

December 1994

TAX  
ADMINISTRATION

Estimates of the Tax  
Gap for Service  
Providers





**General Government Division**

B-259655

December 28, 1994

The Honorable Daniel Patrick Moynihan  
Chairman, Joint Committee on TaxationThe Honorable Sam M. Gibbons  
Acting Vice Chairman, Joint Committee  
on Taxation  
Congress of the United States

This report provides information about the tax gap for sole proprietors (that is, self-employed individuals). Specifically, it presents estimates of the tax year 1992 gross income tax gap for nonfarm sole proprietors who provided services. It also includes estimates of the tax gap attributable to service providers who may have been employees, rather than self employed. This report is part of our response to your request that we analyze the noncompliance of sole proprietors. It represents the combined efforts of our staff and analysts of the Internal Revenue Service (IRS).

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**Background**

The gross income tax gap is the difference between the amount of income taxes owed and the amount voluntarily paid. Tax gap estimates can be used to measure IRS progress in addressing particular types of noncompliance and to help IRS allocate its compliance resources.

IRS last published a tax gap estimate in 1988.<sup>1</sup> IRS projected that the tax gap for all nonfarm sole proprietors who filed a return, regardless of whether they provided goods, services, or both, would be over \$30 billion by 1992.<sup>2</sup> IRS split this estimate between two sole proprietor groups. About \$20 billion was attributed to individuals who formally organized their businesses as sole proprietors. The remaining \$10 billion was associated with individuals organized informally—informal suppliers—who provided goods or services primarily through cash transactions.<sup>3</sup> IRS has not yet published its new tax gap estimates based on Taxpayer Compliance Measurement Program (TCMP) results for tax years 1985 and 1988.

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<sup>1</sup>The 1988 estimate relied on TCMP data for tax years 1973, 1976, 1979, and 1982. Under TCMP, IRS auditors do detailed audits of tax returns for a random sample of taxpayers. Since 1988, IRS has also completed analysis of its TCMP surveys for tax years 1985 and 1988.

<sup>2</sup>This \$30 billion excludes an estimated \$3.5 billion for sole proprietors who did not file tax returns. None of the tax gap estimates in this report includes nonfilers.

<sup>3</sup>A more complete discussion of the informal supplier tax gap can be found in appendix I.

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IRS did not segregate the portion of the sole proprietor tax gap related to independent contractors. If done, this independent contractor portion might also be disaggregated into an estimate for misclassified workers. When hiring a worker to provide services, a business may use an employee or an independent contractor. Employers must withhold taxes on employees but not on independent contractors. IRS has adopted 20 common-law rules for classifying workers as either employees or independent contractors (see appendix II for a list of these rules). The degree of control, or right to control, that a business has over a worker generally governs the classification. Misclassified workers are individuals who reported they were self-employed but were actually employees of the businesses for which they provided services. The misclassification of workers as independent contractors has plagued IRS and employers for many years because of difficulties in applying the 20 common-law rules.<sup>4</sup>

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## Objectives, Scope, and Methodology

Our original objectives were to estimate the income tax gap for independent contractors and the portion of that gap associated with potentially misclassified employees. We could do neither of these estimates because no generally accepted definition of independent contractor, such as from using the 20 common-law rules, could be associated with data IRS used to calculate the tax gap.

Because of uncertainty about who was an independent contractor, we used service providers as surrogates since many are considered by IRS and the business community to be independent contractors. Also, IRS data can be used in conjunction with some assumptions to make tax gap estimates for sole proprietors who primarily provide services and for that portion of the tax gap attributable to potentially misclassified workers. However, because the IRS data did not clearly define service providers, we developed three definitions for service providers using TCMP data and information reported on tax returns.

The three definitions used the Cost of Goods Sold (COGS) information and the IRS Primary Business Activity (PBA) codes that sole proprietors claim on Schedule C, Profit or Loss From Business, of the Form 1040, U.S. Individual Income Tax Return. We used the amount of COGS claimed because sole proprietors who provide services generally claim less COGS than those who manufacture or sell goods or mine minerals. The PBA codes

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<sup>4</sup>Our report *Tax Administration: Approaches for Improving Independent Contractor Compliance* (GAO/GGD-92-108, July 3, 1992) summarizes the independent contractor classification issues.

