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THE PRIVATE NONPROFIT SECTOR: WHAT IS IT?

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ABSTRACT

The economy's resources are allocated through a wide variety of institutional mechanisms. The decentralized profit-oriented private market and the government are the two institutions on which the bulk of economists' attention has focused. More recently, the importance of the household as a locus of economic activity has received growing attention. This paper directs attention to yet another economic sector or institutional mechanism: the private (or voluntary) nonprofit sector. Little is known about its size or importance, its role in a pluralistic system of institutions, or its behavior. Economists have only recently begun to pay attention to the role and behavior of the nonprofit organizations that the U.S. Congress has addressed itself to for a number of years.

Pointing up the great heterogeneity of organizations that are termed nonprofit, either in common usage or by the IRS, this paper focuses on the degree to which an organization's activities bestow marginal social benefits that are not captured by the organization. This "collectiveness" variable is continuous, permitting us to give a mark to each "nonprofit" organization--ranging from zero for a pure private-good provider to 100 percent for a pure collective-good provider. Thus, the paper shows that: (1) all nongovernmental organizations can be thought of as combinations of private and collective-good providers; (2) the typical private sector firm is a polar case, being a pure private-good producer; (3) some firms provide goods with a significant collective-good component, performing a role more traditionally identified with government.

By focusing attention on the degree of collectiveness, we have set forth a dimension in which firms providing otherwise heterogeneous outputs are comparable. Indeed, in these terms our traditional theory of the private market sector is a special case: whereas the firms in that sector produce goods and services of enormous diversity, the firms are homogeneous in their "degree of collectiveness"--zero.

The Private Nonprofit Sector: What Is It?

I. INTRODUCTION

There are a wide variety of institutional mechanisms through which the economy's resources are allocated. The decentralized profit-oriented private market and the government are the two institutions on which the bulk of economists' attention has been focused. More recently, the importance of the household as a locus of economic activity has received growing attention. This paper directs attention to yet another economic sector or institutional mechanism: the private (or voluntary) nonprofit sector. Little is known about its size or importance, its role in a pluralistic system of institutions, or its behavior.[1]

Private market, government, household, private nonprofit--none of these are homogeneous institutions, utilizing a single well-defined instrument; they use a versatile, adaptable class of instruments and arrangements interacting with each other and with the ethical-cultural system of the society. Government, for example, is not a single institution but a complex of legislative, administrative, regulatory, and judicial institutions that sometimes work cooperatively and sometimes at cross purposes; they may correct some private market failures yet exacerbate others, and even interfere with efficient allocational decisions in the private market (Niskanen 1971; Buchanan and Tullock 1962; Downs 1957). Government includes agencies that are ostensibly designed to handle cases of individual citizens, as well as agencies that are designed to correct the failures of other agencies--the ombudsman.

The private market is, similarly, a conglomerate. It has firms producing standardized products under competitive conditions, and differentiated goods under not-so-competitive conditions; firms dealing with strongly organized or weakly organized factor suppliers; firms producing goods for which the typical consumer is a well-informed buyer; and others producing goods (such as much of medical care and legal representation) for which the typical consumer is poorly informed--often even after the purchase--and needs to rely on such private institutional mechanisms as professional ethics codes as guarantors of quality. In short, (1) every economic sector utilizes a versatile, adaptable class of instruments that vary, however, among sectors; and (2) each of the instruments--hence, each of the institutional sectors--has its strengths and limitations as means for achieving policy objectives.

The private nonprofit sector is a conglomerate, as well, exhibiting a variety of institutional forms not all behaving in the same manner (a hypothesis to be examined below), and infirmities, while perhaps filling a niche in a pluralistic, multi-institutional system. This paper attempts to sharpen understanding and definitions of the private nonprofit sector as a step precedent to developing better and more general positive models, and to determining whether nonprofit firms--in any specific forms--merit encouragement, discouragement, or neither.

There are, thus, both the positive and normative bases for our focus on the nonprofit sector (the term <u>private</u> will be dropped henceforth). Whether our interest is in predicting or evaluating behavior of the firms in the sector, or developing public policy toward them, we need to model their responsiveness to various stimuli such as the tax, subsidy and other regulatory instruments of government, and the competition of the private for-profit and household sectors. This paper is primarily positive, not normative in orientation. It is not an attempt to judge the usefulness, in either efficiency or equity terms, of the nonprofit form of institutional organization. Rather, it is an attempt to understand better the essential characteristics of a nonprofit organization's structure as one step toward constructing models of behavior.

What is the nonprofit sector and what is a nonprofit firm? To begin with, the perspective of this paper should be made clear: My concern is with nonprofit organizations as potential mechanisms for correcting some of the efficiency failures of other forms of institutions. If we recognize the sources of private market failures and, simultaneously, the factors that limit governmental institutions' abilities to correct them--in short, if we realize that there are also systematic governmental failures (Weisbrod, forthcoming a)--the possibility that some other institutional arrangement may be capable of correcting some of the residual failures can be explored. There is no necessary presumption that organizations called private nonprofit have any such capability; our first task is to define this institutional form, and the second task is to understand (model) its behavior in order to judge (normatively) the likelihood that, when juxtaposed with the behavior of the for-profit, governmental, and household sectors, it will contribute to allocative efficiency and distributional equity goals of society.

In an earlier paper, I posited a potential role for a nonprofit sector in the context of collective-good problems (Weisbrod 1975):

given the allocative-efficiency failures of the private for-profit sector resulting from the difficulty and, at least as important, the inefficiency of exclusion when the marginal cost of supplying output to an incremental consumer is approximately zero, and given the problems that governments have in correcting those failures, some other institutional mechanism may play a useful corrective role. Whether the private nonprofit mechanism is such a corrective is a matter to be determined. What is implied, however, is that we define a subset of all nonprofit organizations (firms) that might be termed collective-good nonprofits, for this paper is directed to a clearer understanding of an institutional form that is a kind of hybrid: it is a private organization but provides collective goods, generally identified with governments. Systematic thinking by economists about private nonprofit institutional mechanisms is in its infancy; this paper is intended to help the infant crawl a bit forward.

2. HETEROGENEITY OF NONPROFIT FIRMS AND THE PROBLEM OF MODELING

There is an enormous variety of firms that are nonprofit--at least in the legal, tax sense. Were there any doubt about the fact of heterogeneity it should be dispelled by Table 1, which lists hundreds of purposes, activities, operations or types of nonprofit, and tax-exempt organizations. There are correspondingly great differences among firms in the private for-profit sector. Economists have found, however, that despite the vast differences between a private steel producer and a shoe producer, a retailer and a manufacturer, a vertically integrated

Nonprofit and Tax-exempt Organizations

Activity Code Numbers of Exempt Organizations (select up to three codes which best describe or most accurately identify your purposes, activities, operations or type of organization and enter in Part I, line 6, page 1 of the application)

Code

Religious Activities
001 Church, synagogue, etc.
002 Association or convention of churches
003 Religious order
004 Church auxiliary
005 Mission
006 Missionary activities
007 Evangelism
008 Religious publishing activities
... Book store (use 918)
... Genealogical activities (use 094)
029 Other religious activities

Schools, Colleges and Related Activities
030 School, college, trade school, etc.
031 Special school for the blind, handicapped, etc.
032 Nursery school
... Day care center (use 574)
033 Faculty group
034 Alumni association or group
035 Parent or parent-teachers association
036 Fraternity or sorority
... Key club (use 323)
037 Other student society or group
038 School or college athletic association
039 Scholarships for children of employees
040 Scholarships (other)
041 Student loans
042 Student housing activities
043 Other student aid
044 Student exchange with foreign country
045 Student operated business
... Financial support of schools, colleges, etc. (use 602)
Achievement prizes or awards (use 914)
Student book store (use 918)
Student travel (use 299)
Scientific research (see Scientific Research Activities)
059 Other school related activities

Cultural, Historical or Other Educational Activities
060 Museum, zoo, planetarium, etc.
061 Library
062 Historical site, records or reenactment
063 Monument
064 Commemorative event (centennial, festival, pageant, etc.)
065 Fair
088 Community theatrical group
089 Singing society or group
090 Cultural performances
091 Art exhibit
092 Literary activities
093 Cultural exchanges with foreign country
094 Genealogical activities
Achievement prizes or awards (use 914)
Gifts or grants to individuals (use 561)
Financial support of cultural organizations (use 602)
119 Other cultural or historical activities

Other Instruction and Training Activities
120 Publishing activities
121 Radio or television broadcasting
122 Producing films
123 Discussion groups, forums, panels, lectures, etc.
124 Study and research (non-scientific)
125 Giving information or opinion (see also Advocacy)
126 Apprentice training
Travel tours (use 299)
149 Other instruction and training

Health Services and Related Activities
150 Hospital
151 Hospital auxiliary
152 Nursing or convalescent home
153 Care and housing for the aged (see also 382)
154 Health clinic
155 Rural medical facility
156 Blood bank
157 Cooperative hospital service organization
158 Rescue and emergency service
159 Nurses' register or bureau
160 Aid to the handicapped (see also 031)
161 Scientific research (diseases)
162 Other medical research
163 Health insurance (medical, dental, optical, etc.)
164 Prepaid group health plan
165 Community health planning
166 Mental health care
167 Group medical practice association
168 In-faculty group practice association
169 Hospital pharmacy, parking facility, food services, etc.

