

# Why Are Business and Professional

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Expansion of the business services industry has important implications for the Southeast. This Atlanta Fed study disputes an argument that the apparent increase in services jobs and output reflects no more than the transfer of certain occupations out of goods-producing industries.

For several decades, the number of firms and individual specialists offering business and professional services has been expanding more rapidly than most other sectors of the economy. The industry's growth is impressive whether measured by the increase in jobs or in output. From tax consultation to building maintenance, this sector has outdistanced not only the industries supplying consumer and public services but other sectors of the economy as well.

The growth of business and professional services has important implications for the Southeast, though only Florida and Louisiana claim an above-average share of what we call these "producer services." The impact on the region is suggested by the fact that every southeastern state except one is adding business and professional service jobs faster than the nation as a whole.

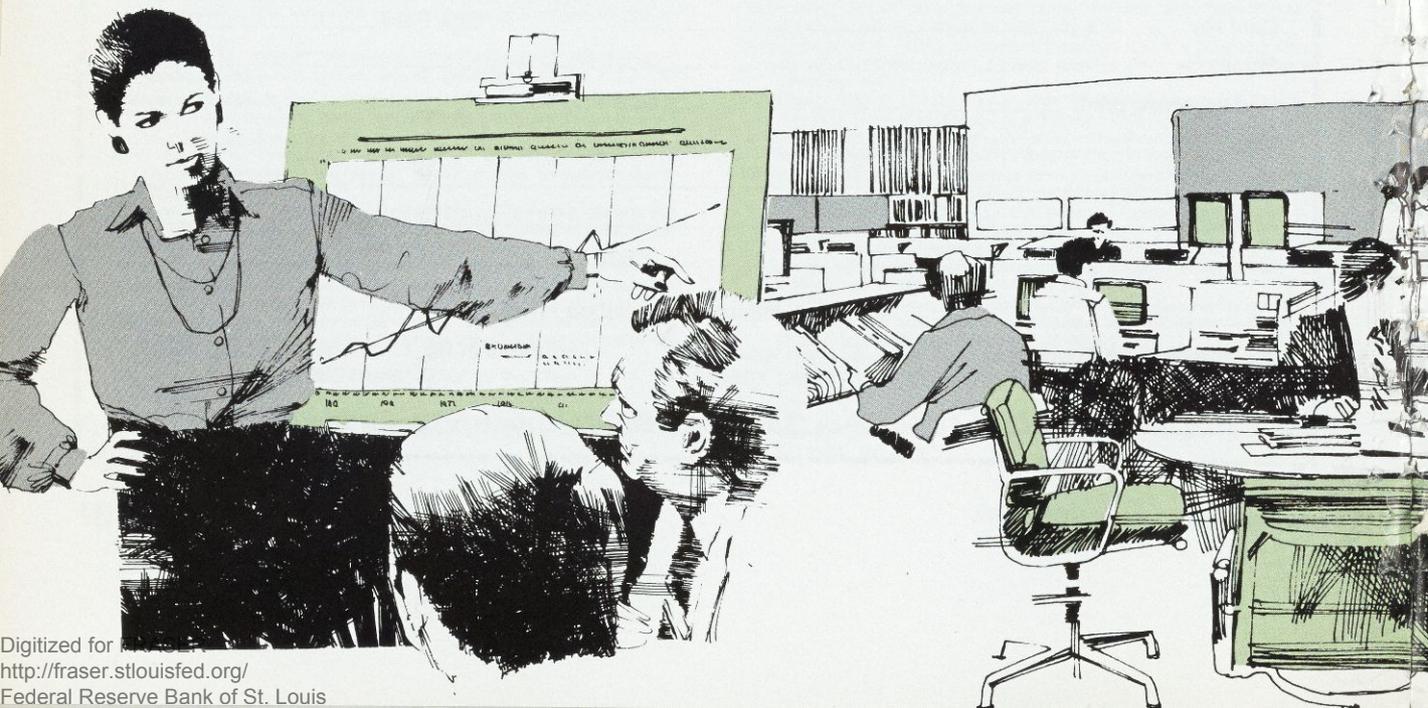
Recently the growth of the service sector has been interpreted as an indication of a structural

shift in the nation's economy. Service employment and production have grown even as the proportion of jobs in such traditional industries as manufacturing and agriculture shrank. Yet, while statistics demonstrating this shift seem clear, researchers differ when they try to explain the reasons for it. In this article we evaluate the various explanations for the growth of producer service employment and suggest a possible explanation.

Some economists argue that the apparent growth of producer services reflects nothing more than a transfer of certain occupations, such as lawyers and accountants, out of the goods-producing sector into separate service businesses that cater to producers. Other analysts link the growth of producer services to demand stimuli such as rising national incomes and increasing government regulations, and to supply factors such as lagging productivity and a swelling labor supply as a larger number of women and the Baby Boom generation have been absorbed into the work force.

We analyze these explanations and offer an additional explanation borrowed from analysts

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# Services Growing So Rapidly?

of the medical services industry. This explanation centers on the imbalance of information between suppliers and consumers in the producer services market and its impact on the relationship between supply and demand. Our research suggests lagging productivity in the sector and information-related peculiarities that inhibit productivity improvements better explain the rapid expansion of producer services jobs and the gap between the sector's employment growth and its increases in output than do other factors and hypotheses.

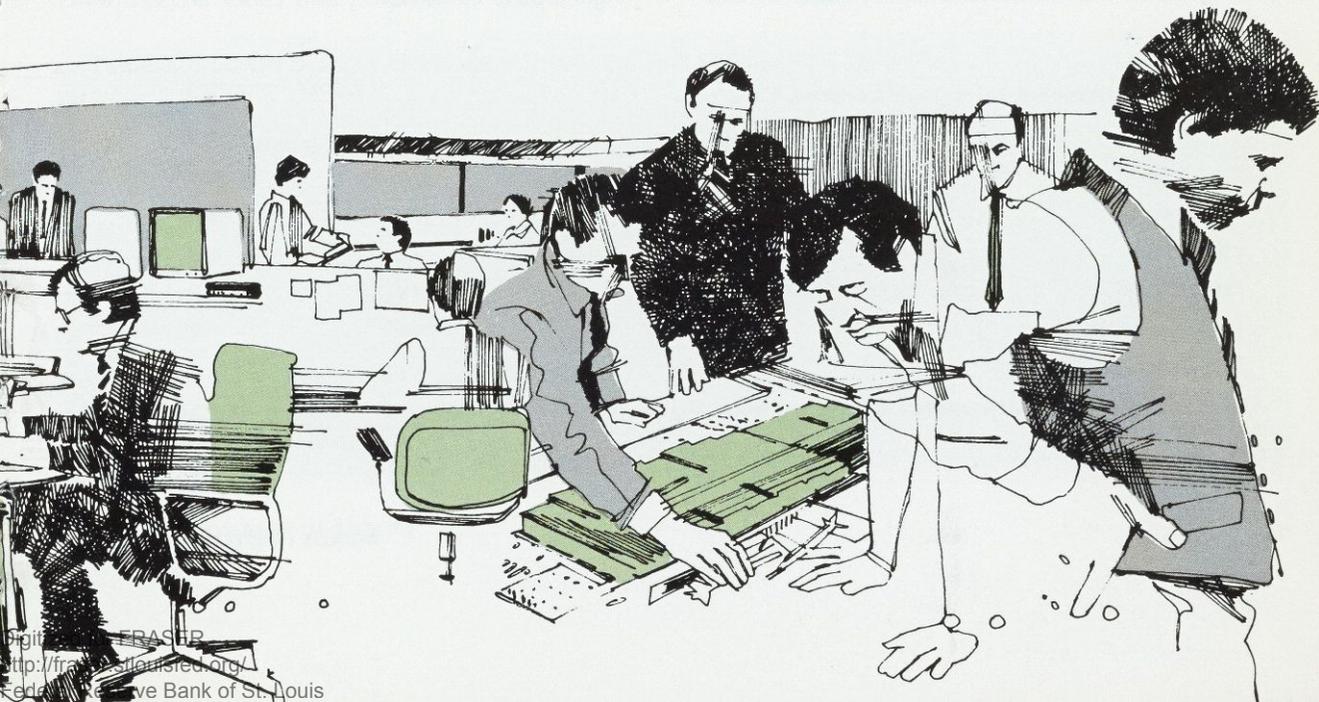
## Why Are Business Services Important?