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categorize sole proprietors by their type of business activity. These codes can be used to identify service providers.<sup>5</sup>

Using the amount of reported COGS and PBA codes as criteria, we analyzed the following three service provider groups:<sup>6</sup>

- all sole proprietors who reported no COGS on their returns;
- all sole proprietors with no reported COGS plus those reporting COGS at or below their industry average, as a percentage of gross receipts—except for sole proprietors engaged in manufacturing, mining, or sales activities; and
- all sole proprietors in the first and second groups plus any remaining sole proprietors with service-related PBA codes.

We analyzed the IRS 1988 TCMP data to obtain tax compliance data for the sole proprietors who fell into each of the three groups. At our request, IRS used these data and its tax gap model to estimate the 1988 and 1992 tax gap for each group.

To estimate the portion of tax gap related to misclassified workers, we matched data from the TCMP file and the IRS tax year 1988 Information Returns Masterfile (IRMF) to identify service providers who were potentially misclassified workers. For this group, IRS then used its tax gap model to estimate the portion of tax gap associated with potentially misclassified workers. At our request, IRS made tax gap estimates for two categories of potentially misclassified employees: (1) service providers who received all of their income, regardless of the amount, from one payer and (2) service providers who received \$20,000 or more from one payer. We selected the \$20,000 limit on the basis of discussions with the IRS employment tax staff.

We received oral comments on a draft of this report from representatives of the IRS Director of Research on December 12, 1994. These officials asked that we emphasize the weakness of the informal supplier estimates and indicate that allocating this estimate among business activities increases the uncertainty. We agreed and strengthened our caution about interpreting the allocated estimates in table 2 and appendix VI. Even though these allocations have limitations, they provide some indication of the types of informal suppliers who not only provide services but also add

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<sup>5</sup>The PBA codes are defined under nine broad categories: (1) construction; (2) manufacturing; (3) mining; (4) agricultural services; (5) wholesale trade; (6) retail trade; (7) real estate, insurance, finance, and related services; (8) transportation, communication, public utilities, and related services; and (9) personal, business, and professional services.

<sup>6</sup>Appendix I provides further details on our rationale and criteria for the three definitions.

to the tax gap. These IRS officials agreed that our method of allocation was reasonable. We also updated the tax gap estimates to correspond to IRS' most recent estimates.

We did our work between October 1993 and November 1994 in accordance with generally accepted government auditing standards.

## Results in Brief

Using three definitions of service providers and data available from the IRS 1988 TCMP, we estimated that between 9.2 million and 11.5 million of the 13 million nonfarm sole proprietors might be considered service providers. IRS estimated that the 1992 tax gap among these likely service providers ranged from \$21 billion to \$30.3 billion—that is, from 56 to 81 percent of the \$37.2 billion tax gap estimated by IRS for all nonfarm sole proprietors who filed a return.<sup>7</sup> Specifically, the tax gap estimates for the three definitions of service providers were

- \$21 billion for 9.2 million nonfarm sole proprietors who claimed no COGS on their returns.
- \$25.1 billion for 10.3 million nonfarm sole proprietors whose reported COGS, as a percentage of gross receipts, were at or below the average reported by all sole proprietors in the same industry. This group included all the sole proprietors covered in the first group.
- \$30.3 billion for 11.5 million nonfarm sole proprietors who, on the basis of IRS' PBA codes, were primarily service providers. This group includes all the sole proprietors covered in the second group.

Of this \$30.3 billion tax gap, IRS also estimated that between \$2 billion and \$3.5 billion was associated with potentially misclassified workers. These estimates included only service providers who received all their self-employment income from one business. The \$3.5 billion estimate included all such service providers. The \$2 billion estimate included only those receiving \$20,000 or more from one payer.

## Income Tax Gap Attributable to Service Providers

Using the IRS TCMP data, we estimated that for tax year 1988 about 13 million individuals filed Schedules C as nonfarm sole proprietors. We also estimated that between 68 percent (9.2 million) and 85 percent (11.5 million) of the nonfarm sole proprietors were potentially service

<sup>7</sup>The \$37.2 billion sole proprietor tax gap estimate is from unpublished data that we obtained from IRS. IRS relied on tax years 1985 and 1988 TCMP results to make this estimate. IRS has not calculated a sampling error for its tax gap estimates.

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providers, with the estimates varying across the three groups that we analyzed.

