

**The U.S. Producer Price Index for
Management Consulting Services
(NAICS 541610)**

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*** The views expressed are those of the author and do not reflect the policies of the U.S. Bureau of Labor Statistics or the views of other BLS staff members**

1. Definition of the service being priced

The primary output of management consulting firms is the provision of advice and assistance on management and general business issues and problems. Management consultants provide objective information, advice and guidance to clients, and, when requested, assist in the implementation of their recommendations. Business areas about which management consultants frequently provide advice include high level strategic and organizational planning, business financing, budgeting, employee hiring, benefits, and compensation issues, marketing, and production and logistics. Consulting outputs are typically delivered in the form of written and verbal studies, advice and recommendations.

According to the current North American Industry Classification System (NAICS) the management consulting industry includes the distinct activity of executive search consulting. Executive search is the identification and evaluation of candidates for senior-level executive positions. This typically includes the preparation of a formal position description, extensive research on potential candidates, in-depth interviews and background checks, and in some cases assistance with the negotiation of employment terms. The service is paid for by hiring firms, and not by job candidates.

2. Pricing unit of measure

The unit of measure for consulting transactions is generally per project or engagement. Project prices are usually composed of a series of time-based (hourly) fees for the individual professionals working on the engagement. Unit fees may also be charged in addition to professionals' hourly rates. These fees represent charges made for each unit of a specific deliverable that is created as part of the project. For example, a consulting firm working on developing a new employee training plan may charge for each manual that is delivered.

The unit of measure for executive search services is an individual placement of a professional into an executive position.

3. Market conditions and constraints

3A. Size of industry

The following table summarizes the size of the management consulting industry based on data collected as part of the 2002 U.S. Economic Census.

<i>NAICS</i>	<i>Industry Title</i>	<i>Receipts (\$1,000)</i>	<i>Paid Employees</i>
54161	Management consulting services	\$90,914,599	626,646
541611	Administrative management and general management consulting services	\$53,708,440	352,805
541612	Human resources and executive search consulting services	\$14,320,616	121,685
541613	Marketing consulting services	\$14,329,430	94,635
541614	Process, physical distribution, and logistics consulting services	\$ 6,905,966	43,927
541618	Other management consulting services	\$ 1,650,147	13,594

Management consulting industry revenue represents 10% of the total revenue earned by all firms classified within the NAICS sector for Professional, scientific, and technical services. This sector includes the services of lawyers, accountants, engineers, architects, and computer system designers, amongst others.

3B. Special conditions or restrictions

Following a series of auditing scandals that occurred between 2001 and 2002, the U.S. Congress passed legislation that barred accounting firms from performing certain consulting work for their auditing clients. This has led virtually all of the large accounting firms to spin off their consulting divisions into separate companies.

In the last ten years, the consulting market has gradually moved away from the simple provision of written reports and verbal recommendations. Many clients now expect consultants to actually implement their recommendations by either performing or arranging for and contracting with a third party provider to perform specific business process tasks. For example, a firm may recommend that a client outsource their telephone customer service operations. This recommendation service would be part of a consulting project primary to this industry. However, the consulting firm may then contract with the client for the operation of these call centers, which will typically be outsourced to a subcontracted third party provider affiliated with the consulting firm. Regardless of whether the consulting firm performs the function themselves or contracts it to a third party, this service is not considered primary to the management consulting industry.

There are also other situations in which a consulting project may lead to a firm providing additional non-primary activities. For example, a consultant working on a human resources project may advise that a client automate certain processes within their human resources department. If the firm merely advises on the optimal software to use for this task, this work is considered as part of the consulting project. If, on the other hand, they do some custom programming (primary to the Custom Computer Programming Services industry) and design (primary to the Computer Systems Design Services industry) of the installed software themselves and turnover for these services does not account for the

plurality of the firm's revenue, then they would be captured as non-primary services for the consulting industry.

As these implementation projects become increasingly important to consulting firms, some may ultimately move from being primarily classified as management consultants to being classified as computer systems design or custom software programming firms. The process of determining the primary classification of firms that provide these services was often difficult, and this complicated the sampling process.

3C. Record keeping practices

Most companies within this industry maintain pricing records at their headquarters location. As a result, establishments in our sample were clustered, so that all data for each company was collected at the headquarters, rather than at each individual location for the firm.

The pricing methodology used by the Producer Price Index (PPI) calls for average prices to be collected. In general, larger consulting firms are more likely to maintain records in such a way as to allow for collection of this data. In most cases, small companies are not able to provide average prices.

