VALUE STUDY

DESK MANUAL

Prepared for: **Department of Energy**

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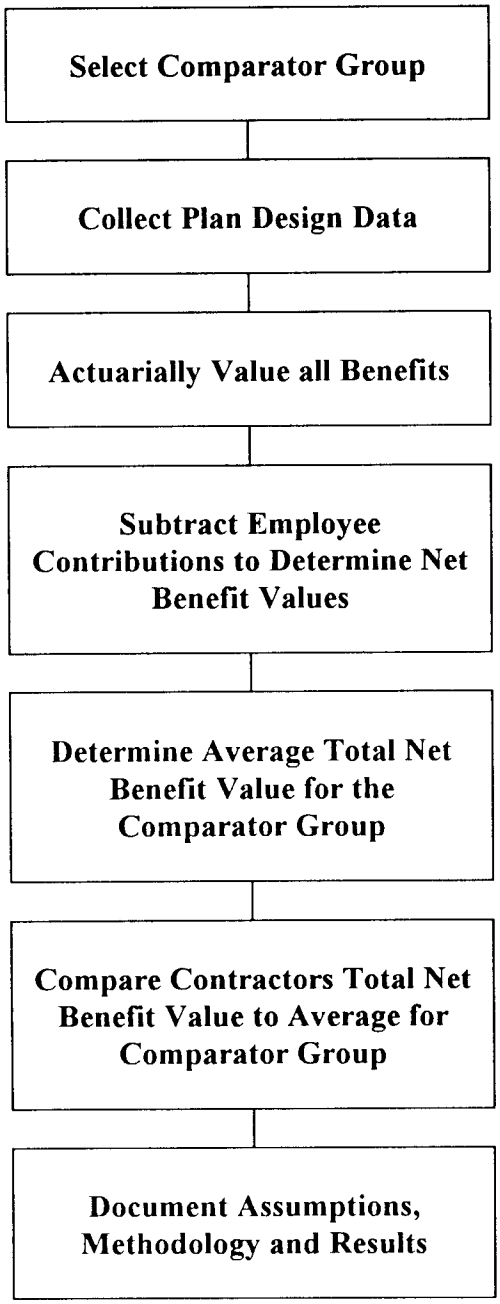
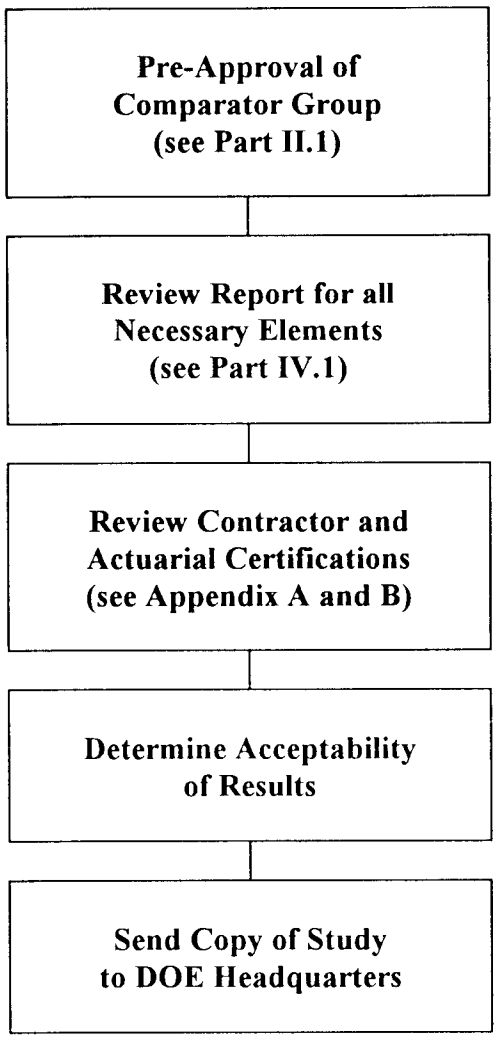
TYPICAL VALUE STUDY PROCESS

PERFORMED BY CONSULTANT



CONTRACTING OFFICER
VALUE STUDY PROCESS
(see checklist in Appendix C)



General Background Information

A "Value Study" may be used in lieu of a "Cost Study" to satisfy the requirements of DOE O 350.1. A Value Study is defined as an actuarial study which is intended to measure the relative worth of competing programs to employees regardless of the actual cost of such programs to the employer.

The study is performed using a single methodology and set of assumptions to value all competing programs. By doing so, it "normalizes" all variables which impact the cost of the programs other than differences in plan design and benefit levels themselves. Examples of variables which impact contractor cost which are "normalized" in a Value Study are: demographics, election patterns, funding practices, geographic factors, negotiated pricing, turnover and retirement rates, interest and salary increase assumptions.

Value Study results make it possible for a contractor with an average benefit package to pass DOE guidelines even if due to the variables discussed above the contractor has costs which exceed DOE guidelines. Thus a contractor is not held responsible for certain factors over which they have only limited control and is held accountable primarily for the value of the plan design provided.