Code

179 Other health services

Scientific Research Activities
180 Contract or sponsored scientific research for industry
181 Scientific research for government
... Scientific research (diseases) (use 161)
199 Other scientific research activities

Business and Professional Organizations
200 Business promotion (chamber of commerce, business league, etc.)
201 Real-estate association
202 Board of trade
203 Regulating business
204 Better Business Bureau
205 Professional association
206 Professional association auxiliary
207 Industry trade shows
208 Convention displays
... Testing products for public safety (use 905)
209 Research, development and testing
210 Professional athletic league
... Attracting new industry (use 403)
... Publishing activities (use 120)
Insurance or other benefits for members (see Employee or Membership Benefit Organizations)
211 Underwriting municipal insurance
212 Assigned risk insurance activities
213 Tourist bureau
229 Other business or professional group

Farming and Related Activities
230 Farming
231 Farm bureau
232 Agricultural group
233 Horticultural group
234 Farmers' cooperative marketing or purchasing
235 Financing crop operations
... FFA, FHA, 4-H club, etc. (use 322)
... Fair (use 065)
236 Dairy herd improvement association
237 Breeders association
249 Other farming and related activities

Mutual Organizations
250 Mutual ditch, irrigation, telephone, electric company or like organization
251 Credit Union
252 Reserve funds or insurance for domestic building and loan association, cooperative bank, or mutual savings bank
253 Mutual insurance company
254 Corporation organized under an Act of Congress (see also 904)
... Farmers' cooperative marketing or purchasing (use 234)
Cooperative hospital service organization (use 157)
259 Other mutual organization

Employee or Membership Benefit Organizations
260 Fraternal beneficiary society, order, or association
261 Improvement of conditions of workers
262 Association of municipal employees
263 Association of employees
264 Employee or member welfare association
265 Sick, accident, death, or similar benefits
266 Strike benefits
267 Unemployment benefits
268 Pension or retirement benefits
269 Vacation benefits
279 Other services or benefits to members or employees

Sports, Athletic, Recreational and Social Activities
280 Country club
281 Hobby club
282 Dinner club
283 Variety club
284 Dog club
285 Women's club
... Garden club (use 356)
286 Hunting or fishing club
287 Swimming or tennis club
288 Other sports club
... Boys Club, Little League, etc. (use 321)
296 Community center
297 Community recreational facilities (park, playground, etc.)
298 Training in sports
299 Travel tours
300 Amateur athletic association
... School or college athletic association (use 038)

Code

301 Fund raising athletic or sports event
317 Other sports or athletic activities
318 Other recreational activities
319 Other social activities

Youth Activities
320 Boy Scouts, Girl Scouts, etc.
321 Boys Club, Little League, etc.
322 FFA, FHA, 4-H club, etc.
323 Key club
324 YMCA, YWCA, YMHA, etc.
325 Camp
326 Care and housing of children (orphanage, etc.)
327 Prevention of cruelty to children
328 Combat juvenile delinquency
349 Other youth organization or activities

Conservation, Environmental and Beautification Activities
350 Preservation of natural resources (conservation)
351 Combatting or preventing pollution (air, water, etc.)
352 Land acquisition for preservation
353 Soil or water conservation
354 Preservation of scenic beauty
... Litigation (see Litigation and Legal Aid Activities)
... Combat community deterioration (use 402)
355 Wildlife sanctuary or refuge
356 Garden club
379 Other conservation, environmental or beautification activities

Housing Activities
380 Low income housing
381 Low and moderate income housing
382 Housing for the aged (see also 153)
... Nursing or convalescent home (use 152)
Student housing (use 042)
... Orphanage (use 326)
398 Instruction and guidance on housing
399 Other housing activities

Inner City or Community Activities
400 Area development, re-development or renewal
... Housing (see Housing Activities)
401 Homeowners association
402 Other activity aimed at combatting community deterioration
403 Attracting new industry or retaining industry in an area
404 Community promotion
... Community recreational facility (use 297)
... Community center (use 296)
405 Loans or grants for minority businesses
... Job training, counseling, or assistance (use 566)
Day care center (use 574)
Civil rights activity (see Civil Rights Activities)
... Referral service (social agencies) (use 569)
... Legal aid to indigents (use 462)
406 Crime prevention
407 Volunteer firemen's organization or auxiliary
... Rescue squad (use 158)
408 Community service organization
429 Other inner city or community benefit activities

Civil Rights Activities
430 Defense of human and civil rights
431 Elimination of prejudice and discrimination (race, religion, sex, national origin, etc.)
432 Lessen neighborhood tensions
... Litigation (see Litigation and Legal Aid Activities)
... Legislative and political activities (see that caption)
449 Other civil rights activities

Litigation and Legal Aid Activities
460 Public interest litigation activities
461 Other litigation or support of litigation
462 Legal aid to indigents
463 Providing bail

Legislative and Political Activities
480 Propose, support, or oppose legislation
481 Voter information on issues or candidates
482 Voter education (mechanics of registering, voting, etc.)
483 Support, oppose, or rate political candidates
484 Provide facilities or services for political campaign activities

Code

509 Other legislative and political activities

Advocacy
Attempt to influence public opinion concerning:
510 Firearms control
511 Selective Service System
512 National defense policy
513 Weapons systems
514 Government spending
515 Taxes or tax exemption
516 Separation of church and state
517 Government aid to parochial schools
518 U.S. foreign policy
519 U.S. military involvement
520 Pacifism and peace
521 Economic-political system of U.S.
522 Anti-communism
523 Right to work
524 Zoning or rezoning
525 Location of highway or transportation system
526 Rights of criminal defendants
527 Capital punishment
528 Stricter law enforcement
529 Ecology or conservation
530 Protection of consumer interests
531 Medical care system
532 Welfare system
533 Urban renewal
534 Busing students to achieve racial balance
535 Racial integration
536 Use of intoxicating beverage
537 Use of drugs or narcotics
538 Use of tobacco
539 Prohibition of erotica
540 Sex education in public schools
541 Population control
542 Birth control methods
543 Legalized abortion
559 Other matters

Other Activities Directed to Individuals
560 Supplying money, goods or services to the poor
561 Gifts or grants to individuals (other than scholarships)
... Scholarships for children of employees (use 039)
... Scholarships (other) (use 040)
Student loans (use 041)
562 Other loans to individuals
563 Marriage counseling
564 Family planning
565 Credit counseling and assistance
566 Job training, counseling, or assistance
567 Draft counseling
568 Vocational counseling
569 Referral service (social agencies)
572 Rehabilitating convicts or ex-convicts
573 Rehabilitating alcoholics, drug abusers, compulsive gamblers, etc.
574 Day care center
575 Services for the aged (see also 153 and 382)
Training of or aid to the handicapped (see 031 and 160)

Activities Directed to Other Organizations
600 Community Chest, United Givers Fund, etc.
601 Booster club
602 Gifts, grants, or loans to other organizations
603 Non-financial services or facilities to other organizations

Other Purposes and Activities
900 Cemetery or burial activities
901 Perpetual care fund (cemetery, columbarium, etc.)
902 Emergency or disaster aid fund
903 Community trust or component
904 Government instrumentality or agency (see also 254)
905 Testing products for public safety
906 Consumer interest group
907 Veterans activities
908 Patriotic activities
909 Non-exempt trust
910 Domestic organization with activities outside U.S.
911 Foreign organization
912 Title holding corporation
913 Prevention of cruelty to animals
914 Achievement prizes or awards
915 Erection or maintenance of public building or works
916 Cafeteria, restaurant, snack bar, food services, etc.
917 Thrift shop, retail outlet, etc.
918 Book, gift or supply store

oil company and a nonintegrated printer, all have in common the pursuit of profit. Thus, a unified theory can predict the behavior of any private for-profit firm (once its production function and prices of inputs and outputs are known).

Just as the differences among for-profit firms have been submerged by the similarities of objective functions, we should look for the essential similarities among nonprofit firms. It is notable that, to date, attempts to model behavior of nonprofit firms have dealt almost exclusively with a single type of firm in a single industry, generally hospitals (see note 1). In the for-profit sector we do not have a separate theory of behavior for each industry: why should there be one for each industry in the nonprofit sector? Why has the modeling of nonprofit behavior been so narrow and industry oriented, in such sharp contrast with the familiar, broad microeconomic theory of the decentralized private market sector?

There may be a number of answers, but one is that there has been so little attention to the similarities and differences among nonprofit organizations, that researchers have sought more homogeneous groupings, and industry has had an obvious appeal. The contrast between the breadth of our economic models of the private for-profit sector and the narrowness of our few models of nonprofit organizations reflects the corresponding contrast in the depth of research on the two sectors.

Given the emphasis in this paper on collective-good problems, I pursue the implications of distinguishing among nonprofit firms according to the degree of collectiveness of their activities. This term will be defined shortly, but for now the point is that the legally nonprofit organizations (as portrayed in Table 1) may cover a wide range in respect to how collective their activities are; that is, how much they act like governments, providing collective-consumption goods. If we could measure the degree of collectiveness we might well be able to develop a general model for all of the nonprofits that are heavily engaged in collective-goods activities, while some other model might be appropriate for nonprofits that are engaged virtually entirely in private-goods provision. Industry per se (e.g., hospitals) would not be a distinguishing characteristic. Even within an industry, nonprofit firms might vary in the balance between their private-goods and collective-goods activities and, consequently, in their behavior. But firms engaged in a similar relative degree of collective behavior might have much in common--that is, might share an objective function--regardless of their industry, just as conventional for-profit firms have behavioral characteristics in common despite the differences in their particular private-goods outputs. In sections 3, 4 and 5 a measure of the degree of collectiveness, (or its converse, a measure of the degree of privateness) of a firm's activities is discussed. Section 6 sketches some elements of behavioral models of nonprofit organizations of the collective-good and private-good types.

