

Since we began collecting information on the construction industry in 1979, questions relating to service billing rates have cropped up on a regular basis. Though our forté is compensation, we have responded to client requests and gathered general information on specialty trade billing rates in conjunction with our craft wage surveys.

# SERVICE BILLING RATES \$

BY JEFFREY M. ROBINSON & RONALD C. PHILLIPS

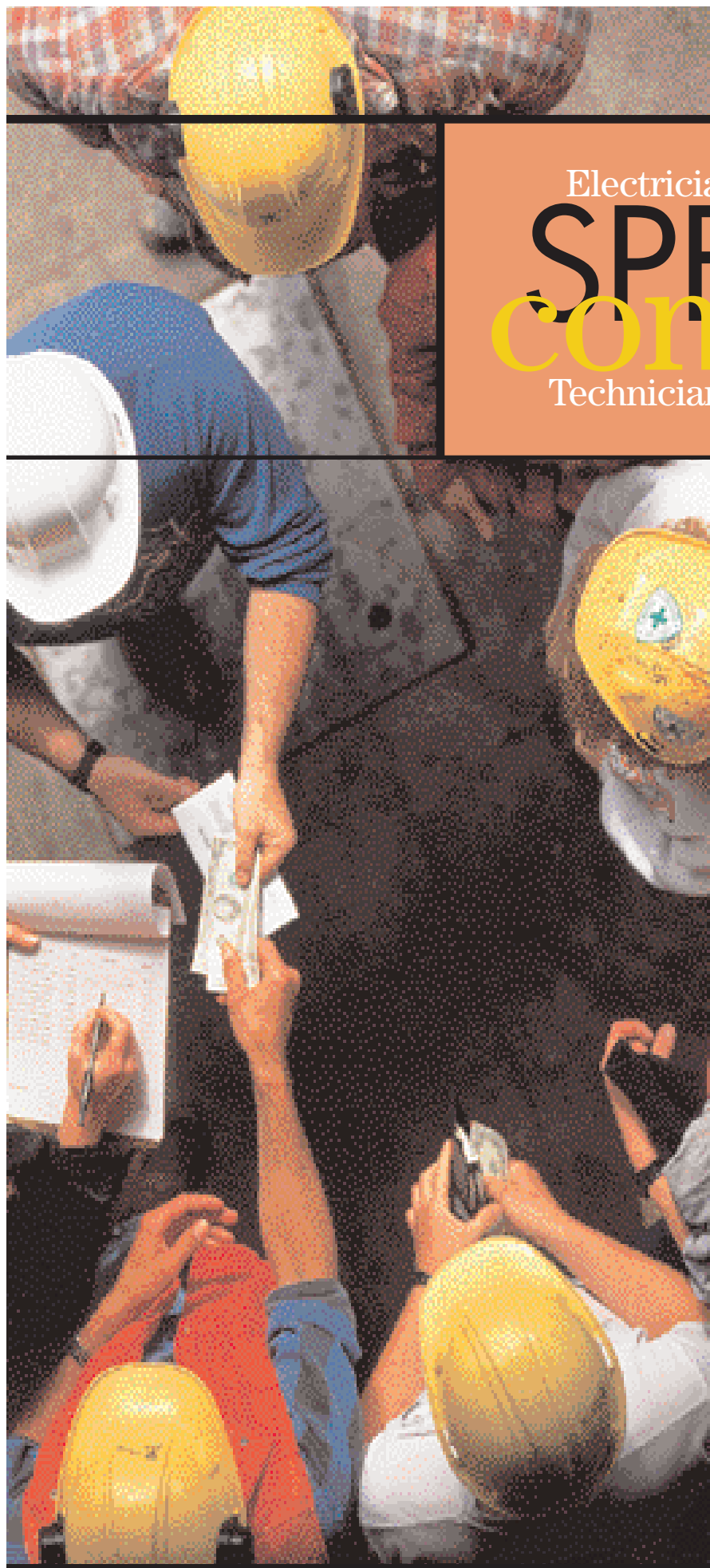
This collection of data typically included the billing rate for journeyman and material markups, but did not delve into the details of how billing rates were set. However, several clients recently asked us to pursue this detail ...

In doing so, the importance of the service side of a subcontractor's operations finally became clear.

Our "2002 Service Billing Rates Survey," found that 38% of specialty contractor revenues are generated by service work. It may be

a little more for mechanical firms and a little less for electrical firms – but, overall, it's 38%.

Now we understand why our clients wanted to know what their competitors were doing!