Using its most recent TCMP data, IRS estimated the 1992 tax gap for all sole proprietors at \$37.2 billion. Of this amount, between \$21 billion and \$30.3 billion was associated with sole proprietors who provided services. Table 1 shows the estimated 1992 tax gap for three groupings of service providers.<sup>8</sup> The table stratifies the service providers into nine major sectors—seven service provider sectors based on PBA codes used by IRS to categorize sole proprietors, one sector for all nonservice sector businesses that reported no COGS, and one sector for informal suppliers.<sup>9</sup>

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<sup>8</sup>Appendix III provides a similar table for the 1988 tax gap.

<sup>9</sup>Appendix IV lists PBA codes for each business sector.

**Table 1: Estimated Tax Gap for Potential Service Provider Groups for 1992**

Description of sector	1992 tax gap estimate		
	No COGS	Average or lower COGS	Based on PBA codes
Construction services	\$ 1,209	\$ 2,229	\$ 3,804
Real estate, insurance, and financial services	937	1,027	1,379
Transportation and communication services	800	979	1,140
Business services <sup>a</sup>	2,122	2,375	2,893
Personal services <sup>b</sup>	61	954	1,349
Medical services <sup>c</sup>	610	634	984
All other services <sup>d</sup>	1,045	2,106	3,144
All other businesses with no COGS <sup>e</sup>	1,057	1,057	1,057
Informal suppliers	13,191	13,784	14,526
<b>Total<sup>f</sup></b>	<b>\$21,031</b>	<b>\$25,146</b>	<b>\$30,276</b>
Percent of tax gap for all sole proprietors	56.5%	67.5%	81.3%

Note: Appendix V shows population estimates by sector and group.

<sup>a</sup>This sector includes services such as legal and accounting.

<sup>b</sup>This sector includes services such as beauty shops, child day care, and counseling.

<sup>c</sup>This sector includes services such as doctors and dentists.

<sup>d</sup>This sector contains services not covered in the above sectors such as agricultural, automotive, and hotels.

<sup>e</sup>This sector contains businesses in the manufacturing, mining, and sales sectors, with no COGS.

<sup>f</sup>Totals may not add due to rounding.

Source: IRS tax gap model and TCMP database.

As table 1 shows, the lowest estimate of the possible service provider tax gap was \$21 billion, or about 57 percent of the total \$37.2 billion sole proprietor tax gap estimate. This estimate covered only those sole proprietors with no COGS, regardless of their PBA code. We estimated that about 9.2 million sole proprietors fell into this group. In its instructions to small businesses, IRS indicated that COGS are used to record the expenses of any goods that are purchased for resale. Thus, we assumed that any sole proprietor that reported no COGS received all gross receipts from providing services. This would be the purest form of service provider. However, this



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definition excludes service providers who have COGS because they sold some goods in the course of providing services (for example, a mechanic who also sells automobile parts).

IRS' intermediate estimate of the possible service provider tax gap totaled \$25.1 billion among an estimated 10.3 million sole proprietors. In addition to those sole proprietors with no COGS, this estimate also included those who sold some goods in the course of providing services. We defined these sole proprietors as service providers if their reported COGS as a percent of gross receipts was at or below the average for all sole proprietors in the same sector. We used the average COGS amount as a measure to limit the group to only those sole proprietors whose sales of goods were incidental to providing services.

The highest estimate of the possible service provider tax gap was \$30.3 billion among an estimated 11.5 million sole proprietors. To identify this group of service providers, we used the service-related PBA codes that sole proprietors reported on their Schedule C plus those included in the prior two groups. This group does not include sole proprietors with PBA codes in the manufacturing, mining, and wholesale and retail sales sectors that reported any amount of COGS.

Table 1 also shows that informal suppliers were responsible for the largest portion of the tax gap for all three groupings. Based on the 1988 TCMP data, an estimated 2.6 million service providers were informal suppliers. IRS officials said they have not determined why informal suppliers accounted for such a large portion of the tax gap. They did say that the informal supplier tax gap estimate has a high degree of uncertainty and that IRS has not allocated this estimate among the industrial sectors to avoid adding even more uncertainty. Accordingly, in table 1 we did not allocate the informal supplier tax gap to each sector. However, table 2 allocates the informal supplier estimate across these sectors, using the informal supplier compliance rate for each sector as the basis for the allocations. The resulting allocation of the tax gap estimates should be viewed as rough approximations that can provide insight as to the potential breakdown by industry sector. Appendix VI provides more details on these allocations.