3. UNTANGLING THE KNOT: NONPROFIT FIRMS, TAX-EXEMPT ORGANIZATIONS, AND MEASUREMENT OF COLLECTIVENESS

The degree of collective-goodness of an organization's activities should not be confused conceptually with tax status considerations. It is true that the income tax deductibility of contributions to some but not to other nonprofit organizations alters the relative prices (costs) of giving to each. It is also true, however, that if there were no differences among organizations in the character of their outputs, there would be no reason to expect any gifts to be given to them, regardless of tax deductibility, provided that marginal income tax rates were less than 100%. That is, if, but only if, individuals perceive benefits (in any form) from gifts in the absence of tax deductibility, would the introduction of deductibility be expected to affect the level of giving? It is noteworthy that voluntary nonprofit organizations provided collective goods long before income taxation. As I have pointed out elsewhere, such organizations provided hospitals, schools, roads, and numerous other collective goods and services centuries ago (Weisbrod 1975). In short, the nature of the firm's output should be our focal point, not its tax status per se; although, of course, the two need not be independent. Favorable tax treatment might well be bestowed on firms providing particular types of outputs.

In thinking about an ideal measure of a firm's collective vis-a-vis its private goods activity, it is useful to consider a spectrum of all nongovernmental firms arrayed according to the degree of privateness (or collectiveness) of their outputs. Many firms--those that are traditionally thought of as in the private for-profit sector--would be at the pure-private pole of the array, as would organizations that, while often termed nonprofit, are captives of for-profit firms and hence essentially instrumentalities for enhancing the profits of those firms. A business trade association, for example, may be thought of as a mechanism through which profit-maximizing firms cooperate in the promotion of profitability. To treat such an organization of firms as if it were an independent firm would be similar to treating the shipping department of a manufacturing firm as a separate organization. The shipping department or the trade association may or may not produce a profit for itself, and may or may not be termed a nonprofit organization, but each may nonetheless contribute to the profitability of the firm or firms with which it is associated. Thus, we seek an ideal measure of degree of collectiveness that treats captive nonprofit firms just like for-profit firms. Such organizations may be termed <u>nonprofit privates</u>.

By contrast with nonprofit privates--nonprofit firms or organizations that are understandable as private-goods providers, mechanisms for maximizing profitability of the firm or firms with which they are associated--at the other end of the spectrum are <u>nonprofit collectives</u>, pure providers of collective goods, goods that enter (positively) the utility functions of many persons simultaneously. Firms in the for-profit sector are not likely to be found at this pole since the necessity of exclusionary practices to overcome free-rider behavior serves both to limit the private profitability of providing collective goods and the actual collectiveness of the form in which the goods are provided (as distinguished from their potential collectiveness).

If nongovernmental firms that are substantial providers of collective goods exist, it is at least arguable--if not presumptively true--that they do not behave as profit-maximizers behave. Insofar as they actually provide pure collective-consumption goods or, more generally, goods from which beneficiaries are not excluded by price, they are dependent on sources of revenue other than quid pro quo sales. These other sources are varied; they may include governmental grants, private gifts, court-awarded fees, or other types of donations, contributions or transfers. Whatever the precise form may be, the result is a set of pressure, rules, restrictions, and reward structures--incentives and constraints--that influence the ability of the firm to earn profits and the mechanisms by which it can seek those profits. The existence of constraints, of course, does not necessarily preclude maximization of profits subject to those constraints, but the point is that the behavior of these nonprofit collective organizations is not likely to mirror the behavior of firms in the for-profit sector.

This is true, a fortiori, if the preferences of entrepreneurs and managers of the nonprofit collective-goods firms differ systematically from those of their for-profit sector counterparts. If, for example, those entrepreneurs and managers who gravitate to the nonprofit collectives are more willing to trade off money income for the opportunity to engage in such collective-goods activity, then utility maximization will imply different behavior in the private-goods and in the collective-goods parts of the private sector. Profit maximization may be a far better proxy for utility maximization for private-goods producers--whether nonprofit or for-profit--than it is for nonprofit collective-goods producers.

The question next arises, can we distinguish among private firms in the degree to which they are private or collective-goods producers? Perhaps the baker, the shoemaker, the automobile producer are nearly polar cases of private sector providers of private goods, but which private firms, if any, are close to the collective-goods pole? Following is an operational measure of "privateness" or "collectiveness."

To summarize, this discussion of private and collective-goods production in the private sector has been motivated by the goal of defining and understanding a nonprofit sector for which predictive models and welfare analysis can be pursued. The assertion is that it would be useful to focus attention on the role and behavior of those organizations that, while private, provide collective goods; I term these nonprofit collective firms, and suggest that this class of organizations is important and merits our attention. Combining an attribute traditionally identified with governmental activity--provision of collective goods--with an attribute of private activity--the absence of legal compulsion to pay for benefits--non-profit collective-goods firms may be thought of as hybrids.

In an idealized textbook model, in which any failures of the private (for-profit) market that can be corrected efficiently by governmental intervention are actually corrected, hybrid organizational structures would serve no function. In a world, however, in which governmental failures also occur, other institutional mechanisms may evolve to fill niches in the arsenal of devices for achieving society's allocative efficiency and equity objectives.[2]

4. THE DEGREE OF COLLECTIVENESS OF A FIRM'S ACTIVITIES: NONPROFIT TAX-EXEMPT ORGANIZATIONS

Being interested in policy measures for correcting failures of private markets and governments, I am interested in the extent to which a firm's activities generate (external) benefits at the margin that the firm does not capture or internalize. Thus, external benefits (calling them benefits does not preclude their being negative) means those social benefits that are not internalized. References to collective goods thus reflect the difficulty that a producer of such goods has in internalizing the social benefits it generates and, thus, the external benefits that would result if those goods were provided.

Every organization or firm may be thought of as providing some combination of private and collective goods, ranging potentially from pure private to pure collective. Collective goods are simply those goods that provide a high degree of external (uncaptured) marginal benefits.[3] There is still a lack of uniformity in economics regarding definitions of collective goods, whether in technological or utility-function terms, and regarding the relationship between collective goods (however defined) and goods that provide important external benefits. In this paper, the essential characteristic of collective output among nonprofit firms is the degree to which the firm provides goods that would not be provided in optimal quantities in the private for-profit sector because the goods benefit many consumers simultaneously. An idealized textbook version of a conventional private sector competitive firm provides social benefits that are fully internalized (at the margin) in the firm's sales revenue. Such a firm would be a pure private-goods producer, and the measure of collectiveness we seek to develop should give such a firm a measure zero. Similarly, a nonprofit organization of the private type should be characterized by a zero. By contrast, a nonprofit collective organization, one that provides only pure collective goods from which many people benefit substantially without paying (there being no significant congestion problems and no exclusionary actions) should be found to have the highest measure of collectiveness, say (arbitrarily), 100. Between these limits would lie nonprofit organizations combining various degrees of privateness and collectiveness of outputs.

In this market failure context, the proposed theoretic measure of collectiveness--that is, the proposed measure of the degree of collectiveness of firm i--C_j^*, is

$$C_j^* \equiv \frac{E_j}{E_j + I_j} \times 100, \tag{1}$$

where E_j and I_j are, respectively, the external (noncaptured) and internal (captured) benefits from a marginal unit of output by firm i. C_j^* ranges from zero, for a nonprofit-private organization or a perfectly competitive firm in equilibrium, to 100 for a pure collective-goods provider, for which I_j approaches zero.[4]

The operationalization of the C^* index is not simple. One simplifying assumption that will prove useful is that marginal and average ratios of external to internal benefits are equal.

The confusing array of organizations that are deemed to be nonprofit in terms of U.S. tax law was shown by Table 1, which is a list of codes by which organizations identify their activities on the tax return (Form 990). There is little doubt that the activities range widely in terms of their degree of privateness and collectiveness. Recognition of this variation seems to be reflected in the tax law. All organizations filing Form 990 returns, for "Exempt Organizations," are not treated alike. In particular, some, but actually a minority, are permitted to accept gifts and grants that are deductible on the federal tax return of the giver. These organizations include primarily those listed in Section 501 (C) (3) of the Internal Revenue Code. From an allocative-efficiency perspective we might hypothesize--and, perhaps, hope--that these are the organizations that have the greatest degree of collectiveness at the margin, the highest C^* values. Since tax deductibility of contributions reduces the private cost to the giver, it encourages contributions and thereby expands output by the recipient organizations. The presumption that certain kinds of activities deserve expansion relative to others would seem to flow from a determination that the former activities generate more external, uncaptured marginal benefits than do the latter.

Although the tax laws encourage contributions to some organizations relative to others, the magnitude of the encouragement should be kept in perspective. The cost to the giver is never zero; even for a donor in the 70% marginal tax bracket, a dollar of giving still costs 30 cents. At the same time, an individual is not precluded from making a contribution that is not deductible and, as we will see, many such contributions are given. Thus, whereas ordinary consideration of price elasticity would suggest that contributions will be greater the lower the cost of giving, ceteris paribus, other explanations are needed for (1) the total absence of contributions to the vast majority of private organizations in the economy, (2) the giving of gifts to some organizations even though the contributions are not tax deductible, and (3) the presence of any contributions even when gifts are tax deductible, since there is some private cost and no apparent private benefit. We will return to these questions briefly later in this paper. Now we turn to our principal goal, development of a means for distinguishing among organizations according to their degree of collectiveness.

