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GROWTH OF THE NONPROFIT
SECTOR: IMPLICATIONS FOR
PUBLIC EMPLOYMENT AND
PUBLIC FINANCE

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ABSTRACT

Employment in the public sector cannot be understood apart from the employment in the part of the private nonprofit sector that provides collective-type goods. The nonprofit sector exists in significant part because of governmental decisions that encourage this alternative to increased direct governmental provision. Estimates developed in this paper suggest that employment in the nonprofit sector in the United States is between 8 and 10 million, compared with some 15 million for total federal, state, and local employment, and less than 3 million for the federal government alone.

In other countries the forms of institutions may differ and the term nonprofit may not be used, but private nonmarket organizations do exist, and they are more important than is commonly realized. In any country, recognition of the relationship between the government and nonprofit sectors highlights the choice that exists for consumer-citizens; they are not limited to government as the only institutional mechanism through which to obtain collective-type goods. The evidence suggests that reliance on the nonprofit sector is growing.

Growth of the Nonprofit Sector:
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I. INTRODUCTION

The size of the public sector has long interested economists and political scientists, and, indeed, politicians and citizens.¹ This Congress of the International Institute of Public Finance directs attention to employment in the public sector, employment being one measure of size. I will focus here not on the measurement of size but on the ambiguity of the concept of employment in the public sector, and on the relationship between the public and the private nonprofit sectors.

If a person works for and is paid by a governmental agency (case 1), that worker would be defined by most people as being employed in the public sector. Such a sharp distinction, however, between government employees and private sector employees is not likely to be useful for most purposes. If, for example, a government agency were to write a check to a private firm for the expressed purpose of that firm's hiring someone to work for the government agency (case 2), we would probably not find it meaningful to call this private sector employment, although customary usage does exactly that. Thus, when political leaders want to demonstrate their ability to cut government employment by, say, temporarily stopping new hiring, one inevitable result is an increase in governmental purchase of consulting services from private firms. Such an apparent substitution of private for governmental employment results from drawing a sharp distinction between close substitutes. In either

case 1 or 2, government pays for the employment and the workers involved perform virtually the same tasks. An economics (choice-based) approach to the definition of government employment would suggest that close substitutes be recognized and, depending on the purpose at hand, either that they be encompassed in a single definition or that the concept of employment be more broadly defined encompassing governmental and near-governmental, just as we have done with various measures of the money supply.²

Close substitutes for government employment take still other forms. One involves employment in private firms that are either heavily subsidized by government (e.g., Lockheed or Chrysler--case 3) or that sell much or all of their output to government (e.g., a firm that collects garbage under contract with a municipal government, or a munitions producer that deals exclusively with a government military agency--case 4). In what sense is it important to distinguish between a case in which government establishes its own enterprise to provide some goods or services (as in case 1) and a case in which it chooses to purchase those goods from one or more private firms (as in cases 2 or 4)?

The distinction between governmental production of a commodity and governmental finance through nongovernmental enterprises can be illustrated for the case of research and development (R&D). Table 1 shows the flow of funds to R&D in the United States. It highlights the distinction between the source of funding of production and the sectoral locus of employment. We see that the U.S. federal government financed 21,798 million of R&D funds in 1977, but only \$6,500 million--30 percent--of the funds

Table 1

Funds for Performance of Research and Development and
Basic Research in the United States, 1977 (in millions)

Performance Sector	Source of Funds				Total
	Federal Government	Industry	Universities and Colleges	Other Nonprofit Institutions	
Federal government	6,500				6,500
Industry	10,500	17,250			27,750
Universities and colleges	3,811	134	883	305	5,133
Other nonprofit institutions	987	124	0	306	1,417
Total	21,798	17,508	883	611	40,800

Source: Adapted from data in Statistical Abstract of the United States, 1977
(Table 1011, p. 612).

were actually spent within the federal government. Thus, assuming that the distribution of employment can be approximated by the distribution of expenditures, only some 30 percent of the employment to which the federal government's support of R&D gave rise actually occurred in the federal government. Half (48 percent) of the federal support led to employment in the private for-profit sector (industry). An additional 22 percent of the federal funds manifested themselves as employment in the private nonprofit sector (universities and colleges plus other nonprofit institutions), although some portion of that led to employment in universities and colleges that is governmental.

There are still other means available to government to affect the allocation of resources, including employment. While the close substitutes for governmental provision noted above involve governmental expenditures, some alternatives do not. Government can, for example, provide tax subsidies which, by reducing tax liabilities, encourage private provision of goods as an alternative to governmental provision (case 5). Government can also regulate the private sector (case 6), as it does in the public utility area, so as to require provision of particular outputs, and as it does in the environmental and occupational safety and health area, where it requires (or precludes) adoption of particular production processes when labor inputs are involved.