A structural shift in our economy is apparent from the fact that service-sector employment grew 46 percent from 1953 to 1982, while employment in the goods sector—manufacturing, agriculture, and mining—fell 8 percent. The difference between output of goods production and service production is narrowing more slowly, though. To understand better why the shift to services has been occurring—but at disparate rates for jobs and output—look at various components of the service sector individually. The service sector is a residual category that encompasses diverse activities not easily classified elsewhere but which often lack similarity among themselves. Thus growth in different services could be propelled by different dynamics. For example, the widespread availability of third-

party payments, such as Medicare and employer-provided insurance plans, certainly has stimulated demand for health care and helped fuel the medical industry's growth to more than 10 percent of the gross national product or GNP. The growth of medical services may have been propelled by price effects peculiar to that industry, effects that muted consumers' sensitivity to the true price of products they were purchasing.<sup>1</sup> In contrast, travel services may be growing because of factors other than price, such as increasing personal income levels. So examining the growth in services on a disaggregated basis makes sense. For several reasons, we focus on what we term producer services.

Producer services are growing faster than personal or social services. From 1977 to 1982, receipts for business and professional services grew by more than 100 percent, while the overall services industry grew 89 percent and retail sales and manufactured shipments grew less than 50 percent. Other components of miscellaneous services, such as the health care, entertainment, hotel, and repair categories, grew more slowly than the service industry but still faster than manufacturing. Receipts of some entertainment and personal services declined or grew more slowly than manufacturing.<sup>2</sup>

Employment also has grown rapidly. Producer service jobs constituted 14 percent of all new jobs created nationally from 1972 to 1982, twice



as large as the category's share of total employment in 1982. Of course, 1982 was a recession year, and manufacturing's share of employment was low as a result. Even during the subsequent three years of recovery and expansion, though, business services have created one in eight new jobs, according to the Bureau of Labor Statistics.<sup>3</sup> In view of producer services' outstanding growth record, this sector seems to be an interesting one on which to focus.

Knowing what propels the growth of producer services can help us understand how long these industries are likely to be a source of growth in the Southeast and what, if anything, can be done to promote their expansion, especially in regions needing new jobs.

### What Are Producer Services?

We use the term producer services to cover business, legal, and other professional services. According to the classification system of the U.S. Department of Labor, business services include advertising, public relations, building maintenance, personnel services, computer and data processing, management consulting, protection, equipment leasing, and courier services. About 3.2 million people were employed by these industries nationally in 1982, 371,000 of them in the Southeast (Table 1). Professional services include architecture, engineering, accounting, and research; this is the second largest component, with a work force of 1.1 million nationally and 119,000 in the Southeast. Legal is the smallest component of producer services, with 581,000 employees nationally and 71,000 in the Southeast. Business, legal, and professional services constitute almost 7 percent of all nonfarm employment in the

United States, a share as large or larger than those of financial services, construction, or transportation and communication.

Some economists include other intermediate or infrastructural services such as finance, trade, and transportation and communication in discussing producer services, but we excluded them in the final analysis because their growth patterns proved to be lower than that of business and professional services (Table 2). Rapid expansion of these intermediate services was more significant when the economy was changing from a primarily agrarian to an industrial basis, from household self-sufficiency and local markets to a national market economy in which producers and consumers were bifurcated so that establishing a distributive network became critical. Now the increasing complexity of organizations and markets seems to entail expansion of business and professional services such as marketing, accounting, planning, and administration more than the growth of other intermediate services. Therefore, we focus on the narrower categories of business, legal, and professional services and have adopted the term "producer services" to refer to these three.

However, even the narrow taxonomy in this article is less than perfect. Many so-called business services do not serve businesses exclusively. Over half of lawyers' receipts derive from consumers rather than businesses, according to estimates. On the other hand, hotels, usually considered personal services, increasingly depend on business travelers. Even much government activity represents a form of producer services, especially research conducted by the Agriculture, Commerce, and Labor Departments.

**Table 1.** Employment in Producer Services, 1982

	United States		Southeast	
	thousands	percent*	thousands	percent*
Business	3,241	4.4	371	4.0
Legal	581	0.8	71	0.8
Professional	1,090	1.5	119	1.3
Total Producer	4,912	6.6	561	6.1

\*Total Nonfarm Employment

Source: Computed by Federal Reserve Bank of Atlanta from data in U.S. Department of Commerce, *County Business Patterns*, 1982, Table 1B

## Which Services Are Growing Most Rapidly?

Nationally, as Table 2 shows, legal services grew the fastest between 1972 to 1982.<sup>4</sup> Employment in professional services grew the least rapidly of the three major producer services, although engineering and architectural firms expanded almost as rapidly as legal firms. Personnel services are the fastest growing component of business services. Besides engineering and architecture, other subsectors that outpaced the norm for producer services include testing labs and mailing and reproduction services.

Except for Mississippi, where legal services grew less rapidly than business services, the pattern in the Southeast is similar to that of the nation with respect to the three major areas (see Table 3). However, the subsectors that grew

faster than the producer service average in the Southeast were temporary help, mailing and reproduction, protection, equipment leasing, and photo laboratories (figures not shown). Computer and data processing services probably grew rapidly as well, but comparable data for 1972 are unavailable because the category is new.