Consider three potential sources of revenue for any private, non-governmental firm or organization: sales of goods and services, membership dues, and gifts. Each source of revenue may be associated with a different set of characteristics of the organization's activities. We can expect firms (nonprofit and for-profit) normally identified with the private market sector, engaged in the provision of private goods for which exclusion is easily and efficiently practiced, to have revenue in the form of sales. Some organizations are engaged in provision of goods or services that are somewhat collective, in the sense that the marginal cost of permitting an additional consumer is approximately zero, at least over some range beyond which congestion costs appear, but exclusion is practiced easily (that is, at low cost). For such organizations (e.g., country clubs) benefits are essentially limited to members, there are no substantial external benefits, and the principal source of revenue is likely to be dues from the limited membership. Other organizations, however, provide collective goods for which exclusion is costly, impossible, or for whatever the reason, is not practiced, so that benefits are not limited to members or other financial supporters. Such organizations (e.g., in medical research or charity) may not be able, technically, to restrict their output to contributors, or if the technical capability exists, the organization may not wish to exclude, perhaps because one of its objectives is to provide certain collective goods; that is, the organization is a nonprofit collective. The result, however, is the familiar problem of private finance for collective goods. Neither sales revenue nor dues is a promising revenue source. The organization is likely to be dependent for its survival on non quid pro quo sources of revenue--contributions, gifts, and grants--from either private or governmental sources.

Direct measurement of the magnitude of external benefits of a firm's activities is costly; a proxy would, therefore, be useful, even if it were imperfect. The preceding discussion, which related the form of a firm's revenue to the character of its output, can serve as the basis for such a proxy measure. In the next section we make use of a proxy--admittedly imperfect--based on revenue source to distinguish among nonprofit organizations and thereby move closer to the point at which we can identify and model the behavior of nonprofit private and nonprofit collective organizations.

The distinctions among sales, dues, and gifts should not be drawn too sharply. That is, any observed data on these three revenue sources may not correspond precisely to the theoretic concepts presented above. Dues, for example, may combine an element of payment for an excludible collective good with an element of sales--as when membership includes receipt of a magazine, journal, newsletter, and so forth. Similarly, sales (or even dues) may include an element of gift--as when the buyer knowingly pays more than he or she would pay for the private good alone, regarding the additional sum as a contribution to the organization.

Despite the imperfections in revenue sources as proxies for outputs, the usefulness of developing a measure of the degree of collectiveness of a firm's activities suggests that such a measure be explored more fully.

In addition to the fact that reported sales revenue may include a gift component, there is another reason for regarding sales as an imperfect measure of private-goods output across firms. For some firms, sales are also an indicator of collective-goods output; for example, insofar as givers of gifts are motivated by the desire to disseminate specific outputs, sales will represent benefits to givers as well as to purchasers.[5] The point is that while for some firms, sales are only revenues from private goods, for other firms they are both revenues from private goods and measures of benefits from collective goods. Gifts and grants to a nonprofit economic research organization, for example, may indeed be intended to finance activities that will bring benefits to others, via the provision and circulation of articles and books. Insofar as such publications are sold rather than given away, the revenues, while reflecting private benefits to the purchasers, also constitute a measure of benefits to the givers.

Another conceptual issue relating to the interpretation of sales revenue as private-goods output involves the uses of any profit made on those sales. If a firm that is providing some collective goods (that is, generating external benefits) was also selling private goods, then profit on private-good sales could be a source of finance for the firm's collective goods. Competitive forces would tend to limit such profits, however, as any abnormal profit on the private goods attracted competitors. There are two reasons, however, for believing that economic profits might not be competed away: (1) the nonprofit firm may have some monopoly power (e.g., in the form of its logo that is sold on tee-shirts, umbrellas or other consumer goods), and (2) as noted above, some consumers may be willing to pay more than a competitive market price for a private good purchased from an organization that is engaged in collective-goods activities; that is, the consumer may combine, in effect, a purchase with a gift. (Consumers in sufficiently high income tax classes may also find it profitable, albeit not legal, to take income-tax charitable deductions for gifts to exempt organizations, when the gifts are actually payment for private goods. In such cases the tax system is subsidizing provision of private goods by nonprofit firms vis-a-vis for-profit firms.)

5. AN EMPIRICAL MEASURE OF COLLECTIVENESS

This section presents and utilizes an operational form of expression (1) presented earlier. The measure, termed an Index of Collectiveness, C, is seen as an index, a means of ranking organizations. Those ranked lower (closer to zero) are held to be closer to the pure private-goods pole, and those ranked higher (closer to unity) are held to be closer to the pure collective-goods pole. Such an indexing is seen as a step toward eventual modeling of the behavior of nonprofit organizations of the private and of the collective types. The collectiveness index could be applied to for-profit firms, which, as pointed out earlier, would generally receive a value of zero. Since the focus of this paper is on nonprofit firms, however, only data for them will be used.

In the earlier discussion that linked sales, dues, and gifts to private and collective goods, a major distinction was drawn between gifts, which were associated with the financing of goods that provide significant external benefits, and the other forms of revenue, which were not. Gifts were identified with the financing of goods having the greatest uncaptured external benefits.

The fact that an organization is a recipient of gifts does not imply that the giver receives no private benefits. On the contrary, the presumption is that the giver, being rational, does benefit in some direct or indirect manner.[6] Our assumption is simply that gifts are employed to finance provision of goods that bring more external relative to internal benefits than do other types of revenue. Our operational collectiveness index is

$$C_j \equiv \frac{\text{Gifts}_i}{\text{Total Revenue}_i} \times 100. \qquad (2)$$

The index ranges from zero for firms receiving no gifts, to 100 for firms receiving no revenue other than gifts.

As an initial basis for examining the variation among nonprofit organizations I turned to Gale's Encyclopedia of Associations (1975, pp. v-vi), which includes listings of thousands of nonprofit organizations. I took a random sample of organizations listed in each of the seventeen categories (Table 2 lists the categories, which I term industries), and the tax return for those organizations that file the Form 990, "Exempt Organization," was requested from the Internal Revenue Service. The collectiveness index, C, was calculated for the organizations in each category, with the expectation of finding not only variation among classes but a ranking of index values that would be positively

Table 2

Types of Nonprofit Organizations

TRADE, BUSINESS AND COMMERCIAL ORGANIZATIONS

Agricultural Organizations and Commodity Exchanges

Includes agribusiness, animal breeders, conservation, forestry, fruit and vegetable growers, livestock and poultry producers, nurseries, research

Legal, Governmental, Public Administration and Military Organizations

Includes city, county and state administration, civil defense, employment security, federal government, housing & redevelopment, legal & legislation, planning, police, property rights, taxation

Scientific, Engineering and Technical Organizations

Includes aerospace, anthropology, architecture, astronomy, behavioral sciences, biology, botany, chemistry, ecology, electronics, environmental quality, genetics, geology, information processing, meterology, nuclear physics, oceanography, paleontology, parapsychology, phenomena, population, psychology, standards, water resources.

Educational Organizations

Includes accreditation, administration, admissions, adult education, alternative education, black students, business education, cooperative education, counseling, curriculum, data education, drop-outs, evening students, extension education, financial aid, foreign students, gifted children, graduate schools, humanities, independent colleges and schools, industrial arts education, integration, international exchange, junior colleges, library education, placement, play schools, research, retired teachers, scholarship, sex education, special education, technical schools, testing, urban schools

Cultural Organizations

Includes aesthetics, American studies, antiquities, architecture, art, artists, arts and letters, authors, Black culture, books, broadcasting, comic art, composers, crafts, dance, esperanto, folklore, history, human development, Indian art and history, librarians and libraries, medieval studies, motion pictures, museums, music, philosophy, poetry, theatre, world notables

Social Welfare Organizations

Includes abortion reform, adoption, aging, alcoholism, anti-poverty, community action, correction, crime and delinquency, drug abuse, employment, family life, handicapped, homosexuality, housing, migrant workers, planned parenthood, recreation, relief, safety, selfhelp, sex information, service clubs, social work, suicide prevention, volunteerism, youth services

Health and Medical Organizations

Includes allergies, blindness, blood disorders, cancer, child health, deafness, dentistry, dermatology, donor programs, health insurance, hospitals, hypnosis, mental health, nursing, obstetrics, occupational medicine, ophthalmology, osteopathy, pathology, pharmacy, psychiatry, public health, radiology, rehabilitation, surgery, technology, therapy, veterinary science

Table 2--Continued.