4. Standard classification structure

Whereas virtually all other U.S. Bureau of Labor Statistics PPI's are published at the 6-digit North American Industry Classification System (NAICS) code level, the PPI for Management Consulting Services corresponds to the 5-digit NAICS code 54161. In order to be consistent with PPI systems, this has been re-coded with the "false" NAICS code 541610. The five 6-digit NAICS industries that compose 54161 are included as product line detail. These lines include;

- **Administrative Management and General Management Consulting Services**
The provision of operating advice and assistance to businesses and other organizations on administrative management issues, such as financial planning and budgeting, equity and asset management, records management, office planning, strategic and organizational planning, site selection, new business startup, and business process improvement.
- **Human Resources and Executive Search Consulting Services**
The provision of advice and assistance to businesses and other organizations in one or more of the following areas: (1) human resource and personnel policies, practices, and procedures; (2) employee benefits planning, communication and administration; (3) compensation systems planning; (4) wage and salary administration; and (5) executive search and recruitment.

- **Marketing Consulting Services**
The provision of operating advice and assistance to businesses and other organizations on marketing issues, such as developing marketing objectives and policies, sales forecasting, new product development and pricing, licensing and franchise planning, and marketing planning and strategy.
- **Process, Physical Distribution, and Logistics Consulting Services**
The provision of operating advice and assistance to businesses and other organizations in areas such as: (1) manufacturing operations improvement; (2) productivity improvement; (3) production planning and control; (4) quality assurance and quality control; (5) inventory management; (6) distribution networks; (7) warehouse use, operations, and utilization; (8) transportation and shipment of goods and materials; and (9) materials management and handling.
- **Other Management Consulting Services**
The provision of all services not mentioned in any of the other categories. Telecommunications and utilities management consulting services are included in this service area.

This alternative strategy of publishing this index at the 5-digit level was used because management consulting establishments frequently provide services across these multiple lines. If each of these lines were published as a unique index, a large number of transactions would be classified as non-primary in each respective industry. In addition, the classification of establishments would also change over time as firms are easily able to shift their service line offerings from amongst these five categories.

Virtually all of the services classified in NAICS 54161 concord with ISIC 7414, Business and management consultancy activities. Executive search consulting services, however, are classified in ISIC 7491, Labour recruitment and provision of personnel. Other minor areas of management consulting services that do not concord with ISIC 7414 include freight rate consulting (ISIC 6309, Activities of other transport agencies) and actuarial consulting (ISIC 6720, Activities auxiliary to insurance and pension funding).

The level of detail included with the NAICS 54161 industries that the U.S. PPI used as product detail extends beyond that provided by the ISIC code of 7414, which simply includes all business and management consultancy activities. The industry-level categories provided by NAICS have been found to be clear, distinct, and useful for analytical purposes. Since the PPI structure includes no detail beyond NAICS industry codes, there is no concordance with the more detailed service lines included in the North American Product Classification System (NAPCS). Examples of service lines included in the NAPCS framework include corporate development and restructuring consulting, compensation and benefits consulting, and integrated supply chain management consulting.

5. Evaluation of standard classification structure

The transitioning of this industry from pure strategic consulting and advice to frequent implementation of information technology solutions and business process outsourcing has made it challenging to determine the proper definition of consulting firms. The NAICS classification draws a fairly hard line in stating that the activities of this industry are strictly limited to the provision of advice and assistance. As an increasing proportion of consulting projects conclude with some form of system automation or implementation of new software, this line may need to be re-evaluated in the future.

Under the pre-NAICS Standard Industry Classification (SIC) system, executive search services had been classified as part of the Employment agencies industry. This conforms more closely with the ISIC treatment of this area. As of 2007, executive search services will again be reclassified out of the Management consulting industry. Executive search services will become a unique 6-digit NAICS industry in the Administrative and support services sector, alongside the Employment placement and Temporary help industries. Firms that perform executive search services typically restrict their service offerings only to that area, so this change should be easy to implement from a PPI perspective.

6. National accounts concepts

The national accounts are handled in the U.S. by the Bureau of Economic Analysis (BEA). The BEA publishes quantity and price measures of industry output, input, and value added at roughly the 3-digit NAICS level-of-detail for all private industries and government. Most of the services PPI's published by the U.S Bureau of Labor Statistics (BLS) are used to deflate these industries' outputs and inputs. The PPI for Management consulting services is scheduled to be introduced in 2007. Once it is published, this index could potentially be used to significantly improve the accuracy of BEA's quantity and price measures for this industry area. BEA typically analyzes both the PPI index methodology and any historical price movements for a time before deciding to use the particular index to calculate value added measures for use in the gross product originating national account.