A final example of close substitutes for public provision of goods and services is the subject of this paper. This involves activities in the private nonprofit sector (case 7). In earlier work (Weisbrod, 1975) I set forth and tested a model in which heterogeneous demands for public (collective) goods lead a democratic government to provide less than the

amounts wanted by the high demanders; this undersatisfied demand gives rise to nonprofit sector provision. Building on this foundation, the present paper attempts to show that employment in the nonprofit sector--much of which is engaged in activities that consumers regard as close substitutes for governmentally provided goods--is relevant to a full understanding of the status of, and changes in, governmental employment.

To summarize, there are two important areas outside government in which anyone interested in public sector employment must look: first, there exists a variety of nongovernmental, private sector firms--in the United States they are largely in the nonprofit sector but in other countries they may have other designations and forms--that produce close substitutes for governmental goods and services. Second, decisions by government can greatly affect the sectoral balance of employment. Governmental decisions to (a) produce particular goods and services, (b) purchase them from nongovernmental firms, or (c) regulate, mandate, tax or subsidize private firms to produce them, can all achieve the same output results,³ but the resulting distribution of employment between the government, the private proprietary (for-profit), and the private nonprofit sector can differ enormously. If alternative (a) is followed, the employment would be governmental; if (b) were followed, the employment would appear in the private proprietary or nonprofit sector, depending on which sector the government chose to deal with; and if course (c) were followed, the employment would be distributed across the sectors in various ways--with some appearing in government regulatory or other administrative agencies and some in the two private sectors that would produce the goods and/or employ people to engage in the required activities and reporting (e.g., occupational safety).

Because the sectoral distribution of employment would vary with these governmental decisions whether or not the economic consequences varied, data on employment by government, over time and across countries, can give distorted pictures of governmental employment. The precise nature of what constitutes an undistorted picture, however, depends on the analyst's objective. All that can be said in general is that the concept of government employment is subject to a variety of quite reasonable and useful interpretations, but the narrow concept of persons on a government payroll is of limited value.

We turn next to the private nonprofit sector. This sector's goods and services are partly financed by government but even when financed by other sources they are often close substitutes for direct governmental provision in the areas of education, health, charity, scientific research, and other social welfare activities.⁴ Thus, our focus on the nonprofit sector is designed to show that when we consider the activities of this sector we obtain a rather different impression of the size and growth rate of public employment.

II. THE NONPROFIT SECTOR AND THE GOVERNMENT

There are a number of industries that include both nonprofit firms and governmental organizations. Education, hospitals, nursing homes, and charity are but a few examples. In some of these multisector industries private for-profit firms are also found, but previous research suggests that these firms produce distinctly different types of outputs than do the governmental and nonprofit organizations. (See, for example, Bendick, 1978, on schools, and Lee and Weisbrod, 1978, on hospitals.) Proprietary

Table 2

Assets of Nonprofit Organizations in the United States, Selected Years, 1953-1975

Year	Total (\$ billion)		Ratio to	
	Current	1972	GNP	National Assets
1953	42	72	0.115	0.015
1958	64	101	0.137	0.016
1963	90	135	0.146	0.017
1968	133	164	0.147	0.017
1973	210	181	0.154	0.018
1975	243	176	0.151	0.018

Source: Goldsmith (1979, Table 53).

Table 3

Percentage of Assets of the Federal Government, State and Local Governments, and Nonprofit Organizations in the United States, 1953 and 1975

Year	Federal Government	State and Local Governments	Total Government	Nonprofit Organizations
1953	7.5	5.6	13.1	1.5
1975	3.9	8.5	12.4	1.8

Source: From data in Goldsmith (1979, Table 67, p. 178).

firms appear to be engaged in the provision of private-type goods--e.g., schools that provide job-specific training and hospitals that provide standard medical services to individual patients--while governments and private nonprofit organizations are more heavily involved with public-type goods such as research.

In this section we present a variety of data to demonstrate the importance of employment in the nonprofit sector relative to the governmental employment with which it is, in significant measure, a substitute. Regrettably, employment data for the nonprofit sector are extremely scarce. Thus, we must try to infer such information from various incomplete data sources. We utilize data on revenues and assets and on employment for particular industries as a basis for inferring aggregate employment in the nonprofit sector. No one form of the data described below presents a clear picture, but together they show the sizable and growing importance of the activity and employment of nonprofit firms.