This pattern has changed over the postwar period (Table 2). Business services expanded the fastest in the 1960s, both nationally and regionally. In the 1950s professional services ranked first in growth. Despite internally shifting patterns, employment in business and professional services as a whole has outdistanced growth in other intermediate services and private employment generally. Producer services have grown about three times as fast as the private economy in the

**Table 2.** Producer Services Employment Growth, 1953 to 1982  
(percent increase)

	United States			Southeast		
	1953 to 62*	1962 to 72	1972 to 82	1953 to 62*	1962 to 72	1972 to 82
Total Producer Services	79	90	92	115	161	106
Business	65	103	94	116	188	102
Legal	42	70	115	73	98	142
Other Professions	155	69	76	148	132	99
Engineering & Architecture	34	53	113	36	129	96
Accounting	N/A	94	66	N/A	145	84
Other Intermediate Services						
Wholesale Trade	14	26	28	24	48	37
Trucking & Warehousing	21	29	12	40	52	28
Finance, Insurance & Real Estate	32	44	39	62	69	47
Total Private Employment	9	33	28	24	60	39

\*1952 data not available

N/A - Data not available

Source: Computed by Federal Reserve Bank of Atlanta from data in U.S. Department of Commerce, *County Business Patterns*, 1953, Table 2 (U.S.) and Table 1 (various states); 1962, Table 1A (U.S.) and Table 1 (various states); 1972 and 1982, Table 1B (U.S. and various states).

**Table 3.** Producer Services Employment Growth by Sixth District State, 1972-1982  
(percent change)

	Business	Legal	Other Professions	Producer Services	Total Private Employment
Alabama	96	121	77	94	25
Florida	105	156	114	113	58
Georgia	102	130	89	101	30
Louisiana	132	151	119	131	56
Mississippi	116	114	76	104	22
Tennessee	70	125	81	75	21
United States	94	115	76	92	28

Source: Computed by Federal Reserve Bank of Atlanta from data in U.S. Department of Commerce *County Business Patterns*, 1972 and 1982, Table 1B (U.S. and various states).

postwar period, almost doubling each decade nationally and more than doubling in the Southeast. In fact, during the 1950s, when the Southeast suffered slow growth or even declining employment and outmigration, business services grew five times as fast as employment overall.

Of course, making snapshot comparisons of two points in time and inferring trends from them is always risky. In the present case, measuring the growth of producer services from 1972 to 1982 may result in an upward bias relative to manufacturing because the period began in an expansion and ended in a deep recessionary trough, which would have had a greater negative impact on industrial jobs; in contrast, the growth of business and professional services probably is understated from 1962 to 1972 because the beginning point marked the early stages of a recovery and ended in an expansion. Little cyclical bias seems likely in the 1953 to 1962 period.

In absolute terms, business services created by far the most new jobs, followed by professional and legal services (Table 4). Nationally, business services added nearly 1.6 million new jobs, compared to 311,000 in legal services and 469,000 in engineering, architecture, accounting, and other professional services. This growth pattern holds over time, regionally as well as nationally. As mentioned earlier, producer services have created about one in eight new jobs in recent years, almost twice the category's share of total employment.

Producer services' share grew from less than 2 percent of total private employment in 1953 to almost 7 percent in 1982 (Table 5). In the Southeast the share expanded from a slightly lower level to over 6 percent. Just from 1972 to 1982, the share of producer services in both the Southeast and the nation rose about 2 percentage points. Florida and Louisiana enjoy larger shares of producer services than in the United States as a whole; other southeastern states, by contrast, have a lower than national average proportion (Chart 1).

Occupational data tell a similar story. In addition to counting employment in various industries, or Standard Industrial Classification (SIC) categories, the Department of Labor classifies employees by their occupation, according to a Standard Occupational Classification (SOC) system. This system groups several hundred occupations into broader categories: professional and technical, managerial, sales, administrative support (clerical), skilled and unskilled labor, service, and farming. As a whole, occupations associated with producer services have been growing more rapidly than overall employment (Table 6). Those with the fastest growth rates include lawyers and legal assistants, computer systems analysts and programmers, protective services, accountants, and advertising specialists. However, employment in some producer service occupations—engineers, architects, and engineering technicians—is growing more slowly than overall employment

**Table 4.** Absolute Increase in Producer Services Employment, 1972-1982 (in thousands)

	United States	Southeast
Business	1,570*	187
Building Maintenance	207	27
Personnel	364	53
Computer & Data Processing	354	38
Protection	163	25
Legal	311	42
Other Professions	469	60
Engineering & Architecture	303	30
Accounting	141	18
Total Producer Services	2,350	289
Total Private Employment	16,281	2,594

\*Only components with largest increase are itemized; therefore, total of parts shown do not correspond to total of business service category.

Source: Computed by Federal Reserve Bank of Atlanta from data in U.S. Department of Commerce, *County Business Patterns*, 1972 and 1982, Table 1B (U.S. and various states).

**Table 5.** Relative Growth of Producer Services in the U.S. and Southeast, 1953-1982 (percent of total private employment)

	1953	1962	1972	1982
United States	1.9	3.1	4.4	6.6
Southeast	1.5	2.5	4.1	6.1
Alabama	1.1	1.8	3.0	4.6
Florida	1.8	3.7	5.4	7.3
Georgia	1.2	2.1	3.8	5.9
Louisiana	1.9	2.7	4.5	6.7
Mississippi	1.1	1.5	2.2	3.6
Tennessee	1.4	2.1	3.5	5.0

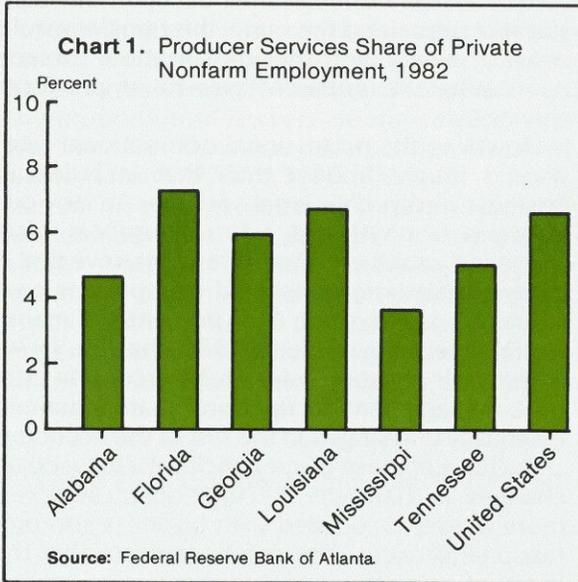
Source: Computed by the Federal Reserve Bank of Atlanta from in U.S. Department of Commerce data, see Table 2 for complete listing.

nationally.<sup>5</sup> The margin of difference between the growth of producer services and total employment, measured in terms of occupation, is much smaller than the gap between producer services' employment growth and total employment, measured in jobs in business and professional service establishments.