**Table 2: Estimated Allocation of Informal Supplier Tax Gap Among Business Sectors, 1992**

Description of sector	1992 tax gap estimate for informal suppliers		
	No COGS	Average and lower COGS	Based on PBA codes
Construction services	\$ 5,900	\$ 6,200	\$ 6,500
Real estate, insurance, and financial services	0	0	0
Transportation and communication services	1,100	1,100	1,200
Business services <sup>a</sup>	1,100	1,200	1,200
Personal services <sup>b</sup>	2,000	2,100	2,200
Medical services <sup>c</sup>	300	300	300
All other services <sup>d</sup>	1,200	1,300	1,300
All other businesses with no COGS <sup>e</sup>	1,600	1,600	1,700
<b>Total<sup>f</sup></b>	<b>\$13,200</b>	<b>\$13,800</b>	<b>\$14,500</b>

Note: Numbers are rounded to the nearest \$100 million.

<sup>a</sup>This sector includes services such as legal and accounting.

<sup>b</sup>This sector includes services such as beauty shops, child day care, and counseling.

<sup>c</sup>This sector includes services such as doctors and dentists.

<sup>d</sup>This sector contains services not covered in the above sectors such as agricultural, automotive, and hotels.

<sup>e</sup>This sector contains businesses in the manufacturing, mining, and sales sectors, with no COGS.

<sup>f</sup>Totals may not add due to rounding.

Source: TCMP database, IRS tax gap model, and GAO analysis.

## Service Provider Tax Gap Related to Misclassified Workers

Using the broadest definition of service provider, we estimated that between 0.2 million and 1.6 million of the 11.5 million service providers may be misclassified employees.<sup>10</sup> The estimate of the 1992 income tax gap for these service providers ranged from \$2 billion to \$3.5 billion. The \$2 billion estimate covered only those sole proprietors who reported \$20,000 or more in income from one business. The \$3.5 billion estimate covered service providers who received all of their income from just one business, regardless of the amount. Table 3 shows the estimated tax gap

<sup>10</sup>We used the service provider tax gap estimate defined by the PBA codes because it contained the most TCMP sample cases and, therefore, was likely to provide the most precise estimates. Appendix I shows the number of TCMP cases for each group.

for these two groups in total and as a percentage of the total service provider tax gap.

**Table 3: Estimated Tax Gap Amounts for Potentially Misclassified Service Providers in 1992**

Dollars in millions

Type of potentially misclassified service providers	Tax gap estimate		Percent of service provider tax gap from potentially misclassified workers
	Potentially misclassified service providers	All service providers	
Providers who reported \$20,000 or more in gross receipts from just one payer	\$2,037	\$30,276	6.7
Providers who reported any amount of gross receipts from just one payer	\$3,503	\$30,276	11.6

Source: The IRS tax gap model using TCMP and IRMF data.

If all of these were actually misclassified and IRS were to correct the classification to employee, after the fact, IRS would not necessarily collect either the \$2.0 billion or the \$3.5 billion.<sup>11</sup> However, had these workers been classified correctly as employees, a significant amount of the taxes owed would likely have been withheld by the employer. IRS studies have indicated that taxpayers subject to withholding were substantially more compliant. For example, the 1988 TCMP showed that employees reported 99.8 percent of their wages, while sole proprietors reported only 75.2 percent of their business income.

As agreed with the Committee, we will send copies of this report to the Secretary of the Treasury, the Commissioner of Internal Revenue, and other interested parties. We also will make copies available to others upon request. This report was prepared under the supervision of Natwar M. Gandhi, Associate Director.

<sup>11</sup>IRS data also show an estimated \$2 billion employment tax gap for 1992 for misclassified workers. This would likely be reduced if workers were properly classified.

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Major contributors to this report are listed in appendix VII. If you have any questions, please contact me at (202) 512-5407.

*Jennie S. Stathis*

Jennie S. Stathis  
Director, Tax Policy  
and Administration Issues

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**Abbreviations**

COGS	Cost of Goods Sold
IRMF	Information Returns Masterfile
IRS	Internal Revenue Service
PBA	Primary Business Activity
TCMP	Taxpayer Compliance Measurement Program



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# Methodology for Identifying Industries as Service Providers

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Neither income tax return nor TCMP data are specific enough for developing a tax gap estimate on independent contractors. Our discussions with IRS officials and representatives of various business community interest groups revealed that independent contractors are generally considered service providers, rather than manufacturers or sellers of goods. Even so, we could not use service providers as an exact surrogate for independent contractors. Neither the IRS sole proprietor tax gap nor TCMP data specifically identify sole proprietors whose incomes are primarily derived from providing services as opposed to those who primarily receive income from manufacturing or selling goods.