Assets of Nonprofit Organizations--The National Income Accounts

Goldsmith (1979) has estimated the assets of nonprofit organizations annually for 1953 through 1975, using the U.S. national income accounts definition of that sector. Not all of the organizations included are providers of substitutes for governmental goods and services, but until more detailed data become available, Goldsmith's data can help to develop the picture of the importance of the nonprofit sector. Table 2 shows the relative size of the nonprofit sector for selected years. The sector's assets have grown more rapidly than GNP, rising from 11.5 percent of GNP in 1953 to more than 15 percent by 1973, and they have also grown, though

Table 4

Assets of Nonprofit and Proprietary
Organizations, United States, 1971-1975 (in billions)

Year	Nonprofit Assets		Proprietary Assets		Tax Deductible Nonprofits as Percentage of Proprietary Organizations
	Total	Tax Deductible	Corporations	Partnerships	
	(1)	(2)	(3)	(4)	(5)
1971	\$127.1	\$74.4	\$2,889	\$135.4	4.1
1972	136.7	87.4	3,257	176.9	3.9
1973	157.2	88.2	3,649	185.1	4.3
1974	176.3	98.6	4,016	283.4	4.4
1975	195.6	106.6	4,287	235.5	4.2

Sources: Columns 1, and 2 tabulated from IRS Form-990 Data.

Column 3 from U.S. Department of Commerce, Bureau of the Census (1975, p. 497; 1979, p. 563).

Column 4, Internal Revenue Service (1971, p. 153; 1972, p. 96; 1973, p. 200; 1974, p. 199; 1975; p. 310).

Table 5

Number of Nonprofit and Proprietary Organizations, 1967-1979
(in thousands)

Year (June 30)	Nonprofit Organizations		Proprietary Organizations	
	Total	Tax-Deductible**	Corporations	Partnerships & Proprietorships
1967	309	*	1,534	10,032
1968	358	*	1,542	10,130
1969	416	138	1,659	10,349
1970	*	*	1,665	10,335
1971	*	*	1,733	10,704
1972	535	*	1,813	11,165
1973	630	*	1,905	11,687
1974	673	*	1,966	11,936
1975	692	*	2,024	11,955
1976	763	260	2,105	12,454
1977	790	276	*	*
1978	810	294	*	*
1979	825	304	*	*

Source: Nonprofit organizations, U.S. Department of Treasury, Internal Revenue Service (1968, p. 9; 1969, p. 14; 1972, p. 13; 1974, p. 32; 1977, p. 141; 1978, p. 101; 1979, p. 70).

Proprietary organizations, U.S. Department of Commerce, Bureau of the Census (1971, p. 459; 1975, p. 490; and 1979, p. 553).

Note: Number of tax-deductibles above is more specifically the number of 501(c)(3)'s. The figure was published in TCAR only for those years shown in Annuals 1969 and 1978.

*Not available.

**501(c)(3) Organizations under the Internal Revenue Service Code.

Table 6

Number and Assets of Nonprofit Organizations Filing
Tax Returns by Deductibility Status, 1971-1976

Year	Tax-Deductible Organizations		Non-Tax-Deductible Organizations	
	Assets (billions)	Organizations (000)	Assets (billions)	Organizations (000)
	(1)	(2)	(3)	(4)
1971	\$ 74.4	81.8	\$52.7	152.4
1972	87.4	94.4	49.3	170.8
1973	88.2	106.7	69.0	181.2
1974	98.6	107.2	77.7	174.6
1975	106.6	103.0	89.0	162.4
1976	122.2	111.8	71.5	165.3

Source: Our calculations from Internal Revenue Service data tapes.

NOTE: The total number of nonprofit organizations far exceeds the number appearing in columns 2 and 4, which include only those organizations filing Form 990 tax returns. Those with expenditures under \$5,000, and most churches, were not required to file. The total number of nonprofit organizations is shown in Table 5.

less dramatically, as a share of total national assets, from 1.5 percent to 1.8 percent.

With the nonprofit sector contributing less than 2 percent of national assets, one might erroneously dismiss the sector as inconsequential. The evidence that nonprofit organizations own 1.8 percent of U.S. assets takes on added importance when one realizes that the federal government "owned" 3.9 percent of U.S. assets at the end of 1975, and state and local governments some 8.5 percent more (Table 3). Thus, assets of the nonprofit sector equal 15 percent of all government assets in the United States and nearly 50 percent of those of the federal government.

While the nonprofit sector has been growing in relative size, the federal government has been declining. The federal government controlled 7.5 percent of national assets in 1953, and its share has fallen steadily; by 1975 it was 3.9 percent (Table 3). Even when the growing state-local government sector is considered, we find that the assets of the aggregate federal-state-local government sector declined, from 13.1 percent of national assets in 1953 to 12.4 percent in 1975, while the nonprofit sector's share was growing. If changes in employment are approximately proportional to changes in assets, employment in the nonprofit sector is growing relative to the economy as a whole, and it is already large compared to employment in the federal and state-local government sectors.