### Reasons for Growth

**Transfer of Function.** This disparity has caused some people to question whether the growth in producer services is real or if it simply represents the transfer of certain types of jobs out of goods-producing businesses into separate service businesses. They speculate that the apparent expansion of producer services is really a spurious change resulting from the transfer of certain occupational functions from manufacturing and other goods-producing companies into specialty firms classified as service industries. The Labor Department's SIC counts all employees working for a company whose primary product is, say, steel production, as manufacturing workers, even though some of them may be nurses, lawyers, accountants, engineers or janitors. These workers would be counted as service-sector employees if they worked for a company whose primary output was, respectively, health care, legal advice, accountancy, engineering or cleaning and maintenance.

The growth of producer services could represent a response to higher labor costs, a way of meeting increasing demand more efficiently or a necessary response to more complex and specialized markets. As wage and benefit costs rise, businesses may find contracting with specialized outside firms to increase flexibility and reduce



**Table 6.** Employment Increase in Producer Service Occupations, 1970-1980 (in thousands and percent increase)

	United States		Southeast	
	Actual	Percent	Actual	Percent
Accountants	356	56	55	97
Advertising	44	66	6	106
Building Maintenance	649	31	130	55
Computer Systems Analysts	95	89	8	112
Computer Programmers	153	95	13	120
Economists	31	50	3	66
Engineers and Architects	227	18	37	33
Engineering Technicians	181	25	36	53
Lawyers	226	83	28	114
Legal Assistants	59	339	6	367
Mail (non-public)	63	33	11	77
Protection	257	77	39	99
Public Relations	37	47	4	48
Total Producer Service Occupations	2,375	39	376	64
Total Employment	21,086	28	3,640	42

Source: Computed by Federal Reserve Bank of Atlanta from data in U.S. Department of Commerce, Bureau of the Census, *Detailed Population Characteristics, 1980 Census of Population, Table 217 (various states) and Table 279 (U.S.)*.

labor costs in today's competitive markets more desirable. Instead of having one staff lawyer to handle most of a company's legal needs, contracting establishes a relationship with an independent law firm that might have specialists for international issues, environmental regulations, and taxes.<sup>6</sup>

To determine whether such a transfer of function underlies the growth of business services, we compared the occupational composition of major economic sectors in 1970 and 1980. Using data from the decennial census on the occupational composition of various industries and major economic sectors, we examined the main occupational categories previously mentioned and a number of narrower job categories closely associated with producer services. For example, we determined how many lawyers were employed in manufacturing in 1970 and 1980 and how many were employed in the rest of the economy.

With this data we were able to compute the proportion of total employment that lawyers comprised in two major sectors of the economy and to examine differences in shares over time. By repeating this for all the major occupations associated with producer services, we were able to analyze whether the share of lawyers is falling in manufacturing and rising in the rest of the economy. If this had proved to be the case, it would have indicated that the growth of producer services partly reflects a transfer of functions outside the goods-producing sector into independent service establishments.

To make this calculation we first identified a number of occupations from the SOC closely associated with business and professional services. Next we adjusted the major occupational categories so those from the 1970 census matched the 1980 census. (Reclassification of a number of narrow occupations and of several major categories prevented outright comparison of data from the two years.) Then we determined the major occupational composition of major economic sectors by determining the percentage of managerial, professional, technical, sales, clerical, services, skilled and unskilled labor, and farm workers in 1970 and 1980. After making this calculation we compared changes over the last decade in the occupational composition of manufacturing—the core of the goods sector—with occupational changes in the composition of the rest of the economy, which, due to the small size of the goods categories included serves as a surrogate for the service sector.

The results show that professionals comprised a smaller share of manufacturing employment at the end of the decade, falling from 7.5 to 6.8 percent (Table 7). In contrast, the share of professionals in the rest of the economy rose slightly, from 13.3 to 13.9 percent.<sup>7</sup> This finding provides limited support for the transfer of function hypothesis. Professionals seem to be leaving the manufacturing sector and entering the larger service sector. Although their occupational classification remained the same, this transfer would result in a new industrial classification, thereby overstating the apparent growth of producer services.

However, the professional occupational category is much broader than that included in business and professional services. An obvious example is physicians, whose numbers have increased rapidly. Other categories revealed a different pattern. Managerial occupations constituted a larger share (8.6 percent) of manufacturing employment in 1980 than in 1970, when their proportion was 6.3 percent. In contrast, management occupations' share remained essentially unchanged in the rest of the economy.

Because of these discrepancies we focused on changes in narrower occupational categories more closely associated with business and professional services. The results indicate that the share of business service occupations, ranging from computer and public relations specialists to guards and cleaning personnel, increased in both the manufacturing sector and in the rest of the economy. For example, commercial cleaners expanded their share of manufacturing employment from 1.4 to 1.6 percent; their share in the rest of the economy rose from 2.8 to 3.0 percent. A similar pattern emerged for professional producer services: such occupations showed the same upward trend in both manufacturing and the economy as a whole. The only discrepancy occurred among engineers, whose share of manufacturing jobs remained constant but whose share of jobs in the rest of the economy fell slightly. Thus our research indicates little support for the argument that the growth of producer services is illusory, attributable to the transfer of certain occupational categories out of the goods sector.

However, the underlying factor cited for the transfer of function hypothesis—the search for economies of scale through larger and more specialized firms—still may propel the growth of producer services. Business and professional

service establishments might be expanding to take advantage of the greater specialization and economies of scale possible within an independent firm. If this is true, rising demand for business and professional services could be met by independent establishments with larger staffs of paraprofessionals and support workers who can, perhaps, offer the equivalent quality and higher volume of services at more competitive prices.

Some limited evidence supports this interpretation. We already have shown that paralegals have increased rapidly (Table 6). Not surprisingly, the proportion of lawyers among employees of legal service firms has fallen, from 51 to 49 percent from 1970 to 1980 (Table 8). A similar pattern is evident in other business and professional services. The share of engineers, architects, computer systems analysts, and programmers declined slightly in their respective types of firms. Although these occupational categories constitute less than two-thirds of all producer services occupations, making conclusions

somewhat tenuous, the results are strengthened by the similar pattern for producer services as a whole. Support occupations such as managers, technical personnel, sales, and service workers constitute a growing share of producer services employment. Managerial occupations' share of producer services, for example, rose from 17 to 19 percent. The share of professional occupations declined slightly.