We tried to use depreciation and the presence of an information return for nonemployee compensation as ways to distinguish income derived from providing services as opposed to other types of income. However, these options did not work. We found no pattern in our analysis of depreciation that clearly differentiated between income earned by providing services and income derived from manufacturing and selling goods. Likewise, using information returns would have excluded service income that is not required to be reported on information returns (for example, income from providing services to individuals not engaged in a trade or business) and income that was not reported on information returns as required.

Lacking a specific definition of service providers, we made assumptions about sole proprietors, resulting in three service provider definitions. We then gave IRS information about sole proprietors in the 1988 TCMP database that met these three definitions. IRS used its tax gap model to prepare an estimate for each definition.

Our first service provider definition consisted of all sole proprietors from the TCMP database with no COGS. IRS instructions indicate that a business must complete the COGS section when the production, purchase, or sale of merchandise produced income. We reasoned that if sole proprietors had no COGS, then all their gross receipts must come from providing services. Accordingly, this group should represent the most stringent test for service providers.

The second definition of service providers consisted of all sole proprietors whose PBA code was not in the manufacturing, mining, and sales categories and whose COGS, as a percent of gross receipts, was at or below the industry average. For these sole proprietors, we reasoned that their gross receipts included some mix of payments for services provided and for materials used in providing those services. For example, gross receipts for

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**Appendix I**  
**Methodology for Identifying Industries as**  
**Service Providers**

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repairing plumbing fixtures in a building included charges for the repair service and the new fixtures. The cost of the fixtures can be shown as a part of COGS. We considered the sole proprietors at or below the industry average as primarily service providers. We used the IRS Statistics of Income data to develop industry averages for COGS as a percent of gross receipts.

The final group represents the broadest definition of service providers. On tax returns, IRS asks that sole proprietors categorize their businesses by using PBA codes. IRS has over 170 PBA codes that can be used to determine whether sole proprietors' primary business is service related. Relying on IRS' defined PBA codes, our third group includes all sole proprietors whose PBA codes fall into one of these service-related sectors.

In each of the three definitions of service providers, we included sole proprietors in the manufacturing, mining, and sales categories (i.e., nonservice sector) that paid no COGS. In the nonservice group, sole proprietors operating businesses such as food markets, dry goods stores, restaurants, or metal shops should have substantial COGS. For example, Statistics of Income data show that in the nonservice group COGS averaged almost 65 percent of gross receipts.<sup>12</sup> We reasoned that sole proprietors with PBA codes in this group and with no COGS were probably either providing services to the industries or were misclassified employees. Accordingly, we included them in each of our definitions. Table I.1 provides specific information about the number of service providers in each group plus the estimated population of those who were potentially misclassified workers.

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<sup>12</sup>In contrast, COGS for all industries not in the manufacturing, mining, or sales industries was less than 24 percent of gross receipts.

**Appendix I  
Methodology for Identifying Industries as  
Service Providers**

**Table I.1: Data on the Observations and Population Estimates Used to Make Tax Gap Analysis for 1988**

<b>Service provider groups</b>	<b>Number of observations in TCMP data</b>	<b>Estimated population</b>	<b>Sampling error (plus or minus)</b>
No COGS	9,939	9,152,583	332,440
At or below average COGS	11,614	10,269,196	317,278
As defined by IRS' PBA code	14,423	11,473,195	347,065
Potentially misclassified workers with over \$20,000 of income	393	187,418	21,816
Potentially misclassified workers with any amount of income	1,306	1,618,550	160,061

Source: The IRS 1988 TCMP.

IRS calculated the tax gap estimates using its tax gap model, which was developed to estimate federal income tax revenue lost from underreporting income and overstating deductions. For these estimates, IRS used data from its TCMP for tax year 1988 returns filed by individuals. The model also uses methodology developed by IRS to estimate unreported income that was not identified in the TCMP audits.<sup>13</sup> We did not verify tax gap data provided by IRS because we had no access to the IRS model. IRS has not calculated a sampling error for its tax gap estimates.