Public Affairs Organizations
Includes captive nations, citizenship, civil rights, community development, consumer affairs, economics, free enterprise, human rights, international relations, peace movements, political parties, refugees, special days, United Nations, world affairs

Fraternal, Foreign Interest, Nationality and Ethnic Organizations

Religious Organizations
Includes Catholicism, ecumenism, evangelism, Judaism, missions, Protestantism, religious education, religious reform, science and religion, spiritualism

Veteran, Hereditary and Patriotic Organizations
Includes genealogical organizations

Hobby and Avocational organizations
Includes collectors and restorers, craftsmen, gardeners, gourmets, numismatists, pet breeders, philatelists, treasure hunters

Athletic and Sports Organizations
Includes archery, badminton, baseball, basketball, boating, bowling, boxing, camping, curling, fencing, fishing, golf, hockey, horse racing, lacrosse, rodeo, rowing, skating, skiing, soccer, squash, surfing, swimming, tennis, track, trail riding, underwater exploration, volleyball, wrestling

Labor Unions, Associations and Federations

Chambers of Commerce
National, bi-national and international

Greek Letter Societies
Includes federations and associations, Greek letter and non-Greek letter organizations (social, professional and honorary)

correlated with "prescientific" judgments about the collective-good ordering of organizations engaged in different types of activities. That is, at this stage in the research process, we are simply proposing a measure--in effect, a definition. As such, it cannot be right or wrong; it can only be "more useful" or "less useful." For now, its usefulness can be judged by whether it ranks organizations in accord with subjective judgments about the relative public interest or external benefits component of its activities. Ultimately its usefulness will be determined by the insights it offers and the testable predictions that flow from them. The reason for seeking a measure of collectiveness for nonprofit organizations is the hypothesis that to understand the behavior of organizations that are called nonprofit, either in common parlance or in the sense defined as "exempt organizations" by the tax code in the United States, it is necessary first to distinguish between private and collective nonprofit organizations. Later, distinct models of behavior must be developed and tested. In sum, nonprofit organizations are too heterogeneous to be examined as a single class, whether the examination is for the purpose of predicting behavior or making normative judgments about their contribution to social objectives. But only when behavioral models that distinguish between private and collective nonprofit organizations are developed will the usefulness of our collectiveness index be resolvable. Section 6 contains some notes on the kind of models that would appear to be useful for each polar type of profit organization.

Table 3 presents estimates of collectiveness index values for seventeen industries in which nonprofit firms function, and Table 4

Table 3

Index of Collectiveness, 1973-1975

Type of Organizations		Collectiveness Index (C)[1]	Sample Size[2]
1.	Cultural	90	28
2.	Religious	71	32
3.	Public Affairs	47	29
4.	Social Welfare	41	40
5.	Agricultural	41	50
6.	Educational	34	33
7.	Legal, Public Administration and Military	20	50
8.	Veteran, Hereditary and Patriotic	12	45
9.	Athletic and Sports	11	28
10.	Honor Societies	9	51
11.	Scientific, Engineering and Technical	6	51
12.	Ethnic	3	37
13.	Labor Associations and Federations	3	70
14.	Trade, Business and Commercial	2	58
15.	Health[3]	2	35
16.	Hobby and Avocational	1	20
17.	Chambers of Commerce	0	27
	Total	20	684

[1]Gifts as percentage of total revenue.

[2]Excludes organizations for which tax returns were incomplete and those for which photocopies of the tax returns were illegible.

[3]The collectiveness index for this group is affected in a major way by three organizations; each of which has at least ten times the total revenue of any other organization in the group, and each of which has a collectiveness index of 1 or less. Excluding those three the index for the group would be 12.

Table 4

Frequency Distribution of Collectiveness Indexes

Collectiveness Index	Number of Classes
0 - 10	8
11 - 20	3
21 - 30	0
31 - 40	1
41 - 50	3
51 - 60	0
61 - 70	0
71 - 80	1
81 - 90	1
91 - 100	0
	17

summarizes those values. Although I believe the principal use of the index is to rank, the index may be useful as a cardinal measure, in which case the variation in degree of collectiveness is impressive. The seventeen industries range from zero to 90, and nearly half (eight) of the nonprofit industries receive collectiveness indexes of under 10.

The operational version of the collectiveness index, C, is a function of monetary receipts only. By omitting in-kind receipts it introduces a bias, but the nature of the bias is to some extent known. While a measure of full revenue--monetary revenue plus the market value of nonmonetary, in-kind receipts--would surely disclose some cases of understatements of full sales and full dues because of payments made in-kind, the major effect would be on gifts. This is so primarily because of volunteer labor, which amounts annually to billions of dollars of donations.[7] Hard information about the distribution of these in-kind gifts among organizations is, I believe, nonexistent, but there seems to be little doubt that volunteer labor (as well as transfers of other resource inputs at below-market prices) is concentrated among those nonprofit organizations that engaged in activities that are commonly held to be charitable, philanthropic, or public interest. Rarely, if ever, does one hear of people donating services to ordinary private sector firms such as General Motors, Exxon or Macy's, or even to such nonprofit organizations as chambers of commerce or country clubs. Without additional data we might guess that in-kind donations are positively correlated with monetary donations (gifts).

The result of limiting the collectiveness index to monetary flows is, therefore, to understate both the numerator and the denominator of

C, for any given organization by the same absolute quantity. At both the lower and upper limits of C, where the firm receives either no monetary gifts or all of its monetary revenue as gifts, the C index is unbiased.

Generally, however, the C index is a biased estimate of C*. If, to consider one plausible case, in-kind gifts were assumed to be a fixed percentage of monetary gifts, then the absolute downward bias of C would be maximum for organizations with C values around 50 (%). If, for example, the full value of gifts to an organization was uniformly 20% greater than the value of its gifts in monetary form, then the following table shows the relationship between the C values as calculated from monetary data and the values as calculated from full-gift data ($\hat{C}$) for hypothetical firms having various C values:

C	$\hat{C}$
0	0
10	12
50	55
90	92
100	100

Since the estimated C values vary systematically by industry (Table 3) the omission of in-kind giving might conceivably lead to changes in rankings. More likely, however, the inclusion of full-giving data, if available, would have virtually no effect on the index values for the low-value and high-value industries while increasing the index values for the middle-value industries, leaving the rankings little changed. But this will remain conjecture until data on industry-specific nonmonetary receipts can be obtained.[8] The balance of this paper utilizes the C index based on monetary values alone.

In a heuristic effort to examine the validity of the proposed collectiveness index, the following set of organizational vignettes is presented. The descriptions of real organizations were prepared by the organizations themselves. The organizations described in Table 5, together with their respective collectiveness indexes, were not selected randomly, but on the basis of the quality of the descriptions--how easy it is for the reader to judge the extent to which the organization is essentially a private or collective-good provider--or, in some cases, on the basis of the well-known character of the organization.

The variety of organizations that are nonprofit in both the IRS and the Gale's Encyclopedia sense is highlighted by Table 5. A trade association and an association of professional tennis players have a collectiveness index of zero. A professional fraternity that sponsors awards for scientific achievement and has a committee concerned with the Boy Scouts gets an index of 10. An economic research organization has an index of 32. An organization that operates a library and museum has a collectiveness index of 68. A Ralph Nader organization gets an index score of 86, and an educational television station, 95. The C index does seem capable of distinguishing among nonprofit organizations, doing so in a manner that appears to correlate positively with a ranking of organizations by the degree to which they bring benefits to persons other than those who support the organization financially. I invite the reader to decide whether his or her subjective judgment as to the relative external-benefit (or public interest) character of these organizations would correspond to the rankings in Table 5 (or even the cardinal measure, if the indexes were so interpreted).

Table 5

Selected Nonprofit Organizations, Descriptions and Collectiveness Indexes, 1973-75

Organization and Description	Collectiveness Index (C)
General Aviation Manufacturers Association Members: 33. Manufacturers of general aviation airframes, engines, avionics and components. Seeks to create a better climate for the growth of general aviation.	0
United States Professional Tennis Association Members: 1900. Professional tennis instructors and college coaches; membership also includes sporting goods salesmen and producers and wholesalers of tennis equipment. Seeks to improve tennis instruction in the United States. Maintains placement bureau.	0
Alpha Chi Sigma Members: 33,500. Professional fraternity, chemistry. Sponsors awards in chemistry, chemical engineering, and service to the fraternity. Committees: Boy Scout Activity.	10
Descendants of the Signers of the Declaration of Independence Members: 810. Lineal descendants of a signer of the Declaration of Independence; includes seniors (627 adults over 18 years of age) and juniors (267). Places tablets at birthplaces, homes, and graves of signers; contributes toward restoration and preservation of Independence Hall and other historic monuments. Awards annual scholarship to boy or girl descendant.	22
National Planning Association "Independent, nonpolitical, nonprofit organization, to encourage joint economic planning and cooperation by leaders from agriculture, business, labor, and the professions." Committees: Agriculture; America's Goals and Resources; British-North American (sponsored with C.D. Howe Research Institute of Canada and British North American Research Association); Business; Canadian-American (sponsored with C.D. Howe Research Institute); International; Labor.	32
Aerospace Education Foundation "For the education of the public at large to a greater understanding of aerospace development, and the dissemination of information concerning new accomplishments in the field of aerospace development and aerospace education."	51

Table 5--Continued.