What does this mean? While the evidence is limited, the growth of employment in producer services establishments seems to reflect more than the incorporation of functions and occupations formerly performed within goods-producing firms. Our analysis suggests instead that many producer services firms are developing a more complex occupational composition, relying more on various support functions. This means much of the job growth in business and professional services has occurred not in core occupations such as lawyers, architects, and computer specialists, but in sales, managerial, and service occupations. This analysis clarifies somewhat the

**Table 7. Occupational Structure, 1970-1980\***

	Manufacturing		Rest of Economy	
	1970	1980	1970	1980
Managerial	6.3	8.6	10.9	10.9
Professional	7.5	6.8	13.3	13.9
Technical	2.5	3.2	2.0	3.0
Sales	2.9	3.1	10.2	12.0
Administrative Support (clerical)	12.4	12.5	18.4	18.6
Service	2.3	2.3	16.0	16.0
Skilled Labor	19.7	18.8	11.0	11.2
Semi & Unskilled Labor	47.7	45.1	12.9	10.5
Farming	0.0	0.5	6.0	3.6
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Business Services				
Computer	0.7	0.8	0.4	0.5
Public Relations	0.1	0.1	0.1	0.1
Protection	0.4	0.4	0.4	0.6
Commercial Cleaning	1.4	1.6	2.8	3.0
Professional Occupations				
Lawyers	0.0	0.1	0.4	0.6
Accountants	0.8	0.9	1.0	1.1
Engineers	3.3	3.3	1.0	0.9
Architects	0.0	0.0	0.1	0.1

\*Figures indicate percent of total employment in sector comprised of various occupational categories.

Source: Computed by Federal Reserve Bank of Atlanta from data in U.S. Department of Commerce, Bureau of the Census, *Occupation by Industry, 1980 Census of Population* (Table 4) and *1970 Census of Population* (Table 8).

nature of producer services growth, but does little to help us understand what specific economic factors have propelled the growth of such services in the first place. So let us consider other explanations of this phenomenon.

**Growth of Income.** Another explanation offered for the sector's growth pertains to the income elasticity of demand for services.<sup>8</sup> According to this argument when the nation's real per capita income grows a larger portion of consumption goes to services, just as the composition of an individual household budget shifts toward nonessential items when family income increases. At any given price, the argument continues, the demand for producer services is likely to rise faster than the demand for goods in response to increases in real GNP.

Of course, this apparent relationship between GNP growth and service consumption could be related to other factors such as the increasing number of working women. As a greater share of women join the work force, aggregate and average household income tends to increase. Growth in service consumption, particularly of consumer

services, might reflect changes in the work and leisure preference of households. Particularly for families with working women, the costs of foregoing limited leisure to prepare meals and to perform other household duties seem greater than the costs of paying higher prices for services such as restaurants, laundries, and cleaning. Demand for day-care services also rises. One researcher has estimated that rising female labor force participation accounts for fully one-fourth of the growth in the service sector's share of gross domestic product since 1950.<sup>9</sup> This argument actually supports rather than contradicts the view that services grow in response to per capita income growth.

Others who have studied the growth of various services reject the hypothesis. One serious objection is methodological: most tests of the income elasticity hypothesis have been based on cross-sectional data, comparing the purchases of services in countries with different income and, presumably, different developmental levels at the same point in time. These comparisons, used to infer longitudinal trends in individual countries, ignore many potentially important variables that also change over time, such as family size, relative prices, and consumer preferences.<sup>10</sup> Services may comprise a smaller per capita share of aggregate expenditures in poor economies than in rich ones because the relative prices of services are lower in the former, and the price elasticity of services is greater than unity.<sup>11</sup> Service prices tend to rise relative to commodity prices as national income grows because the development process seems to increase productivity more in goods than in services, widening the difference between service and commodity prices.

Another fallacy of the income elasticity hypothesis is that the shift from goods to services parallels the well-established shift of household budgets from necessities to luxuries. However, luxuries can be satisfied by goods as well as by services. In 1975, musical expenditures on record players and radios were about six times as great as purchases of music through theater, opera, and other purely service vehicles.<sup>12</sup>

This explanation, known as the Clark-Fisher hypothesis, has not been widely applied to producer services since it is based on household income behavior and seems to apply more to consumer services. Several researchers who have applied this hypothesis to producer services (including finance, insurance, and real estate) in

**Table 8.** Core Occupations' Share of Producer Services, 1970 and 1980 (percent of total SIC employment by occupation)

	1970	1980
Advertising	17.8	18.4
Building Services	62.6	63.6
Computer Services	26.4	25.3
Protective Services	59.0	65.0
Legal Services	51.3	49.3
Engineering & Architecture	38.8	37.1
Accounting	52.8	54.2
Producer Services		
managerial	17.4	19.2
professional	22.5	22.0
technical	6.6	7.3
sales	3.5	4.0
administrative support		
clerical	31.5	28.5
service	8.7	11.4
skilled labor	3.7	3.0
semi & unskilled labor	6.1	4.6
farming	0.1	0.1

Source: Computed by Federal Reserve Bank of Atlanta from data in U.S. Department of Commerce, Bureau of the Census, *Occupation by Industry, 1980 Census of Population and 1970 Census of Population*.

the Tennessee Valley found these services were underrepresented and declining relative to other sectors of the local economy even though the region's per capita personal income gap vis-a-vis the nation had narrowed substantially from 1959 to 1979.<sup>13</sup>

**Regulation.** Supposedly, another factor in the rapid growth of producer services is government regulation. Many people feel this exogenous factor shifts the demand curve for services of lawyers, economists, engineers, and other consultants to the right; that is, it increases the demand for services at any price, especially since the regulatory expansion of the 1970s was industry-wide, not specific as in the past. Older regulatory agencies such as the Food and Drug Administration affected particular types of businesses. In contrast, the Occupational Safety and Health Administration, the Consumer Products Safety Commission, the Equal Employment Opportunity Commission, and, to a lesser extent, the Environmental Protection Agency, increased the regulatory burden of a wide spectrum of businesses throughout the economy. Even the more recent trend toward deregulation of certain industries such as finance, transportation, and communication does not necessarily reverse this regulatory burden immediately because it has affected only certain industries. Even in these the services of lawyers, accountants, and others may be needed for several years to assist in the transition to a deregulated environment. Finally, demand induced by regulation tends to be price inelastic since tax and regulatory changes are compulsory and costs associated with compliance are tax-deductible.

Despite the intuitive appeal of the regulatory impact hypothesis, it contains theoretical, measurement, and empirical weaknesses. First, regulation's effect can be ambiguous; clarifying legislation could remove uncertainty concerning regulations, reducing the demand for lawyers and other consultants. Second, even if regulation helps increase demand for certain types of producer services, it does not explain logically why business services such as protection and cleaning also have been growing so rapidly. Third, testing the regulatory hypothesis poses severe measurement problems. How can researchers discern quantitative differences in the regulatory burden over time? Relying on measures such as federal case loads and the budgets of regulatory agencies, as some research has done, ignores the possibility that lawyers may be handling many regulatory

disputes out of court or that agency budgets may reflect historical momentum and not the current burden on those regulated. Fourth, empirical support is lacking for this hypothesis. GNP growth, rather than regulation, was found to be the main factor swelling the number of lawyers during the 1960s to early 1970s and in an earlier era when this profession grew rapidly, the 1920s.<sup>14</sup>

**Demographics—More Working Women.** One explanation for the service sector's growth that might be applied to producer services is based on the increased proportion of women in the work force. As the nation's population surged after World War II, growth in female labor force participation increased the supply of workers at all levels, from professional to unskilled. The result was a shift of the labor supply curve to the right. To the extent that the economy is dual in nature, with legal or cultural barriers to entry into one sector, the other sector would stand to benefit disproportionately from an increased abundance of relatively cheap labor. A case can be made that until recently cultural barriers tended to exclude women from much of the goods sector, especially from industries perceived as dangerous and requiring superior physical strength, such as heavy manufacturing and mining.