7. Pricing methodology

Consulting firms typically have set hourly rates for each of the different levels of professionals on their staff. For example, separate rates may be set for partners, project managers, consultants, and associate consultants. These rates, however, will often be discounted. The percentage of these established hourly rates that consulting firms actually receive for the provision of service during a given period is known as their "realization rate". For example, if a consultant lists a rate of \$100 per hour and records a realization rate of 80%, they will actually receive \$80 per hour. Realization rates are the standard measure used by firms within the management consulting industry to track the actual effective price of their service.

One pricing methodology for this industry calls for collecting average realization rates. These average realization rates are calculated by comparing the total amount of revenue received for all projects offered within a selected service line area (one of the five categories listed in section four) to the amount that would have been received for these projects if all consultants had billed for all of their time at their listed rates.

In order to configure a model price from this average realization rate data, a group of specific contracts are selected during the initiation period. These contracts are used to specify the detailed services provided and establish benchmarks for weighting the rates of the different type of consultants that work on the selected group of projects. Respondents are asked to simply provide the list rates for each of the professionals who bill for their time on each of these projects. A total charge is calculated by multiplying the hours that each consultant worked on the selected project by their listed rates. This total is then adjusted by the service line average realization rate. Any additional charges that are applied in the specific contracts (i.e. for billed travel or other business expenses) are then added to get the final price that is used in the index. The final price, therefore, is calculated using unit values weighted in a model.

In subsequent months, the respondent updates the listed hourly rates of each professional, the average realization rate, and the estimated cost of all billed travel and business expenses. In most cases, since the services provided in the model are held constant over time, the number of hours worked by each professional will remain unchanged. The hours would change if a particular process or technology change takes place that alters the length of time it takes the consultants to do a particular task. Again, since the services provided in the model are unchanged, the change in the number of hours is shown as a price change. Therefore, when using this index as part of the productivity calculation, worker productivity changes can be shown.

If average realization rate data is either not available or not appropriate because of frequent changes in either the mix of clients or the mix of professional staff involved in the projects, a project specific realization rate is collected. In these cases, the respondent estimates the realization rate they would earn if they were to work on the same contract that was selected in the initiation period during the current month.

In some instances, a contingency or success fee may be charged in addition to the project hourly rates. Contracts that include these fees call for payment to be made if a project is determined to have achieved a pre-established benchmark (for example, achieving a certain level of cost savings). In these cases, respondents are asked to approximate the dollar value of the contingency fees that they would earn if they were to achieve the stated benchmark on the given contract during each pricing period.

Virtually all executive search consulting transactions are priced as a percentage of the total first year compensation of the placed executive. This percentage fee is frequently called a retainer. The collected price for these transactions is established based on actual contracts selected during the initiation period. In subsequent months, respondents are asked to estimate the value of the total compensation that the placed executives would

earn if they were to be hired for similar roles by similar companies during the current month, and the percentage fee that the firm would charge for conducting the service. The price is calculated by multiplying these two figures together. This is a model price.

8. Quality adjustment methodology

One advantage of using average realization rates is that discounts given by firms (to their larger clients, for example) are readily captured in this rate. Another advantage of this method of pricing is that a broader range of services for each firm is able to be represented in the index without increasing the respondent burden. Average realization rates are not appropriate if changes in the prices charged for the services specified in the model are caused by changes in the mix of clients who purchase services or the mix of hours billed by different consultants.

For example, in one month there may be ten partners and twenty associate consultants working on human resources consulting projects for a sampled firm. The partners bill at a realization rate of 90% and associate consultants at a realization rate of 75%. In the next month, both the partners and associate consultants use the same listed hourly fees and bill the same realization rates. However, only five partners bill for their time during this period. Even though the hours worked by the consultants are held fixed based on the contract selected in the initiation period, this consultant mix change would still cause an incorrect price decrease through a drop in the average realization rate. More frequently, average realization rates shift because of changes in the mix of clients purchasing service. Larger clients are often offered discounted rates because of the larger number of billed hours that are required to complete their projects. If the mix of large and small clients purchasing service shifts from month to month, this may cause shifts in the average realization rate that are not based on any real price change. In both these cases, the average realization rate cannot be used in the price index. In these cases, project specific realization rates are priced and changes in these rates are measured on a monthly basis.

The advantage of collecting the project specific rate is that the respondent is able to continuously price a unique service (this is an advantage of model pricing regardless of the type of realization rate collected). Also, project specific rates are readily available and there is no additional burden on the respondent to perform the added average realization rate calculation. There are a few disadvantages to collecting a project specific rate. Discounts offered by the firm as a whole are not captured as readily. Also, when a firm can no longer accurately estimate prices for a particular project, substituting to a similar project and obtaining an estimate of the quality difference in the two projects and their project specific realization rates is very difficult.