Internal Revenue Service (IRS) Tax Return Data

Each organization that has tax-exempt, nonprofit status in the United States is required to file a tax return (unless it is a church with no

"unrelated business income," or unless it has revenue and disbursements under \$5,000 in the given year--\$10,000 beginning in 1977). Table 4 derived from the IRS tax files, shows not only the growth of assets of all nonprofit organizations (col. 1) but also the assets of the subset of those organizations for which donations are deductible on income tax returns (col. 2). The latter groups, judged to provide services with a particularly large public-good component, are likely to provide particularly close substitutes for the collective-type (public) goods of the government sector. A comparison of the assets of the tax-deductible organizations with the assets of the private corporate and partnership sector of the economy (cols. 3 and 4) shows that these nonprofits have grown at essentially the same rate over the 1971-1975 period, the only years for which comparable data are available.⁵

Not only are the assets of the nonprofit sector growing rapidly, but the number of organizations is growing even faster--a possible harbinger of an accelerated growth rate of employment in the years ahead. Long-period time series data have been impossible to find, but Table 5 shows data beginning in 1967. Over the 1967-1976 decade, the total number of nonprofit organizations (including nonfilers) increased from 309,000 to 763,000--by 118 percent--while the number of proprietary corporations increased by 37 percent and the number of partnerships and proprietorships increased by 24 percent. During the second half of the decade, the number of nonprofits grew by 43 percent, while the total number of nonproprietary organizations in all forms grew by only 12 percent.

If we consider only the nonprofit organizations that are required to file tax returns, we see that the growth has occurred among the tax-deductible nonprofits (Table 6). Indeed, the number of non-tax-deductible

filers actually declined between 1972 and 1976. The values of assets for both the deductible and nondeductible organizations--those which, by virtue of their having been granted preferred tax treatment, are presumptively closest substitutes for governmental organizations--is especially notable.

Between 1969 and 1978 the number of organizations for which tax-deductible status has been given grew from 137,500 to 293,900--an increase of 114 percent (Internal Revenue Service, 1969-1978). Since, as noted above, these are the organizations whose public-interest (collective-good) activities presumably gave rise to the special tax treatment, the associated increase in employment may be a substitute for governmental employment; if employment in the nonprofit sector grew at the same rate as the increase of the number of organizations, that sector would have experienced an employment increase of 114 percent which would have made direct governmental employment lower than it would have been if such growth in the nonprofit sector had not occurred. (During the 1969-1978 decade direct governmental employment increased by 23 percent, from 12.7 million to 15.6 million, full time plus part time [U.S. Department of Commerce, Bureau of the Census, 1973, 1979].)

Inferring Employment in the Nonprofit Sector from Revenue and Asset Data

We employ the following methodology in this section: Ratios of (1) employment to organizational revenue, and (2) employment to organizational assets are estimated for various sectors of the economy; then those ratios are used as multipliers of corresponding revenue and asset data for the nonprofit sector to obtain estimates of employment in the nonprofit sector. The

ratios we have been able to estimate are in Table 7. Use of revenue data is dictated by its availability together with the belief that the level of employment of a firm or sector bears some reasonably consistent relationship to revenue.

If the nonprofit sector has the employment-revenue ratio of the economy as a whole, the sector's 1976 revenue of \$143 billion⁶ would imply full-time equivalent (FTE) employment of 7.9 million persons. If the nonprofit sector had the higher employment-revenue ratio of the service sector of the economy, this would imply nonprofit sector employment of 10.3 million. Either employment figure is at least 60 percent of the total federal, state and local government civilian FTE employment of 13.1 million in 1976, and two and a half times or more the level of federal government civilian employment, 2.8 million (U.S. Department of Commerce, 1978, p. 55).

It is likely, however, that the nonprofit sector has a lower ratio of employment-to-revenue than does the service sector as a whole, and, thus, the 10.3 million figure is probably high. This tentative conclusion is suggested by the limited industry data available by ownership type shown in Table 7. Among hospitals (panel IVA), the nonprofit sector has the lowest ratio of employment to assets. Similarly, the nonprofit sector in art museums (panel VIII) has a lower ratio of employment to revenue. The data for schools (panel V) do not distinguish between nonprofit and private for-profit schools, but the private schools as a whole have a markedly lower ratio of employment to revenue than do the government schools. On the other hand, nursing homes (panel IVB) display the opposite picture, the nonprofit sector having a higher ratio of employment to revenue than either the governmental or private for-profit sectors.