Research by the Bureau of Labor Statistics confirms that much of the increase in female labor force participation was absorbed in services rather than the goods sector, although it does not address why this pattern occurred. New employees are much more likely to find jobs in services firms rather than in the goods sector. Seventy-eight percent of all new entrants to the labor force in 1978 entered service businesses; among women the proportion was even higher, 83 percent. Women constitute about three-fourths of new employees and since 1967 have accounted for about 60 percent of the total growth in the labor force. Thus, the implication is clear that workers are not migrating from the goods to the services sector; indeed, a 1977 versus 1978 matched sample of more than 35,000 individuals showed that the tendency was the reverse—those who switched sectors went instead from services to goods.<sup>15</sup>

Employment data for producer services suggest that the growth in the proportion of working women and its effect on the labor supply fail to explain adequately the growth of these industries. Table 9 shows that the percentage of women in producer services grew only slightly faster than the percentage of women in the work force as a

whole from 1970 to 1980 in both the Southeast and the nation. In several subcategories such as temporary personnel, computer and data processing services, and legal services, the share of women actually increased at a slower rate, in relative terms, than that of women in the work force as a whole.

**Lagging Productivity.** One currently popular explanation of service-sector growth pertains to shifts in the supply of services associated with various levels of technology. As technology advances, the supply curve for most goods shifts to the right, implying at any given price that more goods or higher value goods are available. However, some analysts contend that increasing the supply of services requires equivalent increases in inputs, which tend to be labor rather than capital or resources. For example, the only way a busy lawyer can serve additional clients is by stretching his or her already full schedule and sacrificing scarce leisure time. In contrast, a manufacturer probably can meet increasing demand by investing in modern equipment or more efficient procedures that allow the production of more units in the same number of man-hours. Since, according to this argument,

services generally are less amenable to productivity enhancements than goods production, the quantity of services supplied can be increased only through commensurate or larger increases in price. Because increases in remuneration per unit of work do not necessarily represent equivalent increases in output, this explanation implies that increased demand for producer services may prove inflationary in an economy in which various market restraints, such as minimum wage laws and collective bargaining agreements, prevent labor prices from adjusting to their true productivity level. Proponents of this view attribute services' alleged sluggishness in improving productivity to its labor-intensive nature and typically local markets, which shelter them from foreign competition to a greater extent than found in manufacturing, mining or agriculture.

This hypothesis is difficult to test because productivity measures for many services are lacking. The Bureau of Labor Statistics measures only 16 service industries' productivity, and these represent one-third of the relevant employment. This paucity of service productivity statistics reflects intrinsic measurement problems. For example, a lawyer's output in dollar value is

**Table 9.** Female Employment in Producer Services, 1970-1980\*

	Percent Female, U.S.		Percent Female, S.E.	
	1970	1980	1970	1980
Business Services	40 (1.05)	45 (1.05)	37 (0.96)	43 (1.00)
Personnel	67 (1.79)	74 (1.74)	69 (1.80)	77 (1.79)
Computer & Data Processing	36 (0.95)	40 (0.93)	38 (0.99)	39 (0.91)
Professional Services	35 (0.92)	41 (0.96)	36 (0.93)	42 (0.98)
Legal	47 (1.23)	51 (1.20)	49 (1.27)	53 (1.23)
Total Producer Services	38 (1.00)	43 (1.01)	37 (0.95)	43 (0.99)
Total Employment	38 (1.00)	43 (1.00)	39 (1.00)	43 (1.00)

\*Number in parentheses are index numbers representing ratio of percentage of women in particular industries to percentage of women in work force as a whole; only major components of business and professional services in which index declined are shown.

Source: Computed by Federal Reserve Bank of Atlanta from data in U.S. Department of Commerce, Bureau of Census, *Detailed Population Characteristics, 1980 Census of Population* (Table 226, various states and Tables 285, U.S.).

measured by billings, but billings are determined largely by the time he logs per client. Thus output and input are fundamentally interrelated and confound measurement of productivity gains. To address this question, therefore, many economists compare growth in the service sector's share of employment with its share of GNP in constant dollars. The fact that the latter has grown more slowly than the former is cited as evidence of the sector's lagging productivity. In addition, the fact that the sector's share of current dollar GNP has risen faster than the constant dollar share suggests that this structural shift may have inflationary consequences and may exert a widespread drag on productivity as services employment becomes even more prominent.<sup>16</sup>

More direct but more complex attempts to compare productivity differences found no significant variations between manufacturing and service productivity growth.<sup>17</sup> Some economists point out that productivity in the goods sector slipped in 1973 to 1979, whereas some service industries such as communication enjoyed high productivity growth; therefore, they maintain, the nation's recent productivity lag cannot be blamed primarily on growth of the service sector.<sup>18</sup>

Is producer services' growth record measured in terms of output, similar to that of other services? One way of answering this question is to compare the relative growth of business, legal, and professional service employment with growth in these producer services' share of constant dollar national income. To improve this analysis we chose a measure of producer service employment that adjusts employment rolls to a full-time equivalent basis (since many service industries hire a large share of part-time workers) that incorporates self-employed workers in similar businesses. As Charts 2a-d indicate, the employment share in producer services has been slightly higher than their output share. Professional services in particular seem to enjoy a high level of labor productivity—that is, their share of output is greater than their share of employment. Business services exhibit the opposite pattern, probably because of the large portion of labor-intensive, low-value-added activities such as building maintenance in the business services category.

The critical question is whether growth rates are similar for employment and output or whether jobs have been exceeding output growth. Each of the three major components of producer

services shows a distinct pattern. The gap between employment and output has been widening for business services (figure a) since the early 1960s, with employment growth bypassing output growth. This pattern suggests that productivity has been a problem in this component of producer services. Legal services (figure b), in contrast, have maintained a much higher output level, apparently increasing relative to employment over the last two decades. In professional services (figure c), the gap has narrowed in recent years, but at no time has the share of jobs outstripped that of output. Because of the large size of business services, employment growth for the producer services category as a whole began to exceed output growth in the early 1970s (figure d).

Lagging productivity, then, seems to account for some of producer services' growth especially in business services. Expanding supply to meet demand has entailed employment increases that at times have outpaced the value of output added. The question remains: why are producer services slower to achieve productivity gains?