Another difficulty with maintaining constant quality transactions involves the travel charges which are often billed to a client as part of the contract price. Once a contract is completed, respondents typically will not be able to estimate the price they would bill for specific travel itineraries that their consultants no longer travel. In order to minimize this problem, respondents are asked to provide contracts that involve transportation between locations that the firm's consultants frequently travel.

9. Evaluation of comparability with turnover/output measures

The U.S. Census Bureau calculates output data for each of the NAICS industries used as service line detail for the Management consulting PPI. As a result, the output data conforms exactly to the PPI detailed indexes for this industry. Turnover data is currently not available for any additional detailed service lines within any of the five management consulting areas for which the PPI will publish indexes. However, the PPI has no intention of attempting to publish further detailed indexes at this time.

10. Summary

The new PPI for Management consulting is scheduled to begin publishing in 2007. Therefore there is no series data available for this index at this time. Our experience with data collection and the early stages of repricing, however, have illustrated that some respondents have found the process of model price estimation challenging. This has been particularly true for smaller firms, who tend to offer a significant amount of custom services. These respondents generally find it difficult to estimate prices for these projects after they have been completed. Average prices have similarly been easier for large firms to provide. Still, there has been some difficulty in collecting average realization rates on a service line basis. As a result, a majority of the transactions collected have used project specific realization rates.

11. PPI quality assessment framework

Points	Category and Questions	Score	Score
		Average Realization Rate	Project Specific Realization Rate
	1. Shipment Price (Weight = .10)		
	<i>Select a. or b.</i>		
0	a. Price represents order pricing, actual price at shipment may well be different.		
100	b. Price represents the completion of service or a proxy measure for the completed transaction.	100	100
	2. Representative of current period production (Weight = .10)		
	<i>Select a. or b.</i>		
50	a. Emergence of new product lines or critical new product features has not occurred since the index reference period or since sample augmentation last done.	50	50
0	b. Emergence of new product lines or critical new product features has occurred since the index reference period or since sample augmentation last done.		
	<i>Select c. or d.</i>		
50	c. Product substitution usually occurs when an item becomes obsolete or, if model pricing applies, the models are regularly updated to reflect changes.	50	50

0	d. Product substitution usually does not occur when an item becomes obsolete or, if model pricing applies, the models are not regularly updated to reflect changes.		
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	3. Transaction price (Weight = .25)		
	<i>Select the one most prevalent in the industry</i>		
100	a. The price is the real transaction price or a list price that can always be assumed to be equal to the transaction price.		
50	b. The price is a list price not equal to the transaction price.		
100	c. The price is a unit value for a homogeneous group of products.		
50	d. The price is a unit value for a non-homogeneous group of products.	50	
75	e. The price is a model price.		75
50	f. The price is constructed from input cost plus profit and overhead mark-up.		
	4. Output price (Weight = .25)		
	<i>Select the one most prevalent in the industry</i>		
100	a. Recorded price reflects an actual transaction or average of actual transactions.		
75	b. Recorded price reflects a model transaction incorporating the pricing of all features found in an actual transaction.	75	75
50	c. Recorded price reflects a model transaction incorporating the pricing of only some of the features found in an actual transaction.		
50	d. Recorded price reflects some components of a transaction.		
50	e. Recorded price reflects input costs plus overhead and profit margins incorporating the pricing of all features found in an actual transaction.		
25	f. Recorded price reflects input costs plus overhead and profit margins incorporating the pricing of some of the features found in an actual transaction.		
0	g. Recorded price reflects charge out rates for fixed labor inputs not directly tied to a specific quantity of output.		
	5. Timely measure (Weight = .10)		
	<i>Select a. or b.</i>		
50	a. Pricing data reflect the service provision in the current period and are not lagged.	50	50
0	b. Pricing data are lagged.		
	<i>Select c., d., or e.</i>		
50	c. Pricing data reflect an average over the entire period.	50	50
40	d. Pricing data reflect an average of multiple measurements over a portion of the period.		
25	e. Pricing data reflect a single point in time.		
	6. Constant quality maintained (Weight = .20)		
	<i>Select a. or b.</i>		
100	a. Rapid changes to product specification are not expected or, if they are, a good method to explicitly quality adjust is in use.	100	100
0	b. Rapid changes to product specification are expected and no explicit quality adjustment method is in use.		

	Total =	81.25	87.5
	Type A point range = over 90		
	Type B point range = 70 to 90	81.25	87.5
	Type C point range = less than 70		