500 kids x \$15,000 added annual income x 10% who truly benefited). Over 20 years, the present value of that stream of annual additions to income would be more than \$628 million. The present value of the foundation's five years of grants (\$6.25 million each year) is \$26 million. And it's important to note that the estimated social return in this case does not include any attempt at calculating ancillary benefits to the state, such as a better educated workforce, children of the program's graduates who are better provided-for and thus more productive in later life, multiplier effects from the families' additional income and greater spending power, public improvements funded by increased income-tax receipts, and so on.

The foundation's earlier, more restrictive program would eventually reach more students, only because it would have continued operating in perpetuity. But its more-limited benefits to a smaller annual number of people would mean that it would not produce as much aggregate improvement in income, measured by the present value of the stream of annual income increases, in 20 years' time — or even in 40 years. By the end of the 40th year, the more limited program would have reached triple the number of children in aggregate (at 5,000 participants per year, it would have climbed to 200,000, compared with only 62,500 in the time-limited version of the program). But at that point, by our rough assumptions, only half of them would be working age and out of school. That cohort of 100,000 would still be larger than the pool served by the time-limited program, but it would have reached that level much more slowly, with benefits for many participants occurring later in the time period.

As of year 20, the total additional income under our assumptions would be \$75 million a year in aggregate (100,000 kids x \$15,000 x 5%). The present value of the longer-but-smaller stream of additional income would be \$228.5 million. The foundation's outlays for this version of the program, at \$2.5 million a year, would be very close to what it would have spent in the time-limited version: about \$25 million. But in this case, it would have achieved only about one-third the economic impact. (A summary of all these numbers is attached.)

Because perpetuity is a long time, the longer-but-smaller program would, by our limited assumptions, eventually produce more value than the larger-but-time-limited one. Yet that point of equal benefit would lie far enough into the future that it would be impossible to predict what the postsecondary education system would look like in those distant decades, or what kinds of foundation aid, if any, would produce substantial benefits in such a system.

It is possible, of course, that a dollar spent in the future might produce *more* benefit than one spent today — for example, if the returns to education in the labor market were to shoot upward, or if the cost of some kinds of education were to drop markedly, perhaps because of online learning or other efficiencies. But it might be just as likely that a future dollar would buy less benefit — if education costs rise above general inflation, perhaps, or if future public policy provides more subsidies. (As David Swenson, manager of the Yale Endowment, has noted, the Higher Education Price Index has, over its 46-year history, “advanced at a rate approximately 1.4 percent per annum in excess of the GNP deflator.”⁵) It could be argued that this uncertainty, by itself, reduces the value of future benefits from the perspective of the present-day grantmaker, and that it would be reasonable for the grantmaker to discount future benefits at a higher rate to compensate for the risk. But this simple model takes no position on that question.

It also omits any calculation of the ripple effects of the scholarship program, alluded to earlier. Presumably some percentage of those who benefit from the program will have children who themselves are more likely to pursue postsecondary education or otherwise to succeed beyond what might otherwise have been forecast. The scholarship beneficiaries are also likely to contribute more to the wider society and economy, for example through higher spending or investment and larger tax payments, and to impose lower costs — for example, through reduced use of public aid and services. These benefits would presumably be measurable later in life and thus lie farther into the future, but they would still be achieved sooner and at a larger scale in the larger, temporary program than in the smaller, ongoing one.

Still, in a model that does not impose a risk premium for uncertainties about the future, does not assume higher inflation for grantees than for the funder's endowment, and does not attempt to value the follow-on benefits of increased education (beyond the income benefits to the graduates themselves), there does

come a time when the small-and-long approach achieves more than big-and-short. The passage of time eventually rewards the tortoise over the hare. It is also possible that, with accumulated earnings in its endowment over a long time horizon, the foundation could start with the small-scale program and expand it later. Because the foundation did not spend so much on an expensive initiative in its early years, it could devote some of its investment income to expanding the initiative at a future date. But that would still entail forgoing years of social benefits that are likely to be greater than the financial return on funds held back for future use. The foundation would be forgoing value that could be earned with confidence in the near term in order to pursue later benefits to be earned in a less-certain future.

The Search for a Model

This is a crude analysis, based on many debatable assumptions. Its purpose is not to prove the value of time limits, or even of one kind of scholarship program over another. Rather, the purpose is to suggest that, with some combination of data on a program's accomplishments and some credible measure of the social value of those accomplishments, it is possible to use a time-money analysis to compare the value of spending more now vs. spending less for a longer period of time. Depending on the type of philanthropic objective under consideration, the likelihood of its success, and the social value of a successful outcome, and perhaps other factors, it should be possible — in fact, it would be desirable — to test whether a shorter or longer time horizon would be superior.