**Informational Imbalances.** A final explanation for the growth of producer services focuses on the interaction and elasticity of both supply and demand related to a unique characteristic of the market for many producer services—the suppliers' virtual monopoly on information. This "knowledge imbalance" is intrinsic to many producer services. As in the health care market, where patients go to doctors because they lack the knowledge to treat their ailments, many producer services' customers seek solutions to problems they cannot solve on their own.<sup>19</sup> These may be legal, engineering, marketing, accounting or other problems. Seeking this type of consultation service is distinct from buying a specified product. Customers are poorly qualified to evaluate what they are purchasing because essentially they are buying information.

In highly competitive markets exemplified today by many financial markets, information about prices and other relevant factors is readily available to all participants. However, in markets such as health care, information on prices, products or services is hardly available to all. Instead, it is concentrated in the hands and minds of suppliers. Customers seeking tax, legal, and other professional services do so because their knowledge of these specialized areas is inadequate. Many services offered by firms in this category have a strong informational content. We need

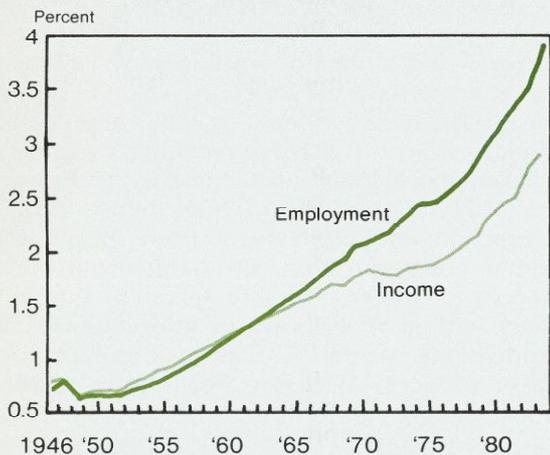
to think only of computer and data processing services, business consulting, public relations or advertising to see the basic similarity.

In markets where suppliers enjoy an imbalance of information certain distortions are likely from the usual patterns of supply and demand that mark more competitive markets. First, the imbalance in favor of suppliers arises from the former's specialized knowledge, usually acquired during a long training period. Subsequent certification is often necessary for such professionals as architects, lawyers, accountants, and increasingly for financial analysts. This training and

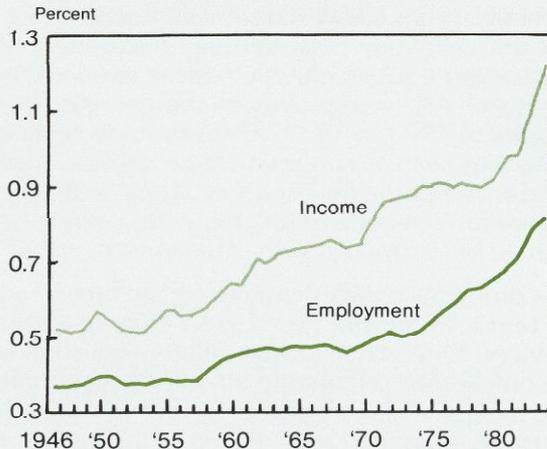
licensing in effect erects entry barriers to such businesses, tending to make the supply curve inelastic—that is, unresponsive to changes in the price of the service when it is bid up by higher demand.

When demand increases as the result of exogenous forces such as regulation, the response likely will be felt more in terms of rising prices than of increasing quantity. The fact that most professional schools are nonprofit may mute their response to changing demand for various occupations. Professional codes of ethics such as the legal profession's recently repealed traditional

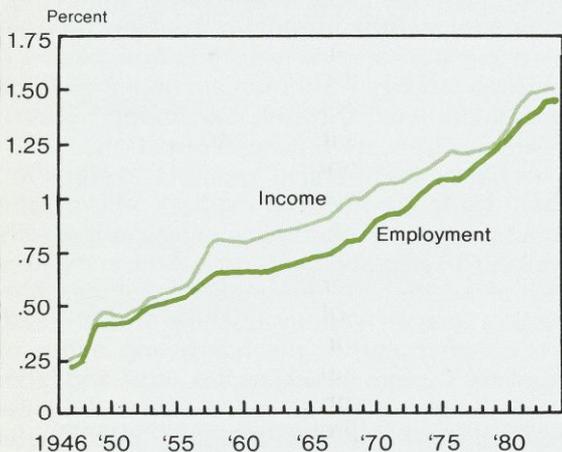
**Chart 2a. Business Services As a Share of Total Employment and National Income**



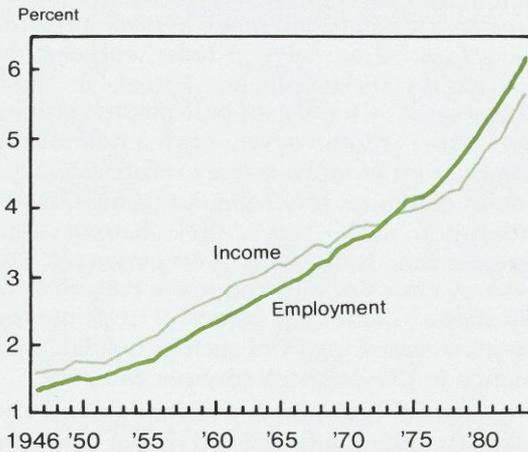
**b. Legal Services as a Share of Total Employment and National Income**



**c. Professional Services as a Share of Total Employment and National Income**



**d. Total Producer Services as a Share of Total Employment and National Income**



Source: Computed by the Federal Reserve Bank of Atlanta from data in *Supplement to Survey of Current Business*, Table 6.3B (September 1981) and Table 6.11B (July 1981, July 1982, July 1983)

prohibition of advertising make obtaining price information more difficult. Finally, geographic constraints on markets dull competition further, exacerbating the effects of entry barriers. The existence of 50 state legal codes exemplifies the geographic restraints on many legal services. The human interaction required tends to shield services from foreign competition, while manufacturing and other goods production have proved vulnerable to the increased competitiveness of a global marketplace.

Of course, recently we have seen the proliferation of substitutes such as paralegals, franchised tax consulting services, and microcomputers and specialized software to compute payroll, inventory, and functions that might have been contracted to a data processing or accounting firm. Nonetheless, many of the services sought from independent professional and business service firms still can be obtained only from specialists within such firms or from staff members supervised by such professionals.

Thus, entry barriers arising from long training periods and special licensing restrict competition in such markets. In addition, customers' lack of knowledge regarding both prices and the products they need forces them to abdicate much of the purchase decision to suppliers. The time and money involved in seeking advice from several lawyers, public relations specialists, accountants or business consultants can be considerable although some preliminary comparison of firm reputation may be feasible. Thus the producer service customer often is as dependent on the recommendation of his or her financial analyst as the patient is on a physician; the former may be more vulnerable because suppliers of producer services generally are less constrained by ethical codes than are doctors.

This relationship between supplier and customer means the demand curve for producer services also is less sensitive to price changes than demand for other products because the conditions are set by suppliers, not consumers. In an imperfectly competitive market marked by entry barriers, suppliers can increase their incomes by increasing prices. The supply curve may be backward bending, since often a professional's income can be increased only by devoting more time to work, which can infringe unacceptably on leisure. The opportunity cost of leisure becomes higher because already high income levels afford many recreational alter-

natives, while the time available for such satisfaction is limited.