Table 7

Revenue, Assets, and Full-Time Equivalent Employment,
Various Economic Sectors, United States, 1976

Sector, Industry or Ownership Type	Ratio of Employment to Revenue (in hundreds of thousands of dollars/year)	Ratio of Employment to Assets (in hundreds of thousands of dollars/year)
	(1)	(2)
I. Economy as a whole	5.50	
II. Service sector	7.19	
III. Government enterprises	6.31	
IV. Health	6.33	
A. Hospitals		4.85
1. Government		5.92
2. Proprietary (for-profit)		4.78
3. Nonprofit		4.38
B. Nursing homes	9.29	
1. Government	9.42	
2. Proprietary	8.71	
3. Nonprofit	10.10	
V. Education	5.03	
1. Government	5.35	
2. Private	3.69	
VI. Social services	12.16	
VII. Legal services	11.22	
VIII. Art museums	5.73	
1. Government	5.91	
2. Nonprofit	5.41	

Sources:

Row I-IV, VI, VII: U.S. Department of Commerce (1978, pp. 53, 55).

Row IV: A. American Hospital Association (1977, pp. 6-9).

B. Calculated from data in Wisconsin's Nursing Homes, Facility Characteristics (various years).

Row V: U.S. Department of Commerce (1978); National Center for Education Statistics (1978, Table 16, p. 19); Bendick (1979, Table 2.5, pp. 55-56).

Row VIII: U.S. Department of Commerce, Bureau of the Census (1978, Table 409, p. 249).

It is dangerous to generalize from this limited number of industries, although the nonprofit components of the hospital, education, and nursing home industries are substantial. Nonetheless, given the paucity of employment data for the total nonprofit sector, it is probable that the nonprofit sector as a whole has fewer employees relative to revenue than does the service sector as a whole.

If the nonprofit sector had the lower employment intensity (i.e., ratio of employment to revenue) of government enterprises, 6.31 in 1976 (Table 7), then aggregate employment in the nonprofit sector would still have equalled 9.0 million--12 percent of the 1976 FTE labor force, 74.4 million.⁷

Volunteer Labor

If a count were taken of those members of the labor force who were employed in the nonprofit sector, it would result in a substantial underenumeration of actual labor inputs. Volunteer labor--because it receives no explicit wage--is not included in labor force statistics.

Government tax policies--public finance measures--influence the aggregate amount of donations in all forms and also the choices donors make between donating labor time and money (or goods). Thus, government policy influences the flow of private resources to the nonprofit sector providers of collective goods, and in the process it affects the sectoral levels of employment. That is, to whatever extent the nonprofit sector provides goods and services that substitute for governmentally provided goods and services, governmental policy toward the nonprofits will shift employment between the governmental and private nonprofit sector because of the effects of those government policies on donations of money and time. The analyst

who is interested in public-sector employment and its close substitutes should recognize these forces. As we examine briefly the market for volunteer labor, a number of relevant points emerge for understanding the relationship between the nonprofit and public sectors:

1. In 1973, the latest year for which data on volunteer labor are available, about 6 billion hours of labor were volunteered in the United States with a market value of \$29 billion (Morgen et al., 1976, p. 160). By 1976 the hours volunteered had a market value that could be estimated conservatively at \$30 billion. Thus, if all volunteer workers had spent their volunteer time working for pay in the market sector and then donated their earnings, the nonprofit sector would have received some \$30 billion in additional money donations in 1976; its receipts of money (and property) donations would then have been double the \$25.9 billion of actual revenue that was determined from the same survey (Morgan et al., 1976, Table 2, p. 162). If this imputed value of labor were added to the total explicit revenue of the sector, then the employment calculations in section C, above, would imply an additional 1.8 million FTE workers--about 20 percent of the total nonprofit sector employment of 9.0 million estimated above using the government-enterprises basis.⁸ Thus, donor decisions to volunteer time rather than to give money lead to systematic and significant understatement of employment in the nonprofit sector.

2. The preceding estimates of the effect of volunteer labor on conventionally measured employment in the nonprofit sector exaggerates the effects somewhat. The principal reason is that all volunteer labor does not go to private nonprofit organizations; some goes to governmental institutions such as schools, hospitals, and nursing homes, and some to

private proprietary institutions. Even rough data on the allocation of volunteer time between governmental and private nonprofit organizations are not available; it appears, however, that the nonprofits are the principal recipients. Some fragmentary data have been estimated for the allocation of volunteer labor to a particular subset of organizations, long-term care institutions in the United States; these include nursing homes and institutions for the physically handicapped, psychiatric, mentally handicapped, children, and "other." Based on a sample of 928 out of the total of 23,608 such organizations in 1976, we find that the distribution of volunteers (not necessarily volunteer hours) is as follows: nonprofit institutions, 65.1 percent; governmental institutions, 8.3 percent; and proprietary institutions, 26.7 percent.⁹ The relatively large percentage of volunteers who are associated with the proprietary institutions is, quite likely, not characteristic of proprietary organizations generally. It is notable that even for these six types of institutions the number of volunteers per institution is markedly smaller for the proprietary institutions than for either the governmental or private nonprofit institutions--0.95 volunteers per proprietary institution compared with 1.94 per government institution and 3.10 per private nonprofit institution.¹⁰