Organization and Description	Collectiveness Index (C)
George C. Marshall Research Foundation, Inc. Operates George C. Marshall Library. The Library includes a museum section, open to the public, that includes personal possessions of the Marshalls, photographs, cartoons, clippings, flags, an electric map of Allied progress in World War II, and various exhibits. The Foundation is assembling, indexing, and classifying records relating to U.S. military, political, and diplomatic history, to be housed in the library; the collection includes more than 16,000 books and many thousands of documents, periodicals, microfilms, and tape recordings.	68
Public Citizen, Inc. Formed by Ralph Nader to support the work of citizen advocates. Requested contributions through paid advertisements in thirteen publications. By May 31, 1972 had received over a million dollars from more than 62,000 public citizens. Contributions have been used to support projects and for grants to citizen organizations. Projects supported by Public Citizen (Tax Reform Research Group, Retired Professionals Action Group, Public Citizen Litigation Group, Health Research Group, Citizen Action Group) work to provide effective citizen advocacy on the more pressing problems at the least cost by using the services of volunteers, keeping expenses as low as possible, and hiring dedicated professionals who are willing to work long hours for modest salaries.	86
Boscoe Pound-American Trial Lawyers Foundation Conducts research and educational activities and supports those carried out by others, including work directed toward the improvement and development of a more qualified trial bar, the better functioning of the adversary and jury systems of trial, and, in general, making the law more viable in meeting the needs of individual citizens in a modern, democratic society. Sponsors annual Chief Justice Earl Warren Conference, undertaking discussions of vital social issues. Produces and distributes law enforcement teaching films in cooperation with the Department of Justice. Maintains library of 8000 volumes on general law, including the personal library of the late Boscoe Pound, former dean at Harvard Law School.	92
Educational Broadcasting Corporation Owner and licensee of WNET/Channel 13, "the principal public television station in New York City." Produces programs distributed by the Public Broadcasting Service (PBS) to 223 noncommercial television stations in the U.S., Hawaii, Guam and Puerto Rico.	95

The activity-code information, gleaned from the Form 990 tax returns, permits us to classify organizations more finely than the seventeen classes in Table 3. Each tax-exempt (nonprofit) organization was asked to "select up to three codes which best or most accurately identify [its] purposes, activities, operations or type of organization. . . ." (Table 1 shows the activity codes that could be listed on the tax return.) Some organizations did not list any code, but a considerable majority did comply. Table 6 utilizes the activity-code information to show that many industry groupings mask considerable variation in degree of collectiveness within industries. For example, while the Public Affairs industry as a whole averages 47 on the collectiveness index, one subsector, Instruction and Training (other than schools and colleges) has an index of 75, and another subsector, Advocacy, has an index of 18. Table 6 includes all industries as defined in Table 3, that had at least two subsectors as defined by activity codes, containing five or more organizations. The eight industries excluded from Table 6 were, in general, more homogeneous than the nine included.

A few additional illustrations from Table 6 highlight the differences in degree of collectiveness within industry classes. Among agricultural organizations we find that Breeders Associations--which, a priori, I would characterize as adjuncts of profit-maximizing firms and would expect to have a low collectiveness measure--do have a $\underline{C}$ index of zero. By contrast, Conservation, Environmental and Beautification Activities, have an index of 49, among the higher values observed. Similarly, those honor societies that provide scholarships have a collectiveness index of 42, while those that do not, and that characterize themselves as Fraternity or Sorority, have an index of only 7.

Table 6

Collectiveness Indexes, 1973-1975

Organization Type	Activity Code 1 (1)	Collectiveness Index (2)	Sample Size (3)
Public Affairs	all	47	29
a. other instruction and training activities	120-149	75	10
b. advocacy	510-559	18	5
Social Welfare	all	41	40
a. other instruction and training activities	120-149	58	6
b. activities directed to other organizations	600-603	4	5
Agricultural	all	41	50
a. breeders associations	237	0	12
b. business and professional organizations	200-229	36	9
c. conservation, environmental and beautification activities	350-379	49	6
Legal, Governmental, Public Administration and Military	all	20	50
a. business and professional organizations	205	1	11
b. employee or membership benefit organizations	260-279	1	7
c. other instruction and training activities	120-149	20	12
Veteran, Hereditary and Patriotic[2]	all	12	45
a. patriotic activities	908	23	14
b. veterans activities	907	23	8
c. cultural, historical or other educational activities	60-119	18	18
d. historical site, records or reenactment	062	12	6
Athletic and Sports	all	11	28
a. sports, athletic, recreational and social activities	280-319	12	10
b. business and professional organizations	200-229	0	6
Honor Societies	all	9	51
a. schools, colleges and related activities: fraternity or sorority	36	7	31
b. schools, colleges and related activities: scholarships	40	42	8

Table 6--Continued.

Organization Type	Activity Code 1 (1)	Collectiveness Index (2)	Sample Size (3)
Scientific, Engineering and Technical	all	6	51
a. other instruction and training activities: publishing activities	120	9	14
b. professional association	205	12	13
c. scientific research activities	180-199	4	19
Ethnic	all	3	37
a. employee or membership benefit organization: fraternal beneficiary, society, order, or association	260	1	12
b. cultural, historical or other educational activities	60-119	26	5

[1] See Table 1.

[2] One large organization, The Colonial Dames of America, dominates this class. It has a collectiveness index of 5 (%), and is not included in any of the sub-classes because it listed no activity code.

Industry, in the sense described in Table 3, may or may not be a useful way of thinking about organizations, given our goal of identifying organizations by their degree of collectiveness. We turn next to the question of whether the IRS activity codes or the Gale directory have captured more homogeneity of collectiveness in their industry classifications. Table 7 shows the index values for organizations that are in the same class of IRS activity codes even though they are in different industry groupings in the Encyclopedia groupings that are used in Table 2. Table 7 also discloses considerable variance, as did Table 3. It is not surprising, perhaps, that "Business and Professional Organizations," for example, should vary considerably in their collectiveness indices, depending on the nature of the business or profession.

The variance in the degree of collectiveness of organizations that are nonprofit in a tax sense is shown even more sharply by Figure 1, which shows the distribution, by the C index, of organizations which can all accept tax deductible gifts. (While some organizations not included in Section 501 (C) (3) of the Internal Revenue Code can also accept gifts that are deductible on the donor's federal income tax, all 501 (C) (3) organizations are able to accept tax deductible gifts.) Nonetheless, Figure 1 shows that more than a third (38%) of those organizations actually receive no gifts at all. The median organization receives 25% of its total revenue as gifts.

A Modified Collectiveness Index

It might be argued that sales of private goods by nonprofit organizations are means by which the objectives of the organizations are financed,

Table 7

Collectiveness Index Values for Organizations in Different Industry Groupings but Same Activity Code Classes, 1973-1975

Activity Code Class	Number of Organizations	Industry Group	Collectiveness Index
Cultural, Historical or Other Educational Activities (Codes 060-119)	18	12	18
	3	13	3
	10	4	63
Business and Professional Organizations (Codes 200-229)	12	8	32
	18	9	36
	6	14	0
	21	16	0
Employee or Membership Benefit Organizations (Codes 260-279)	7	9	1
	54	15	1
Sports, Athletic, Recreational and Social Activities (Codes 280-319)	6	13	0
	10	14	12
Advocacy (Codes 510-559)	5	5	18
	5	6	4

For list of activity codes, see Table 1. For list of industry groups, see Table 2.

Calculations from U.S. tax returns, Form 990.

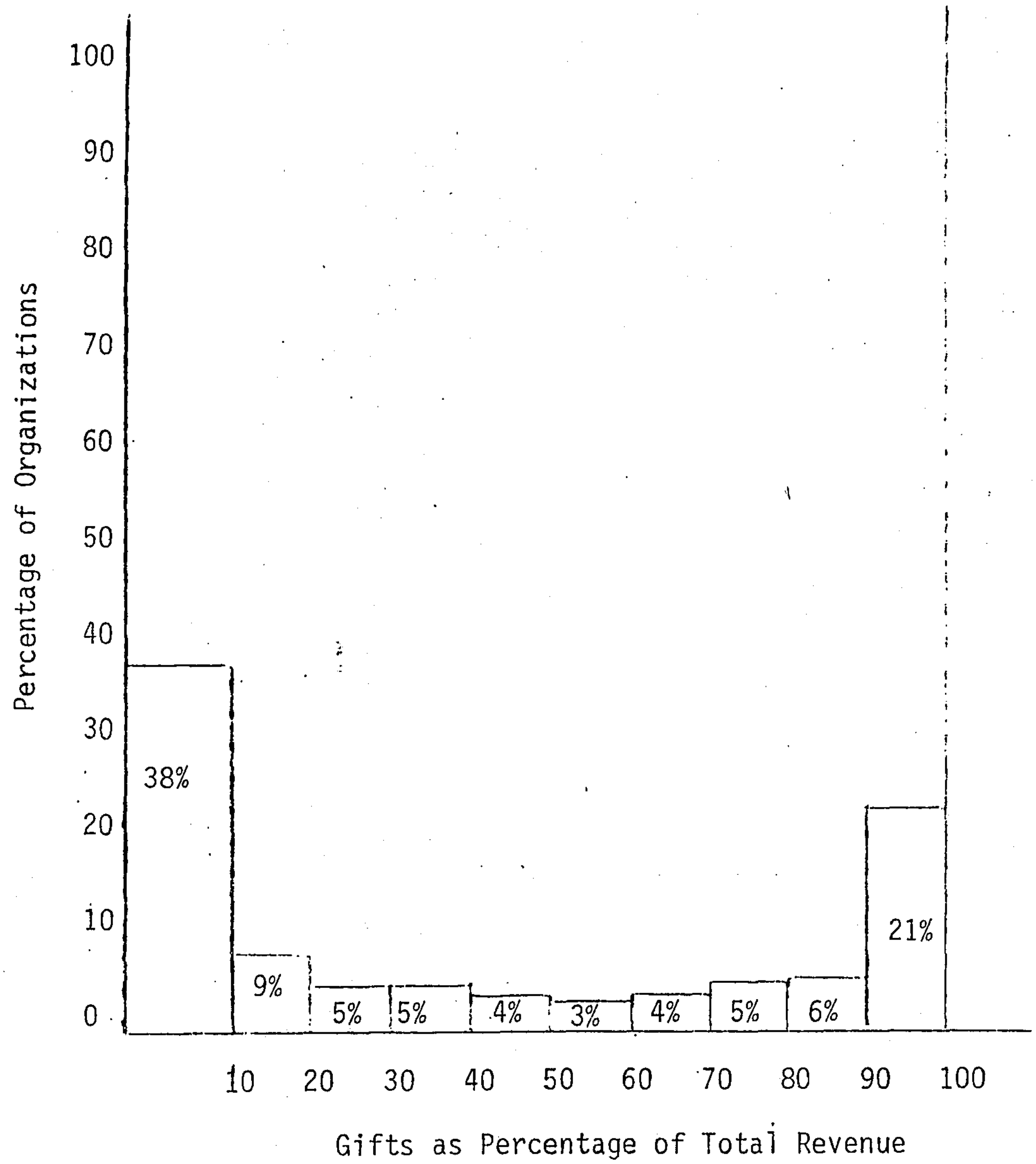

Figure 1. Degree of Collectiveness of Nonprofit (in a tax sense) Organizations. Random sample of 274 Form 990 tax returns.