Electrician Voice/Data Installer HVAC  
**SPECIALTY**  
Contractors  
Technician Plumber Sheet Metal Worker

### Introduction

This article focuses on the standard billing rate practices of the specialty contractor, summarizing the information collected in our 2002 survey. It addresses both benchmark billing rates and the general charges associated with service calls. To do this, we will discuss the following issues:

- First-hour charges, minimum charges, and trip charges
- Billing rate components
- Equipment, subcontractor, and material markups
- Time and material (T&M) vs. firm price practices
- Negotiated items
- Billing rate multipliers

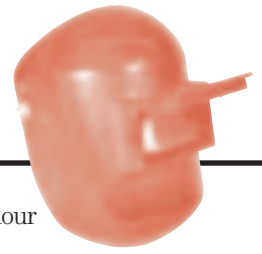
### Billing Rates

The survey identified the journeyman billing rate, apprentice billing rate, and the first-hour journeyman rate (if different), and examined any trip/travel charges associated with a service call. Survey respondents provided rate information in two categories: residential and commercial rates. These rates were then further broken down by type of client, revenue, and geographic location.

For our purposes here, we will focus on commercial rates and the journeyman classification.

### HOURLY RATES

Table 1, on the next page, reports the national billing rates for commercial service calls for five employee classifications.



**TABLE 1**

Hourly Billing Rate	25th Percentile	Average	50th Percentile	75th Percentile
Electrician	46.00	56.60	55.00	65.00
Voice/Data Installer	47.50	56.27	55.00	67.50
HVAC Technician	57.50	68.29	65.88	77.00
Plumber	55.00	66.69	65.00	78.00
Sheet Metal Worker	50.00	58.88	60.00	66.00

As you might expect, the range of hourly billing rates was wide, extending from a low of \$24.50 to a high of \$178. The difference between the average and the median, however, is relatively close, with a maximum of only \$2.41 between these two marks in the HVAC technician classification. The widest variation occurs in the plumber classification, with a \$23 difference between the 25th and 75th percentiles.

**BILLING RATE INCREASES**

Overall, 53% of the companies indicated they would raise their billing rates an average of 3.1% this year. There was very little difference in projected increases by type of service client or by revenue size of the company.

There was, however, a noticeable difference by geographic region. In the Northeast, 67% of the firms plan to increase their rates 4.2%, while only 30% of the firms in the Southeast and the 36% of the firms in the Pacific Northwest are increasing billing rates (1.8% and 1.7%, respectively).

**FIRST-HOUR RATES**

Many companies utilize some combination of higher first-hour rates, minimum charges, and trip charges for service work. For example, the first-hour charge averaged \$68.26 for electricians, compared to the average hourly rate of \$56.60. For plumbers, the first-hour charge averaged \$78.13 vs. an average billing rate of \$66.69.

Twenty-five percent of the firms indicated a first-hour charge of \$79 or more for electricians and \$89 for plumbers. Firms with lower billing rates tended to bill one and a half times the usual rate for the first hour of time.

**MINIMUM CHARGES**

Minimum client charges varied widely; though, overall, they tended to be above the normal billing rate. However, a few firms indicated a minimum billing amount *below* a full-hour charge, which tended to skew the results downward. For

these firms, half-hour charges, quarter-hour charges, etc. were commonly indicated.

However, for the majority of the survey participants, minimum charges were normally above the usual billing rate. Of these firms, 25% had a minimum charge of at least \$82.50, while a few firms indicated \$125 to \$225 as a minimum, plus trip or truck charges. Once again, it was notable that many firms with lower billing rates indicated a minimum charge of one and a half or two hours.

**TRIP OR TRUCK CHARGES**

About a third of the companies indicated they added trip or truck charges as a billable item. Trip charges spread out in the mid-range, from a low of \$10 for electricians to a high of \$35 for HVAC technicians.



The median amount for mechanical trades fell at \$25 and \$20 for electricians and voice/data installers. These charges were, for the most part, an equipment fee.

In many cases, the travel time for service personnel (and sometimes a truck charge) was included as a percentage markup in the billing rate, as noted in the next section.

**Billing Rate Components**

The survey focused on several factors used in developing the billing rate, as shown in Table 2.

In some respects it is the *lack of variance* that deserves the attention in reviewing these percentages. Take note of how

**TABLE 2**

Billing Rate Factors	25th Percentile	Average	50th Percentile	75th Percentile
Employee Benefits	16.0%	21.5%	21.0%	28.0%
Mandated Benefits	11.0%	13.8%	13.1%	16.0%
Travel	5.0%	7.6%	6.0%	10.0%
Overhead	20.0%	30.3%	30.0%	40.0%
Profit	10.0%	16.1%	15.0%	20.0%
Small Tools	2.0%	4.4%	4.0%	5.0%
Overtime	15.0%	31.7%	30.0%	50.0%
Shift Differentials	7.0%	8.6%	8.0%	10.0%
Other	5.0%	11.7%	10.0%	20.0%

close the median and the average percentages are for most of the items listed. Typically, if there are incongruous numbers in a category, the average tends to skew toward that extreme.