3. Even if all volunteer labor went to private nonprofit organizations, all of that labor would not be substituting for governmental employment. A considerable portion of volunteer labor goes to churches, which have no governmental counterparts in the United States. According to the 1973 survey cited earlier, 43 percent of all volunteer time went to churches (Morgan et al., 1976, Table 50, p. 231).

4. The supply of volunteer labor, or, more generally, the allocation of individuals' time between market labor, volunteer labor and "leisure" is

itself a function of governmental actions--for example, tax policy. In recent work (Menchik and Weisbrod, 1980) we found that the amount of time volunteered varied directly with the marginal income tax rate that the individual faced (as well as with the person's income).¹¹

5. Next we briefly discuss the relationship between the estimate of uncounted volunteer labor presented in this section and the estimate of 9.0 million total employment in the nonprofit sector presented above, based on ratios of employment to revenue. Assume, first, that money revenue of the nonprofit sector is independent of the amount of volunteer labor, that--contrary to an assumption made above--people who volunteer time would not donate any additional money if they were precluded from volunteering time. It would follow, then, that with revenue of nonprofit organizations given, the estimate of nonprofit sector employment, 9.0 million, constitutes our best guess about total nonprofit-sector employment, inclusive of volunteer labor. This would be the case if volunteer labor were equally as productive as market labor. If it were more (less) productive, then we would expect a correspondingly lower (higher) level of employment in the nonprofit sector than the 9 million.

The main point is that it is not appropriate simply to add the quantity of volunteer labor to the quantity of labor inferred from the data on nonprofit sector revenue. If organizational outputs generate the revenue noted earlier and given that inputs generate the outputs, then a knowledge of revenues implies a quantity of inputs. Only insofar as a person-hour of market and of volunteer labor are not perfect substitutes would the previous estimates of employment based on organizational revenue need to be corrected to account

for volunteer labor. There are some reasons to believe that volunteer labor is inferior to market labor--e.g., harder to discipline and organize--but in other respects it may be superior--e.g., more dedicated to the organization's "cause." The two sets of factors tend to cancel out, but the matters deserve to be studied more deliberately.

Employment in the Public and Nonprofit Sectors in Selected Industries

Industry data on employment by "ownership" sector are extremely limited. Some revealing data, however, are presented in Tables 8 and 9 for hospitals and schools in the United States.

The hospital industry provides a particularly powerful illustration of the incomplete picture of employment that one obtains by overlooking the private nonprofit sector. Indeed, the bulk of hospital employment is in the private nonprofit sector. Table 8 shows the growth of employment in governmental and private nonprofit hospitals between 1950 and 1977. Aggregate employment in nonprofit short-term hospitals has been relatively stable at approximately three times the level of employment in all state and local government hospitals, and approximately double the employment of all government hospitals, including federal.

An earlier work, (Lee and Weisbrod, 1978) provided evidence that the nonprofit hospitals are close substitutes for government hospitals in terms of the services provided. The nonprofit hospitals, as nonprofit organizations in most industries, originated prior to explicit governmental actions supporting them, but they have benefitted from substantial governmental support through grants (e.g., under the Hill-Burton hospital construction program), explicit subsidies (e.g., receipt of free local

Table 8

Full-Time Equivalent Employment in Governmental, Private Nonprofit
and Proprietary Short-Term Hospitals in the United States, 1950-1977

(in thousands)

Year	Private Nonprofit	Proprietary	State and Local Government	Federal* Government
	(1)	(2)	(3)	(4)
1950	473	41	148	169
1955	597	41	188	192
1960	792	48	241	186
1965	1,011	70	306	199
1970	1,387	97	444	216
1975	1,714	139	546	256
1977	1,863	159	559	278

Source: Columns 1, 3, and 4, U.S. Department of Commerce, Bureau of the Census (1975, p. 79, Table 122; 1979, p. 112, Table 173).

Column 2, American Hospital Association, (1978, p. 6).

*Includes long-term, which constitute some 5 percent of the totals shown.