and that those objectives are of two types: (1) the interests of members of the group, and (2) the interests of a wider group, of which members may be a small part. The distinction between (1) and (2) corresponds to the difference, discussed earlier, between the uses of revenues from dues and from gifts. If we continue to identify dues and gifts with these internal and external benefits, but now identify sales with fund raising to support those activities, then another measure of collectiveness is suggested, one that regards all nonprofit organizations as devices for supporting activities of type (1) or (2) in varying degree. One such modified index is

$$M_i \equiv \frac{\text{Gifts}_i}{\text{Gifts}_i + \text{Dues}_i} \times 100. \qquad (3)$$

Gifts revenue are used again to proxy collective-goods output, and dues revenue are used to proxy outputs that are collective only for members. The _M_ index would give a value of zero to an organization that collected dues but received no gifts, and a value of 100 to an organization that received no dues revenue but some gifts. Because the index disregards sales revenue it is undefined for the limiting case of a firm--rare among nonprofits--that has revenue only from sales, and none from either dues or gifts. It is useful, however, in concentrating attention on the two sources of revenue that distinguish the organizations that are conventionally termed nonprofit from ordinary private sector profit-oriented firms, which have revenue only from sales of private-type goods.

One undesirable property of the _M_ index is that it gives the same collectiveness score to an organization for which private good sales constitute an overwhelming proportion of the firm's total revenue, and another organization, with the same ratio of gifts to dues, that has no sales revenue at all. Consider, for example, the following two hypothetical organizations (revenues are stated in thousands):

Organization	Sales	Dues	Gifts	Total	Gifts/ Total (C)	Gifts/ Gifts & Dues (M)
1	$950	$ 5	$ 45	$1000	4	90
2	0	100	900	1000	90	90

The two organizations have the same M index but vastly different C indices. Firm 1 receives 95% of its revenue from sales; firm 2 gets none from sales, and 90% from gifts. Organizations that differ so much in their relative dependence on sales and gifts are not likely to be describable by the same behavioral model. This observation explains both my preference for the more comprehensive measure of collectiveness, C, and the difficulty that economists are likely to have in modeling nonprofit firm behavior until the degree of collectiveness of the entire organization's activities is recognized. Nonprofit hospitals, for example, now receive only some 2% of their total revenues from gifts, while nonprofit educational organizations receive about 40% of their total revenues as gifts. Corresponding differences in behavior can be expected.

Table 8 arrays the seventeen types (industries) of nonprofits according to the M index. The higher the score the greater the degree to which the organization's activities are deemed to bring external benefits. It is noteworthy that the industry rankings using the M and the C indices (Tables 8 and 3) are quite similar. Indeed, the Spearman coefficient of rank correlation indicates that the rankings are not statistically different from one another. The only classification changing by more than three ranks is

Table 8

Modified Collectiveness Indexes, 1973-1975

Type of Organization	Modified Collectiveness Index[1]
1. Cultural	99
2. Religious	95
3. Public Affairs	92
4. Scientific, Engineering and Technical	74
5. Social Welfare	73
6. Educational	61
7. Agricultural	56
8. Legal, Governmental, Public Administration and Military	37
9. Veterans, Hereditary and Patriotic	22
10. Honor Societies	18
11. Athletic and Sports	17
12. Ethnic	16
13. Health	9[2]
14. Hobby and Avocational	4
15. Labor Associations	4
16. Chamber of Commerce	4
17. Trade, Business and Commercial	3

[1] Gifts/gifts plus dues.

[2] If the three large and extreme "outlier" observations are excluded, the $\underline{M}$ index for the remaining 32 organizations in this group would be 28, (see also note 3 to Table 3).

"Scientific, Engineering and Technical," which moved from position 11 on the C index to position 4 on the M index.

Whichever index, C or M, is used, a firm's revenue from gifts is held to be a useful index of the external benefits generated by its activities; that is, of its collective-good output. It would be useful, however, to go beyond the measurement of the volume of gifts, to inquire into their source. The point is that gifts (grants) from governmental sources may have a different influence on behavior than grants from private sources, and, indeed, different sources of grants even within the overall governmental or private categories may well imply different incentives and constraints, hence, different degrees of external benefits.

Our analysis of the Form 990 tax returns points up the fact that an organization's tax status and either of the measures of collective goodness are by no means perfectly (rank) correlated. There are only two statuses that an organization can have with respect to the income tax deductibility of donor's gifts to it. Either the gifts are deductible or they are not (although there are upper limits on individual tax-deductible gifts, and these limits vary somewhat among types of organizations). Depending on the type of organization, as shown in the tables above, tax status is essentially dichotomous; in general, virtually all organizations in a given industry are tax deductible (that is, gifts are deductible on the giver's federal income tax return), or virtually all are nontax deductible. Nonetheless, collectiveness indices show considerable variation. There are, in short, many tax deductible organizations that receive no gifts, and there are nontax deductible organizations that receive substantial gifts. Important examples of the latter are the Sierra Club, Common Cause, and Ralph Nader's Public Citizen, all of which are nonprofit organizations that do not have deductible status because of their lobbying activities; yet, each receives sizable amounts of nontax deductible gifts to finance their collective-good activities.[9]

Further work is necessary to develop measures of collectiveness. The data utilized here do appear, however, to be promising sources. As economic research moves on to the development and testing of models of nonprofit behavior it will be important to distinguish more carefully than has been done in the literature to date, among the wide variety of nonprofit organizations. This paper argues that variety should be judged by the criterion of the degree to which the organization is involved in provision of collective-type goods--goods bringing substantial external benefits;[10] the observation of nongovernmental organizations providing collective goods requires further theorizing.

6. MODELING NONPROFIT FIRMS: SOME CONJECTURES

As we seek to model behavior of nonprofit firms, our data suggest that we should think of those firms as hybrids of private-good and collective-good producers. We have found that legally-nonprofit firms vary tremendously in their hybrid status. If, to begin with, we think of the firm's objective function as being separable into private and collective components, then it is likely that the former can be modeled as an ordinary profit-maximizer. The collective component is in need of further analysis. This section contains some preliminary thoughts on the ingredients of useful predictive models for organizations having high and low collectiveness indices.

It may or may not be appropriate to regard the hybrid's objective function as separable; decisions on behavior of the private and the collective-good divisions of the firm's activities may well be interdependent. For example, there may be demand interdependencies between the private and collective goods, as when the price at which the firm can sell private goods is a function of the quantity and quality of its collective-good output. This is another way of saying that the purchaser of the firm's private-good output may be making a contribution to the firm's collective output in the form of a price greater than that which the purchaser would be willing to pay if he were simply purchasing the private good alone. In addition, there may be production interdependencies between the private and collective outputs, as when the collective good information (e.g., about product quality or political candidates) can be embodied as an input to a saleable private-good, book.

As research on behavioral models of nonprofit firms proceeds, it may be useful to begin by considering pure cases--the pure private-good nonprofit and the pure collective-good nonprofit. Consideration of hybrids will wait.

Modeling Nonprofits with High Collectiveness Indices

The behavior of a private firm that provides collective goods would seem to hinge on its struggle for finance. Unable (or unwilling) to exclude consumers, as private firms normally do, and unable to compel payment, as governmental providers of collective goods normally do, how can the private provider of collective goods sustain itself?

Reference to the tax subsidies that are available to some nonprofit organizations--presumably greatest for the producers most likely to use the subsidies to provide collective goods--is at best a partial answer. These subsidies, which reduce costs of operating and the private cost of donating, do not bring either type of cost down to zero, or explain why donors give any money (or goods) at all. Why are there any such gifts, and how is the magnitude of gifts related to the degree of collectiveness of the firm's actual or promised activity?

The donations function for a private provider of collective goods is analogous to the for-profit firm's demand function. What are the key arguments in a donation function? Of particular importance, I hypothesize, is information in the form of publicity regarding the collective-good activities of the firm. The speculation that publicity is an important determinant of donations is discussed somewhat more fully elsewhere (see Weisbrod and Komesar, forthcoming) and additional study is under way, but the argument may be summarized briefly here by pointing to the benefits of publicity to a private provider of collective goods.