### WHAT MAKES UP THE BILLING RATE?

As you would expect, and as Table 2 shows, mandated benefits, employee benefits, overhead, and profit were reported by all contractors. Travel and small tools components were reported by the majority of survey participants.

For ease of comparison, we converted all responses to a percentage markup. The range of responses can also be seen in Table 3.

Unlike the lack of variance we saw in rate components, it is the *extremes* that occur in markup rates that are the most interesting.

Note that 25% of the companies *add at least 100%* to the price of small material purchases as a markup to the client. (Note: There were even a few companies that reported tacking on *250% or more* to the cost of small material purchases.)



**PLEASE NOTE:**  
Don't get too excited about these extremes! A review of the responses indicated that many of the firms with large material markups also had *very low profit percentages* included in the hourly billing rate.  
  
In other words, it appears that the primary source of profit is in the material and equipment add-ons, not the hourly service rate. And, though we did not ask for a detailed response of how the markups were determined, it was repeatedly pointed out that these markups were *only* for service work.

### Firm Price, Time and Material, and Negotiated Items

Since the survey was titled "Service Billing Rates," we sought information about the service side of a specialty contractor's business. As previously noted, 38% of the contractor's overall revenues come from the service side of the business – leaving 62% to come from construction or installation.

#### FIRM PRICE WORK

The survey asked, "Do you calculate your billing rates differently for firm price vs. T&M?" The responses crossed back and forth between service and construction. Many of the remarks centered on the size or length of the activity, as these sample comments indicate:

*"For large jobs – 85% labor burden;  
small jobs – 95% labor burden;  
service work – 125% labor burden."*

TABLE 3				
Markups	25th Percentile	Average	50th Percentile	75th Percentile
Large Equipment	10.0%	20.3%	15.0%	25.0%
Subcontractors	10.0%	14.8%	15.0%	20.0%
Material Costs of:	Markups			
\$1 - \$50	30.0%	69.7%	50.0%	100.0%
\$51 - \$250	30.0%	52.5%	50.0%	75.0%
\$251 - \$500	25.0%	40.6%	35.0%	50.0%
Over \$500	20.0%	30.8%	25.0%	39.5%

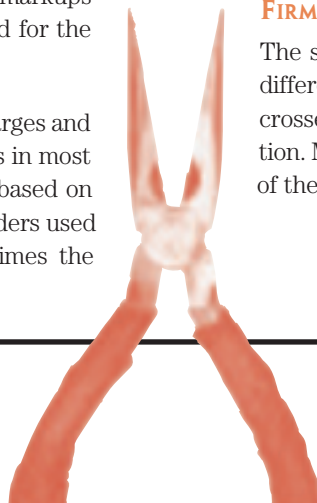
Less than 20% of the firms reported including a percentage for overtime or shift differentials in the billing rate, though several indicated they made an overall billing rate adjustment to compensate for these two items.

The component titled "Other" includes such things as uniforms, warranty work, truck charges not billed separately, vehicle insurance and repair, lost and/or unbillable time, promotional costs, consumables, miscellaneous small parts, etc.

### Equipment and Material Markups

The survey asked respondents to identify the markups applied to materials and equipment purchased for the client. The results can be seen in Table 3.

The median add-on for both subcontractor charges and large equipment costs was 15%. Material costs in most companies were computed on a sliding scale based on the contractor's cost of material. Service providers used either a multiplier approach (such as two times the cost) or a percentage add-on.



*“Firm price work normally involves a large block of hours and material, so we can sell it at a lower rate. Service normally involves only a few hours and little material, which requires a higher rate.”*

*“On longer construction jobs, we drop our hourly rate.”*

### TIME & MATERIAL WORK

About a quarter of the firms indicated that T&M work is calculated at a higher rate than firm price. Another quarter indicated that firm price is at a higher rate, while about half indicated that circumstances determine how rates are computed.

These circumstances can include the following:

- Service department backlog
- Size of project
- Timing of the project
- Service crew make-up
- Who the client is, etc.

Not surprisingly, the principal reason for firm price being higher is the uncertainty or risk involved. Conversely, several firms indicated that, since they *could* bill higher overhead and profit rates on T&M jobs, they did.