Table 9

Enrollments, Public and Nonpublic Schools,
in the United States, 1930-1977^a

(in thousands)

Enrollments	1930	1940	1950	1960	1970	1975	1977
Grades 1-8							
Public	20,555	18,237	18,353	25,679	29,996	28,137	27,087
Nonpublic	2,255	2,096	2,575	4,286	4,100	3,700	3,400
Grades 9-12							
Public	4,399	6,601	5,725	8,485	13,022	14,132	14,310
Nonpublic	341	458	672	1,035	1,400	1,400	1,400
Higher Education							
Publicly controlled	533	797	1,355	1,832	5,112	6,838	7,275
Privately controlled	568	698	1,304	1,384	2,024	2,185	2,314
Expenditures (% of GNP)							
All Schools ^b							
Public	2.1	3.0	2.7	4.0	6.1	6.4	6.0
Private	0.4	0.5	0.7	1.1	1.4	1.5	1.3

¹Source: U.S. Department of Commerce, Bureau of the Census (1975, p. 111, Tables 175 and 176; 1979, p. 136, Tables 213 and 214).

^aPrior to 1960, excludes Alaska and Hawaii.

^bIncludes kindergartens and a variety of quantitatively-small types of schools not included elsewhere in this table.

public services), and tax subsidies (e.g., income-tax deductibility of donations of money and goods).

Turning to the education sector we see in Table 9 the quantitative importance of the private sector, the vast bulk of which consists of nonprofit organizations.¹² While not a perfect substitute for governmentally provided education, private education is surely a substitute; the extent to which a democratic society chooses one form or another of the substitutes available--that is, one sector or another to provide its education activities--is sensitive to governmental decisions regarding taxation, subsidization, qualitative dimensions of educational activities, and so forth.

The top panel of Table 9 portrays enrollments rather than employment. Assuming, however, that the ratios of employment to enrollments are not greatly different,¹³ the table suggests that total employment in the nonprofit sector (for which the "nonpublic" sector is a proxy) is about 13 percent as great as governmental employment for grades 1-8, about 10 percent as great for grades 9-12, and 30 percent for higher education. The table also portrays both some remarkable changes over time and some remarkable stabilities in the relative size of the two sectors. In 1950, they were of essentially the same size in higher education, but by 1975 the public sector was more than three times as large. For both elementary and secondary schools, however, there was comparatively little change in sectoral balance over the nearly 50-year period.

The bottom panel of Table 9 shows the growth of schools in terms of expenditures as a percentage of GNP. Between 1930 and 1977 the share of GNP taken by education tripled from 2.5 percent to 7.3 percent; the

relative size of the public and nonpublic sectors, however, changed little, remaining on the order of 4 or 5 to 1 (public to nonpublic) throughout.

III. CONCLUSION

I have argued that employment in the public sector cannot be understood apart from the employment in the part of the private nonprofit sector that provides collective-type goods. Research should continue to detect the varied forms that private nonmarket organizations take in each country. In the United States the nonprofit sector, while little-studied, is relatively easily identified, at least in the sense defined by the Internal Revenue Service.

In other countries the forms may differ and the term nonprofit may not be used, but private nonmarket organizations do exist, and they may well be more important than is commonly realized. In a previous study of nonprofit activity in the area of legal representation we were repeatedly told that there were no counterparts to the nonprofit public interest law firms in the United States. Our survey, however, turned up rather similar organizations in France, Italy and Japan (Sward and Weisbrod, 1980). Other examples have appeared in a recent newspaper account which reported on a 10-year-old private consumer-protection organization in Malaysia. The Consumer's Association of Penang, a Ralph Nader type organization, keeps track of water pollution, "bogus" job agencies, flammable toys, "unsafe" drugs and, in general, on the shortcomings of governmental and private-market consumer-protection efforts (Newman, 1980). While the article never used the word nonprofit, it noted that the organization operates

entirely without public money. It also states that such groups have come into existence "in nearly every developing country, from Barbados to Bangladesh." They even have a formal confederation, the International Organization of Consumers Unions, based in The Hague.

Further attention is needed to other nonprofit forms of organizations that provide collective-type goods. With forms of social institutions, as with nature more generally, sharp distinctions between forms are less to be expected than more continuous gradations. In short, the conventional dichotomy between the government and the private sector is too simple. The nonprofit sector, while not formally part of government, bears important relationships to it. Employment in the nonprofit sector often substitutes for direct government employment. The nonprofit sector exists in significant part because of governmental decisions that encourage this alternative to increased direct governmental provision.

The estimate developed in this paper has employment in the private nonprofit sector of the United States equal to some 8 to 10 million FTEs. This is about 12 percent of total FTE employment in the country, about two-thirds of total government employment, and well over twice the level of employment in the federal government.