This informational imbalance explanation probably has little applicability to many business firms, such as those providing temporary personnel, protection, and building maintenance services. However, it does help to explain the disparate growth of employment and real output in other producer services, clarifying why they have not responded to lagging productivity. Price increases can be passed on to the purchaser because the supplier is making decisions on behalf of the consumer. Hence, according to this hypothesis, there is less incentive for suppliers of many producer services to improve productivity in their operations; they can respond to higher demand simply by adding personnel with less regard to concomitant productivity advances than manufacturers must pay. Economists' challenge at present is to devise ways to test this hypothesis, never subjected to extensive empirical scrutiny even in fields such as health care where it was applied many years ago.

Which of these factors—transfer of function, income growth, regulation, demographics, lagging productivity or imbalance of information—has the greatest validity? All are probably partially correct, with each accounting for some of the growth of producer services. The challenge is to determine the single most important explanation. There seems to be little evidence that the growth of producer services industries merely reflects a shift of such functions outside the goods sector into independent firms: core occupations involved in producer services show the same trend in manufacturing and the rest of the economy. Neither does overall growth in producer services seem to represent a response to an expanding supply of labor, particularly female workers available at lower wages or on a part-time basis. Income growth on its own has not clearly propelled the disproportionate expansion of producer services because empirical evidence is limited and the underlying theory may have serious problems.

Productivity differentials do seem to constitute a significant aspect of producer services' faster growth rate. As our study has suggested, the reason producer services have added less to output than to employment derives from peculiarities of the product being exchanged by many producer services—information. Because of consumers' comparative ignorance regarding

the purchase of many such services, certain distortions in supply and demand relationships make it easier for sellers in this market than in more competitive markets to pass along price increases to consumers and avoid investing in productivity enhancements.

## Conclusion

In exploring the growth of the key business and professional components of the service sector, we found these producer services are growing rapidly. What's more, the number of business and professional service jobs in every south-eastern state except Tennessee is growing more rapidly than in the nation. Although legal services have been growing at the fastest rate, business services are creating by far the largest number of new jobs. The growth of producer services employment seems to depend largely on the industry's relatively poor record of improving productivity. This lag may be due in turn to infor-

mational imbalances prevailing in this market and the effects these have on supply and demand relationships. Less evidence exists that the growth of business and professional services employment is tied to income growth or to the increasing number of women in the work force.

The implications of these findings for regional policymakers seeking to promote employment growth are discouraging. Rising per capita income in a state or locality is unlikely to stimulate a disproportionate expansion of the producer services sector, according to the preceding analysis, since income growth seems more likely to increase demand for consumer services. Beyond this, however, on the basis of the foregoing analysis suggesting policies for those seeking to promote job growth and regional economic development is difficult. To do so requires a more focused study of the geographic distribution of producer services.

*Betty Bradfield, research assistant, provided valuable assistance on this project.*

## NOTES

<sup>1</sup>See Bobbie H. McCrackin, "Dynamics of Growth and Change in the Health-Care Industry," *Economic Review*, Federal Reserve Bank of Atlanta, vol. 69 (October 1984) pp. 4-17.

<sup>2</sup>Census of Service Industries, Preliminary Report Summary Series, May 1984, pp. 2-5; receipts are in current dollars.

<sup>3</sup>"Employment eased to 7.3 percent in February," *Wall Street Journal*, March 11, 1985.

<sup>4</sup>Employment data from *County Business Patterns* are used in the following analysis. This source provides highly articulated data for subsectors of various industries, including business and professional services, at the state and even county level on a regular (annual in recent years) basis.

<sup>5</sup>In the Southeast, the number of engineers grew at a faster rate than total employment.

<sup>6</sup>This hypothesis has not been tested empirically except on Italian data for 1965-1975 with inconclusive results; see F. Momigliano and D. Smiscalco, "The Growth of Service Employment: A Reappraisal," *Banco Nazionale del Lavoro* (September 1982), pp. 269-306.

<sup>7</sup>We have compared relative growth rather than growth trends because occupations could be increasing faster in one sector of the economy if that sector is growing faster; computing relative shares in the two time periods adjusts for this.

<sup>8</sup>This approach often is termed the Clark-Fisher hypothesis in recognition of two economists who in the 1930s applied the concept of income elasticity to macroeconomic shifts between major sectors of the economy. It originated with Christian Engel, a nineteenth century statistician who observed the patterns in income elasticity of food expenditures in household budgets.

<sup>9</sup>Victor R. Fuchs, "Economic Growth and the Rise of Service Employment," Working Paper No. 486, National Bureau of Economic Research, June 1980.

<sup>10</sup>George J. Stigler, "Employment in the Service Industries," NBER Working Paper No. 59, Princeton: Princeton University Press, 1956, p. 46.

<sup>11</sup>Irving B. Kravis, Alan W. Heston, and Robert Summers, "The Share of Services in Economic Growth," in *Global Econometrics* Cambridge, Mass.: MIT Press, 1983, pp. 192, 204.

<sup>12</sup>Kravis, pp. 196, 198.

<sup>13</sup>Donald J. Cocheba, Robert Gilmer, and Richard S. Mack, "Growth of the Service Sector in the Tennessee Valley," paper presented at the Southern Economic Association Annual Meeting, Atlanta, Georgia, November 1984.

<sup>14</sup>Peter Pashigian, "The Market for Lawyers: The Determinants of the Demand for the Supply of Lawyers," *Journal of Law and Economics* vol. 20 (April 1977) pp. 53-85.

<sup>15</sup>Michael Urquhart, "The Employment Shift to Services: Where Did it Come From?" *Monthly Labor Review*, vol. 107 (April 1984), pp. 20, 21.

<sup>16</sup>See, for example, U. K. Ranga Chand's, "Why the Dramatic Increase in Service Sector Employment?" *Canadian Business Review*, vol. 10, (Autumn 1983), pp. 25-29, and "Growing Service Sector Threatens to Lower Overall Productivity Growth" *Canadian Business Review*, vol. 10 (Summer 1983) pp. 44-47.

<sup>17</sup>Phoebus J. Dhrymes, "A Comparison of Productivity Behavior in Manufacturing and Service Industries," *Review of Economics and Statistics*, vol. 45 (February 1963) pp. 64-69. He focused on the period from 1945-1958 due to its stability, full employment, and full utilization of capital stock.

<sup>18</sup>Herbert Runyon, "The Services Industries: Employment, Productivity, and Inflation," *Business Economics*, vol. 20 (January 1985), pp. 59-60.

<sup>19</sup>These concepts were first applied to the health care industry by Kenneth Arrow, "Uncertainty and the Welfare Economics of Medical Care," *American Economic Review*, vol. 53 (December 1963), pp. 941-73.