Admittedly, these kinds of data are more readily available for some fields of activity than for others. Valuing social return is a still-emerging area of study, and some kinds of philanthropic effort will probably forever defy monetary valuation. Even so, simply developing more clarity on how to think about the relationship of time and social value, and about the proper length and size of a grantmaking initiative, would surely be an important step forward. A great deal of philanthropic analysis and consulting involves setting time horizons for using resources and evaluating impact — without much detailed thought about how those horizons should be set, or what criteria should be used in assessing them. This is a ripe area for further inquiry.

In some areas, in fact, data are both available and defensible enough to form the basis for a much more sophisticated analysis than the one attempted in this short paper. For example, The Atlantic Philanthropies spent nearly a decade, in cooperation with the Irish Government, demonstrating and testing new models of family and children's services in three low-income areas of metropolitan Dublin. The initiative incorporated scores of rigorous randomized controlled trials assessing the effectiveness of each of the preventive and early-intervention services in the demonstration, compared with the largely reactive and corrective services long favored by public programs in Ireland. Knowing, with a high degree of confidence, just how much difference each service made in children's lives — both because of the superiority of the service model and because of the timing of its application — it should be possible to compare the costs and effectiveness over time of both the old

and new approaches to at-risk children and their families. Seen another way, it should also be possible to show how much of a difference Atlantic made by demonstrating and evaluating these services in a relatively short and fixed period of time, rather than by conducting a drawn-out series of experiments and demonstrations over many years.

This is not a proposal for any particular course of study or research. It is intended, rather, as a stepping-off point for a discussion about how foundations could think more precisely and methodically about time and value, and what variables should be built into the equation. Atlantic is convening a panel of specialists in philanthropy, economics, and social return to consider ways of pursuing these questions more fully. Even assuming that the fruits of that panel will not yet be a full-scale model or mathematical technique — especially of the simple kind that Michael Klausner persuasively warned against — it could be a way of clarifying terms, creating hypothetical forms of inquiry, and beginning to provide some guidance to foundation officers and managers as they think about whether to set time limits on their work in any given field, and how to pace their outlays within those limits to achieve the greatest impact.

APPENDIX

DATA FOR TWO HYPOTHETICAL SCHOLARSHIP PROGRAMS

SCENARIO 1: INDEFINITE DURATION, BUT FAMILIES MUST OPT IN

Assume:

- 5,000 kids per year
- Foundation spends \$2.5 million a year (total of \$12.5 million; PV= \$25 m over 20 years at 10%)
- Assume 10 percent boost income above what they would have earned
- For those whose income is truly affected, the increase in earnings is \$15,000/year, and the increase continues throughout their working lives. No measurable income benefit to the other 90 percent of participants.
- The higher incomes aggregate to \$7.5 million in the year after the first participants graduate, and climb to \$150 million/year once 100,000 kids have graduated and entered the workforce (.1 x 100,000 x \$15,000).
- PV of this growing stream of aggregate income improvements over 20 years, discounted at 10% is \$457 million.

SCENARIO 2: TIME-LIMITED, BUT UNIVERSAL

Assume:

- 12,500 kids per year
- Runs only 5 years (total of 62,500 kids)
- Foundation spends \$6.25 million a year (total of \$31.25 million; PV=\$26m at 10%)
- As in the other version, 10% of kids boost nominal annual earnings, and the average income improvement is \$15,000/year throughout their working lives. No measurable income benefit to the other 90 percent of participants.
- The higher incomes aggregate to \$93.75 million/year once all the participants have graduated and entered the workforce (.1 x 62,500 x \$15,000)
- PV of the continuing income improvement over 20 years, discounted at 10%, is \$628.5 million.

¹ Peter Karoff, "Sunrise, Sunset," a PowerPoint presentation to the Philanthropy Roundtable, November 4, 2010, slide 14.

² Michael Klausner, "When Time Isn't Money," *Stanford Social Innovation Review*, Stanford University Graduate School of Business, Spring 2003.

³ The program's website provides specifics: <https://www.500forbaby.org/>

⁴ Katie Zaback, Andy Carlson, and Matt Crellin, "The Economic Benefit of Postsecondary Degrees: A State- and National-Level Analysis," State Higher Education Executive Officers (SHEEO), December 2012, p. 2.

⁵ John Ettinger, "The Pajama Game Is the Game You're In: Some Observations on the Importance of Inflation Effects on the Economics of Foundations," unpublished draft, December 18, 2015, p. 3.