Government may, and in the United States does, grant tax advantages to nonprofit organizations and to donors to many of those organizations. The proportion of individuals who utilize the tax advantage of donating, by itemizing on their income tax returns has been declining in the United States, and this implies that the government tax subsidy operating through donors is of diminishing importance. An unintended side-effect is, quite likely, a decrease in revenue to nonprofit organizations and a resulting

increase in the pressure on government to provide substitutes. Government then finds itself raising taxes in order to finance expenditures previously being made by the nonprofit sector. Thus, the traditional public finance problem of raising revenue is entwined with the activity level of the nonprofit sector.

Recognition of the relationship between the government and nonprofit sectors also highlights the choice that exists for consumer-citizens; they are not limited to government as the institutional mechanism through which to obtain collective-type goods. The evidence we examined above, which indicated substantial growth of the nonprofit sector, suggests that reliance on the nonprofit sector is growing. Is confidence in government declining?

NOTES

¹See, for example, articles by Bird (1971) and Peacock and Wiseman (1979) on the "Wagner's Law" literature.

²The division between governmental and other activities, and the conceptual problem of how to make the distinctions, is analytically similar to the well-known problems of defining an industry or an occupation. A focus elasticity of substitution either among outputs or inputs generally provides the conceptual foundation for drawing distinctions. Operationally, of course, determining which substitutes are close enough to be grouped, and which are different enough to be distinguished is difficult. This is what is involved as we consider here the question of which employment should be regarded as governmental and which as nongovernmental, recognizing the kinds of "borderline" cases already referred to.

³Both the nature of what is produced and the techniques of production-- e.g., involving such matters as occupational safety and health, and environmental protection--are encompassed by the references to the "goods and services" that are produced.

4. In 1976, nonprofit organizations in the United States had aggregate revenues of \$142 billion, of which 29 percent went to organizations operating in the area of education, 35 percent to organizations engaged in health activities, and 7 percent to welfare organizations (Internal Revenue Service tax forms, Form 990.).

5. The absolute level of assets in the nonprofit sector is larger according to Goldsmith's estimates in Table 2, above, than it is

according to the IRS data, in Table 4--\$243 billion vs. \$196 billion for 1975. The principal reason may well be the exclusion from IRS data of most churches; another contributor to the discrepancy is the exclusion of all nonprofit organizations with less than \$5,000 of revenue and disbursements.

⁶Tabulated from IRS Form-990 data.

⁷Substantial relative growth of employment in the nonprofit sector has been found by Hiestand (1977, p. 336, Table 4.) He reports, "based on data from the U.S. Department of Commerce and American Hospital Association" (but with no more-precise information on the source or the estimation methodology), that employment in "nonprofit institutions" grew from 3.0 percent of FTE employment in 1950, to 4.3 percent in 1960, 5.5 percent in 1970, and to 5.9 percent in 1973. Hiestand's data on the absolute level of employment in nonprofit institutions indicate, however, a lower level of total employment than we have estimated. For 1973, the latest year for which he presents an estimate, total FTE employment was reported to be 5.0 million, substantially less than the 9.0 million presented for 1976. Some growth doubtless occurred between 1973 and 1976, but the bulk of the discrepancy remains. The precise definition of nonprofit institutions used by Hiestand is not given; he may have used a narrower definition.

⁸The 6 billion hours of volunteer time amounts to 3 million FTE workers at 2000 hours per year (40 hours per week times 50 weeks). If, however, the market value of the time were donated, it is likely that less than all of it would be used to employ labor. As an approximation, our data suggest that about 60 percent would go to labor, for we estimated that the \$30 billion of market revenue generated by the 3 million workers

would, if given to nonprofits, generate some 1.9 million additional FTE employment, assuming the ratio of employment to revenue for government enterprises, 6.3.

⁹I thank Mark Schlesinger for providing these data.

¹⁰Calculated from data in Survey of Institutionalized Persons.

¹¹Two related forces were at work to affect the amount of time volunteered-- a greater marginal tax rate brought about (1) a substitution of volunteer time for market work (the own-price effect), and (2) an increase of volunteer time associated with an increase in donations of money--suggesting that donations of time and money are gross complements, not substitutes-- (the cross-price effect). We found that for the mean person in the sample-- the data permitted us to deal only with one-earner households--an increase of 10 points in the marginal tax rate, from, say, 25 percent to 35 percent was associated with an increase in volunteer hours of 2.1 hours per year because of factor 1, above, and of 11.5 hours because of factor 2.

¹²Bendick (1978, p. 130), estimates that for 1970, 14.7 percent of "all conventional instruction"--measured in dollars of revenue--was in the voluntary nonprofit sector and 1.3 percent in the for-profit sector. Thus, for the two sectors combined, 92 percent of the revenue was in the nonprofit sector.

¹³It was shown in Table 7 that the ratio of employment to revenue differed between the government and private sectors in education; however, the ratio of employment to enrollment is a somewhat independent matter.

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