As part of its tax gap calculation, IRS makes an estimate for informal suppliers. IRS defines informal suppliers as individuals who provide products or services through informal arrangements, which frequently involve cash transactions. This special class of individuals is believed to include persons who are at the core of the so-called “underground economy.” IRS calculates the tax gap for informal suppliers differently than for other nonfarm sole proprietors. Rather than relying solely on TCMP data, IRS also uses estimates of income received by informal suppliers. These estimates are made by an outside consultant. In this report, we categorize the informal supplier tax gap separately from that of other sole proprietors.

<sup>13</sup>For more details on the IRS tax gap estimates, see *The Tax Gap: Definition, Studies, Assumptions, and Components*, (GAO/GGD-88-66BR Mar. 25, 1988, and GAO/T-GGD-88-22, Mar. 31, 1988).

# Summary of the 20 Common-Law Factors That Distinguish Employees From Independent Contractors

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Workers are generally employees if they

- must comply with employer's instructions about the work;
- receive training from or at the direction of the employer;
- provide services that are integrated into the business;
- provide services that must be rendered personally;
- hire, supervise, and pay assistants for the employer;
- have a continuing working relationship with the employer;
- must follow set hours of work;
- work full-time for an employer;
- must do their work on the employer's premises;
- must do their work in a sequence set by the employer;
- must submit regular reports to the employer;
- receive payments of regular amounts at set intervals;
- receive payments for business and/or traveling expenses;
- rely on the employer to furnish tools and material;
- lack a major investment in resources for providing services;
- cannot make a profit or suffer a loss from the services;
- work for one employer at a time;
- do not offer their services to the general public;
- can be fired by the employer; or
- may quit work anytime without incurring liability.

Source: Exhibit 4640-1, Internal Revenue Manual 4600 (Employment Tax Procedures).

# 1988 Tax Gap for Service Providers

**Table III.1: Estimated Tax Gap for Service Providers for 1988**

Dollars in millions			
Description of sector	1988 tax gap estimate		
	No COGS	Average COGS	Based on PBA codes
Construction services	\$698	\$1,287	\$2,196
Real estate, insurance, and financial services	541	593	796
Transportation and communication services	462	565	658
Business services	1,225	1,371	1,670
Personal services	35	551	779
Medical services	352	366	568
All other services	603	1,216	1,815
All other businesses with no COGS	610	610	610
Informal suppliers	9,385	9,807	10,335
<b>Total</b>	<b>\$13,911</b>	<b>\$16,366</b>	<b>\$19,433</b>

Source: The IRS tax gap model and TCMP database.

# Types of Service Providers by Sector

**Table IV.1: Types of Service Providers in the Construction Sector**

<b>PBA code</b>	<b>Description of service provider</b>
0018	Operative builders (building for own account)
0034	Residential building
0059	Nonresidential building
0075	Highway and street construction
0232	Plumbing, heating, and air conditioning
0257	Painting and paperhanging
0273	Electrical work
0299	Masonry, drywall, stone, and tile
0414	Carpeting and flooring
0430	Roofing, siding, and sheet metal
0455	Concrete work
0471	Water well drilling
0885	Other building trade contractors
3889	Other heavy construction

Source: 1988 TCMP database.

**Table IV.2: Types of Service Providers in the Real Estate, Insurance, and Financial Services Sector**

<b>PBA code</b>	<b>Description of service provider</b>
5512	Real estate agents and managers
5538	Operators and lessors of buildings
5553	Operators and lessors of other real property
5710	Subdividers and developers
5736	Insurance agents and services
5751	Security and commodity brokers, dealers, and investment services
5777	Other real estate, insurance, and financial activities

Source: 1988 TCMP database.

**Appendix IV**  
**Types of Service Providers by Sector**

**Table IV.3: Types of Service Providers in the Transportation and Communication Sectors**

<b>PBA code</b>	<b>Description of service provider</b>
6114	Taxicabs
6312	Bus and limousine transportation
6338	Trucking (except trash collection)
6510	Trash collection
6536	Public warehousing
6551	Water transportation
6619	Air transportation
6635	Travel agents and tour operators
6650	Other transportation and related services
6676	Communications services
6692	Utilities, including dumps, snowplowing, and road clearing

Source: 1988 TCMP database.