### NEGOTIATED ITEMS

In addition to the firm price/T&M inquiry, the survey attempted to determine what items are typically negotiated with the owner. After reviewing the replies, it appears that one survey response – “Almost anything, within reason” – best summarizes the comments we received.

In terms of specifics, the responses ranged from A to Z. Here are the most frequently reported negotiated items:

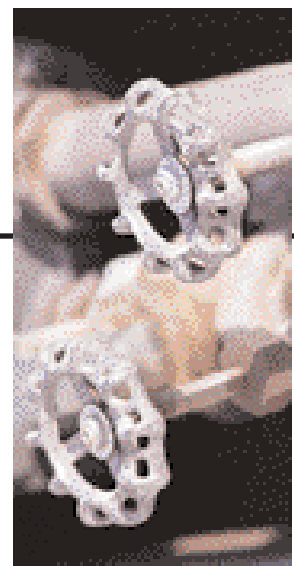
- Equipment rental
- Overhead
- Profit
- Markups on material, subcontractors, or equipment purchases

Other items mentioned include:

- Design of systems
- Changes in construction schedule or completion date
- Contract terms



- Overtime rates
- Payment terms
- Brand of equipment to be installed
- Markups by cost categories
- Overtime or shift work rates
- Owner restrictions
- Maintenance agreements
- Down payments for large equipment purchases
- The bottom-line price



### Billing Rate Multipliers

Recognizing that we could not capture all of the possible elements that make up the billing rate, we asked each company to provide its average wage rate paid to craft employees. A “Billing Rate Multiplier” (BRM) was then computed by dividing the company’s billing rate by the hourly taxable wage paid to employees. The national summary of BRMs is shown in Table 4.

**TABLE 4**

Multipliers	25th Percentile	Average	50th Percentile	75th Percentile
Electrician	2.3	2.7	2.7	3.1
Voice/Data Installer	2.6	3.1	3.1	3.5
HVAC Technician	2.8	3.4	3.2	3.8
Plumber	2.6	3.1	3.0	3.6
Sheet Metal Worker	2.8	3.1	3.1	3.6

### LOWER WAGE RATES = LOWER BILLING RATES?

You might think that contractors with lower employee wage rates would have an advantage by offering a lower billing rate – and, in some instances, you would be right. This is usually true within a close geographical area; but, when comparing one region to another, the story appears to change.

For instance, when we compared responses from contractors in the Southeastern states to those from the Great Lake





states, we found that, in terms of dollars per hour, the *average billing rate* between these two regions was fairly close.

But, when we compared the *taxable hourly wage rate*, we found that the Southeastern states reported wages between 18-37% lower than the Great Lakes states.

And, on top of that, the employee benefit rate was 5% less in the Southeastern states, resulting in a *higher BMR* for that region.

### DIFFERENCES IN REGIONS

Continuing in the Southeastern states, mechanical classifications averaged about 24% higher and electrical 11% higher than in the Great Lakes states. For example, the Southeastern plumber BRM is 3.6 – compared to the Great Lakes BRM of 2.8; the BRM for electricians is 2.9 compared to 2.6, respectively.

Once again, the extremes were notable; the 75th percentile for the HVAC technician in the Southeastern states reported a BRM at 4.5, which means 25% of the firms were using a multiplier of 4.5 or higher.

### WHAT DOES THIS MEAN?

Are the rates out of line? Probably not, in the long run. Taking into account the markups on materials, trip charges, minimum billing practices, and lower apprentice billing rates, some of the difference can be explained away.

In addition, as noted in the billing rate section, only 30% of contractors in the Southeastern states are raising their rates in 2002. When they do, the forecast calls for only a 1.8% increase. This is well below the 53% of contractors nationally who project an average increase of 3.1% (which is skewed downward by including the Southeastern states). In fact, over 60% of the contractors in six out of the ten regions are projecting above-average rate increases in 2002.

We suspect that, in time, market influences will force the billing rates to adjust in the Southeastern states to the prevailing multipliers.

### The Bottom-Line Rate

The bottom-line billing rate is important. But, knowing the average rate of \$66.69 for a plumber or \$56.60 for an electrician is not enough. It's also important to know the factors that created these rates and the associated charges that modify the overall service work costs. Factors include having benchmarks for:

- First-hour rates
- Minimum charges
- Markups
- Contracting differences (T&M vs. firm price)
- Negotiated items and rule-of-thumb multipliers

As our “2002 Service Billing Rate Survey” shows, a firm grasp of the numbers involved in building competitive billing rates is important. Why? Because, on average, 38% of a specialty contractor's business success depends on it. **BP**

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