First, unless the collective good is in a form that individual donors can easily (costlessly) detect--which is generally not the case--the prospective donor will be discouraged from giving to finance an activity that may or may not actually be provided in the intended fashion. In the private-good case this is not a problem, but it can be when collective goods are involved. If, for example, a firm claims to be a provider of income transfers in cash or in subsidies (e.g., to the indigent for legal assistance or in educational scholarship aid), prospective donors, whether ordinary consumers or wealthy foundations, may welcome evidence that donations to the organization are actually used that way. Publicity can provide that evidence.

Second, publicity for the firm's collective-good activities may have the effect of shifting its production function outward, permitting it to increase its output with the same inputs. This would be the case if, for example, the firm was in the business of providing a stronger voice for interests that are underrepresented because of group-organizational costs; the effectiveness of Ralph Nader--and any funds given to him--is doubtless enhanced by his being widely known. Such publicity-induced productivity enhancement can be expected to strengthen efforts at fund raising.

Third, publicity identifies the managers of the nonprofit firm as being productive, and this will tend to increase the managers' marketability if they should contemplate switching jobs (as the publicity from publishing does for an academic scholar).

The hypothesized importance of publicity as an argument in the objective function of a collective nonprofit may also be related to a demand by consumers for trust, for dealing with a seller in whom they can be more confident of being treated honestly. Such a demand is important for a subset of commodities for which the consumer is ill-equipped to judge for himself or herself the quality of what is being purchased. Charity and research are but two illustrations of activities of this sort that nonprofit organizations engage in. In general, the role of the collective nonprofit firm as an agent providing trust when information is costly to obtain is worthy of further attention.

Thus, a firm having a high index of collectiveness is, I believe, not a private-goods producer that chooses a higher or lower rate of output than would maximize profit, thereby eliminating profits; rather, it is a collective-goods producer that sells the collective good at a price less than average cost (or gives it away), financing the privately unprofitable sales out of gifts. The gifts may be in the form of an explicit gift in cash or in-kind, or in the form of a sales or dues payment that is above-market in the sense that the payment exceeds what the consumer would be willing to pay were it not for the desire to contribute to the organization's collective-good activities. The ability of the firm to obtain gifts may be a function of the collective benefits of the organization's activities, presumably at the margin, and of the information that the organization can convey regarding the collective benefits. A collective nonprofit, thus, may be thought of as confronting a market demand that is a function of both ordinary demands by consumers of its outputs, and donation-demands, willingness of donors to pay for the provision of particular collective goods, the bulk of benefits from which would accrue to third parties.

One other element in a collective nonprofit's behavioral model appears to be the preferences of its manager-entrepreneurs to accept lower-than-market returns in exchange for the utility from engaging personally in public interest, external-benefit generating activities. In effect, the manager-entrepreneurs of collective nonprofits may be giving in-kind gifts.[11]

Modeling Nonprofits with Low Collectiveness Indices

Nonprofit organizations with low collectiveness index values, posited to be providers of essentially pure private goods, would appear to be one of the following two types: (1) adjuncts or captives of profit-maximizing firms, or (2) profit maximizers in disguise. In the case of types 1, illustrated by trade associations of for-profit firms, my presumption is that the nonprofit firm behaves precisely as a profit maximizer, spending funds obtained (from its members, the demanders of its output) up to the point where the members' profits are maximized. These captives may thus appear to be different from the standard profit-maximizing firms: the captive maximizes not its own profits but the profits of its "captors." There is another way, however, to view the behavior of the captive firm. It may be thought of as maximizing its own profits (as well as its captors') or, in this case, minimizing its own losses. The captive may be seen as undertaking activities that produce profits for its captors, up to the point at which the marginal loss to the captive is equated with the marginal profit to the captors; the resulting loss for the captive is then made up by contributions (gifts, grants, subsidies, etc.) from the captor, so that the captive breaks even. Thus, its profit is maximized at zero after the owners (captors) earn at least a normal profit on their investment (including subsidy) in the captive. Subsidies from the captors are, in effect, variables in the firm's donation-demand function.

In the case of type 2, observed profits would be zero only by virtue of the organization's paying above-market prices to the factor suppliers who own it--managers or partners, suppliers of capital, suppliers of land, etc. The above-market rewards they obtain are simply profits paid out as wages, land rents, and so forth.

7. CONCLUSION

Interest in the nonprofit sector has grown as its importance has come to be recognized and, although little firm evidence over time exists, as its importance has increased. Special tax treatment of nonprofit organizations has raised questions about the efficiency of those organizations as mechanisms for achieving social goals. Economists have only recently begun to pay attention to the role and behavior of the nonprofit organizations that the U.S. Congress has addressed itself to for a number of years.

Fundamental to any normative assessment of the nonprofit form of institution is the development of a positive theory of its behavior; armed with such a theory it would be possible to predict the responses of the firms in this sector to a given stimulus (set of incentives) with given constraints. But a satisfactory positive theory of behavior by nonprofit firms is not enough.

Equally fundamental to a normative assessment is a theory of what society would regard as desirable behavior. This requires a more general theory of institutional failures than we now have. If the private nonprofit mechanism has even a potentially useful role to play in the economic system, it must be because it is superior in a benefit-cost analytic sense to the other institutional mechanisms with which it competes. These include the private for-profit sector, the government sector, and the household sector.

The present paper has set out to sharpen thinking about precisely what organizations we should have in mind when we think about the nonprofit sector from either a positive or a normative perspective. It has noted that the handful of attempts to model the behavior of nonprofit firms have each examined a particular, rather specific type of firm; thus, we have models of nonprofit hospital behavior and of nonprofit college behavior. These output-specific models are in sharp contrast with our model of the profit-maximizing private market economy, which embraces the steel industry and the baking industry, the retailer and the manufacturer, the farmer and the industrialist, the importer and the exporter.

The development of a comprehensive behavioral theory of the nonprofit firm and sector does require the drawing of distinctions among the wide variety of organizations that have come to be termed nonprofit, but the useful distinctions do not seem to be based on industry. This paper has suggested that (1) all nongovernmental organizations can be thought of as combinations of private and collective-good providers; (2) the typical private sector firm is a polar case, being a pure private-good producer; and (3) some firms provide goods with a significant collective-good component, performing a role more traditionally identified with government.

The paper has proceeded to present and apply an operational measure of the degree of collectiveness of any firm's activities, ranging from zero for a pure private-good producer, to 100 for a pure collective-good producer. An underlying axiom is that the direction required for research is to model the behavior of the private producer of collective goods. Such firms do exist--in varying degree--and they are, presumptively, not describable as profit maximizers. By focusing attention on the degree of collectiveness, we have set forth a dimension in which firms providing otherwise heterogeneous outputs are comparable. Indeed, in these terms our traditional theory of the private market sector is a special case: whereas the firms in that sector produce goods and services of enormous diversity, the firms are homogeneous in their degree of collectiveness--zero.

NOTES

[1]For information on hospital behavior see Pauly and Redisch (1973); Lee (1971); and Newhouse (1970). For information on the university see Levy (1968); and James (1976a). For information on the nonprofit sector in general, see James (1976b); Weisbrod (1975); and Niskanen (1971, especially ch. 9).

[2]For an elaboration of this theme, see Weisbrod (forthcoming b).

[3]An alternative to the term collective goods might be corrective goods. The latter term, while unconventional, would highlight the degree to which a firm's activities served to correct failures of the profit-maximizing and governmental sectors. The failures that might potentially be corrected would include those resulting from collective-consumption goods but also from other sources, such as monopoly. A profit-maximizing nondiscriminating monopolist would be in equilibrium when the firm captured only part of the marginal social benefit of its output; that is, the monopolist provides marginal benefits that it does not capture (in the amount of the difference between price and marginal revenue). The efficiency case for subsidizing or otherwise bringing the monopoly to expand output is in essence the same as the efficiency case for subsidizing private providers of collective goods—the difference between private and social benefits (costs). I use the term collective goods in this paper because my main interest is in the role of nonprofit organizations as providers of collective-type goods, not in their potential or actual role in correcting other sources of allocative efficiency failures.

[4]It is interesting to note that a profit-maximizing monopolist seller of pure private goods would have a C* index greater than zero, by virtue of the deviation between marginal revenue (internal marginal benefits) and demand price. The difference would represent marginal external benefits. In short, the C* index may be thought of as a market failure index.

[5]I am indebted to Kenneth Wolpin for a stimulating conversation in which this point evolved.

[6]The benefits may, for example, have been derivative of the benefits to the eventual recipient; see Hochman and Rogers (1969).

[7]For a summary of recent estimates of the magnitude of volunteer labor, see Weisbrod and Long.

[8]The number of hours worked by volunteers, classified by subsector, has been estimated by the U.S. Department of Labor (1969) for 1965.

[9]Their _C_ index values are

Sierra Club	19
Common Cause	31
Public Citizen	86

However, most of Common Cause's national revenue is from its affiliates, and this revenue is shown as dues (actually, "gross dues and assessments, from members and affiliates"); to some extent such dues are actually gifts.

[10]It is clear that to some people the activities of these groups are collective _bads_; that is, the activities enter negatively into the individuals' utility functions.

[11]This theme is being developed in another paper by the author, now in preparation. Data for lawyers in private practice and in collective nonprofit public interest law show strongly that this is the case, see Weisbrod and Komesar (forthcoming).

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