**Table IV.4: Types of Service Providers in the Business Services Sector**

<b>PBA code</b>	<b>Description of service provider</b>
7617	Legal services (or lawyer)
7633	Income tax preparation
7658	Accounting and bookkeeping
7674	Engineering, surveying, and architectural
7690	Management, consulting, and public relations
7716	Advertising, except direct mail
7732	Employment agencies and personnel supply
7757	Computer and data processing, including repair and leasing
7773	Equipment rental and leasing
7914	Investigative and protective services
7880	Other business services

Source: 1988 TCMP database.



**Appendix IV**  
**Types of Service Providers by Sector**

**Table IV.5: Types of Service Providers in the Personal Services Sector**

<b>PBA code</b>	<b>Description of service provider</b>
8110	Beauty shops or beauticians
8318	Barber shops or barbers
8334	Photographic portrait studios
8516	Shoe repair and shine services
8532	Funeral services and crematories
8714	Child day care
8730	Teaching or tutoring
8755	Counseling (except health practitioners)
8771	Ministers and chaplains
6882	Other personal services

Source: 1988 TCMP database.

**Table IV.6: Types of Service Providers in the Medical Services Sector**

<b>PBA code</b>	<b>Description of service provider</b>
9217	Offices and clinics of medical doctors
9233	Offices and clinics of dentists
9258	Osteopathic physicians and surgeons
9274	Chiropractors
9290	Optometrists
9415	Registered and practical nurses
9431	Other licensed health practitioners
9456	Dental laboratories
9472	Nursing and personal care facilities
9886	Other health services

Source: 1988 TCMP database.

**Appendix IV**  
**Types of Service Providers by Sector**

**Table IV.7: Types of Service Providers  
in All Other Service-Related  
Businesses**

<b>PBA code</b>	<b>Description of service provider</b>
1917	Soil preparation services
1933	Crop services
1958	Veterinary services, including pet
1974	Livestock breeding
1990	Other animal services
2113	Farm labor and management services
2212	Horticulture and landscaping services
2238	Forestry, except logging
2279	Fishing, hunting, and trapping
7096	Hotels, motels, and tourist homes
7211	Rooming and boarding houses
7237	Camps and camping parks
7419	Coin operated laundries and dry cleaning
7435	Other laundry, dry cleaning, and garment services
7450	Carpet and upholstery cleaning
7476	Janitorial and related services
8813	Automotive rental and leasing without driver
8839	Parking, except valet
8854	General automotive repair service
8870	Specialized automotive repair service
8896	Other automotive services (wash, towing, etc.)
9019	TV and audio equipment repair services
9035	Other electrical equipment repair service
9050	Reupholstery and furniture repair
2881	Other equipment repair services
8557	Physical fitness facilities
9613	Videotape rental stores
9639	Motion picture theaters
9654	Other motion picture and TV film and tape activity
9670	Bowling alleys
9696	Professional sports and racing
9811	Theatrical performers, musicians, agents, producers, and related services
9837	Other amusement and recreational services

Source: 1988 TCMP database.

# Population Estimates by Service Provider Definition and Sector

**Table V.1: Population Estimates for Service Providers With No COGS**

Description of sector	Population estimate of service providers with no COGS	
	Estimated number	Sampling error (plus or minus)
Construction services	899,098	123,848
Real estate, insurance, and financial services	1,105,244	101,930
Transportation and communication services	512,366	67,728
Business services	2,054,035	155,543
Personal services	1,550,542	152,537
Medical services	501,777	55,267
All other services	1,286,405	147,154
All other businesses with no COGS	1,243,115	137,544
<b>Total service providers with no COGS</b>	<b>9,152,583</b>	<b>332,440</b>
Percent of all sole proprietors	68.1%	3.6%

Source: The IRS tax gap model and TCMP database.

**Table V.2: Population Estimates for Service Providers With Average or Lower COGS**

Description of sector	Population estimate of service providers with average COGS	
	Estimated number	Sampling error (plus or minus)
Construction services	1,343,180	135,945
Real estate, insurance, and financial services	1,129,957	102,256
Transportation and communication services	546,740	68,340
Business services	2,231,821	163,622
Personal services	1,698,522	157,157
Medical services	521,696	55,627
All other services	1,554,165	151,367
All other businesses with no COGS	1,243,115	137,544
<b>Total service providers with average COGS</b>	<b>10,269,196</b>	<b>317,278</b>
Percent of all sole proprietors	76.4%	3.3%

Source: The IRS tax gap model and TCMP database.

**Appendix V**  
**Population Estimates by Service Provider**  
**Definition and Sector**

**Table V.3: Population Estimates for Service Providers Defined by the PBA Code**

<b>Description of sector</b>	<b>Population estimate of service providers defined by the PBA code</b>	
	<b>Estimated number</b>	<b>Sampling error (plus or minus)</b>
Construction services	1,707,309	141,375
Real estate, insurance, and financial services	1,178,942	103,819
Transportation and communication services	597,864	71,842
Business services	2,408,087	167,606
Personal services	1,889,072	161,994
Medical services	593,901	56,818
All other services	1,854,906	157,816
All other businesses with no COGS	1,243,115	137,544
<b>Total service providers as defined by the PBA code</b>	<b>11,473,195</b>	<b>347,065</b>
Percent of all sole proprietors	85.3%	3.0%

Source: The IRS tax gap model and TCMP database.

# Allocation of Informal Supplier Tax Gap

The tax gap for informal suppliers accounted for a large part of the overall service provider tax gap. IRS does not routinely allocate this estimate among the various business sectors because no generally accepted methodology existed for making such an allocation. Also, allocating the informal supplier tax gap estimate among the various sectors adds an additional degree of uncertainty to the estimate. To provide additional information, we developed tables VI.1 to VI.3 in which we allocated the informal supplier tax gap among the business sectors. Based on discussions with IRS officials, we allocated the informal supplier tax gap by the proportion of noncompliance found in TCMP for the sector.

**Table VI.1: Allocation of Informal Supplier Tax Gap by Proportion of Noncompliance (No COGS)**

Description of sector	Tax gap estimate		
	Informal suppliers	All other service providers	Total service providers
Construction services	\$ 5,923	\$ 1,209	<b>\$ 7,132</b>
Real estate, insurance, and financial services	0	937	<b>937</b>
Transportation and communication services	1,068	800	<b>1,868</b>
Business services	1,121	2,122	<b>3,243</b>
Personal services	2,005	61	<b>2,066</b>
Medical services	317	610	<b>927</b>
All other services	1,200	1,045	<b>2,245</b>
All other services with no COGS	1,557	1,057	<b>2,614</b>
<b>Total</b>	<b>\$13,191</b>	<b>\$ 7,841</b>	<b>\$21,032</b>

Source: TCMP database and the IRS tax gap model.

**Appendix VI**  
**Allocation of Informal Supplier Tax Gap**

**Table VI.2: Allocation of Informal Supplier Tax Gap by Proportion of Noncompliance (Average or Lower COGS)**

Dollars in millions			
Description of sector	Informal suppliers	Tax gap estimate	
		All other service providers	Total service providers
Construction services	\$ 6,189	\$ 2,229	<b>\$ 8,418</b>
Real estate, insurance, and financial services	0	1,027	<b>1,027</b>
Transportation and communication services	1,117	979	<b>2,096</b>
Business services	1,172	2,375	<b>3,547</b>
Personal services	2,095	954	<b>3,049</b>
Medical services	331	634	<b>965</b>
All other services	1,254	2,106	<b>3,360</b>
All other services with no COGS	1,627	1,057	<b>2,684</b>
<b>Total</b>	<b>\$13,784</b>	<b>\$11,361</b>	<b>\$25,145</b>

Source: TCMP database and the IRS tax gap model.

**Table VI.3: Allocation of Informal Supplier Tax Gap by Proportion of Noncompliance (PBA Code)**

Dollars in millions			
Description of sector	Informal suppliers	Tax gap estimate	
		All other service providers	Total service providers
Construction services	\$ 6,522	\$ 3,804	<b>\$10,326</b>
Real estate, insurance, and financial services	0	1,379	<b>1,379</b>
Transportation and communication services	1,177	1,140	<b>2,317</b>
Business services	1,235	2,893	<b>4,128</b>
Personal services	2,208	1,349	<b>3,557</b>
Medical services	349	984	<b>1,333</b>
All other services	1,322	3,144	<b>4,466</b>
All other services with no COGS	1,714	1,057	<b>2,771</b>
<b>Total</b>	<b>\$14,526</b>	<b>\$15,750</b>	<b>\$30,276</b>

Source: TCMP database and the IRS tax gap model.

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