DOE Requirements under DOE O 350.1

DOE O 350.1 Chapter V - Benefits
4. Responsibilities
   b. Heads of Contracting Activities

(6) For other than corporate benefit programs, approve the contractor's methodology for evaluating its currently approved welfare benefits programs, consistent with the provisions in the Contractor Requirements Document and (a) and (b) below. Either the U.S. Chamber of Commerce Benefit Survey comparison method (average benefit cost per full-time equivalent employee) or the Value Study method (net benefit value) may be used in this evaluation to establish an appropriate comparison.

(a) When the contractor's cost or value is within the range of acceptability (i.e., no more than 5 % above the comparator for other organizations), no further action is required.

(b) When the contractor's cost or value is greater than 5 percent above the comparator for other organizations, a corrective action plan to achieve conformance with the range of acceptability defined in (a) above will be required, unless otherwise justified in writing.

(7) Instruct contractors on the conduct and use of the methods for evaluating contractor welfare benefit programs using either the U.S. Chamber of Commerce Benefits Study or the Value Study method consistent with the guidance provided by the Deputy Assistant Secretary for Procurement and Assistance Management.

(8) Approve a contractor's corrective action plan and evaluate contractor progress against the plan.

(9) Approve contractor benefit programs and program changes in accordance with the criteria set forth in the Contract Requirements Document. If the program or changes result in the contractor's cost or value exceeding the range of acceptability defined in 4.b.(6)(a) above, the program or changes will only be acceptable if offset by changes that result in the contractor's costs or value being within the range of acceptability.

DOE Requirements under DOE O 350.1 *(continued)*

DOE O 350.1 Chapter V - Benefits
Attachment 1
Contractor Requirements Document
Employee Benefits

2. Contractors shall submit the following to the Contracting Officer for approval, except where the Contracting Officer has approved the adoption by the contractor of corporate benefit programs in their entirety.

   a. An evaluation of Contractor Benefit Programs using a professionally recognized measure to compare their benefit programs to other organizations (either a Value Study or a U.S. Chamber of Commerce (COC) Employee Benefit Survey Comparison based on facility size). The contractor Value Study or COC survey results must fall within the following acceptable values: 1) when contractor's per capita cost per full-time equivalent employee or net benefit value is within the range of acceptability (i.e., no more than 5 percent above the comparator for other organizations), no further action is required; 2) when the contractor per capita cost per full-time equivalent employee or net benefit value is greater than 5 percent above the comparator for other organizations, the contractor shall submit to the Contracting Officer a corrective action plan to achieve conformance with the range of acceptability defined above, unless otherwise justified in writing. The plan shall include specific benefit plan changes and a timetable for implementation and shall be approved by the Contracting Officer.

      Once a method of evaluation has been chosen, either a Value Study or COC, Contracting Officer approval shall be required to change the method in subsequent years. For contractors using the Value Study method, the studies shall be conducted every three years and are valid for three years, regardless of contractor transition. For contractors using the COC method, comparison results must be submitted annually to the Contracting Officer.

DOE Requirements under DOE O 350.1 *(Attachment 1 continued)*

(1) If a Value Study is used, the following requirements apply:

(a) The contractor shall determine a list of no less than 15 participants to be a part of the study. The Contracting Officer shall approve the list prior to the performance of the study.

(b) The Value Study shall include major non-statutory benefit plans offered by the contractor, including qualified defined benefit and defined contribution retirement and capital accumulation plans, and death, disability, health, and paid time-off welfare benefit programs.

(c) The Value Study must be performed by a national consulting firm with expertise in benefit value studies.

(d) To the extent this methodology does not address post-retirement benefit programs, contractors shall provide the Contracting Officer separate cost and plan design data on post-retirement benefits other than pensions compared to external benchmarks of a nationally recognized survey source once every three years.

DOE Guidelines for Preparation and Review

See Parts II, III and IV.

Areas of Concern

In order to provide assurance that the Value Study provides a valid measure of the appropriateness of a contractors benefit programs with respect to DOE guidelines, the following Value Study components are of critical importance:

- The comparator group of companies selected must represent the contractor's labor market
- The data utilized must be current, complete and accurate
- The consulting firm selected must have expertise in performing such studies
- The valuation methodology and assumptions must be reasonable for the benefits valued
- DOE guidelines must be followed with respect to development of results and documentation of methodology and assumptions
- Consistency of the comparator group, methodology and assumptions between initial and subsequent studies is essential

Implications of Results

General Background Information

A Cost Study provides a comparison of the per capita benefit costs per full-time equivalent employee of the contractor to published COC survey data. Thus a comparison is made of the actual cost of the contractor's plan to the average cost of the COC survey population.

A value study does not measure the contractor's or competing participant's actual costs *per se*. Instead, a theoretical cost value for each program is actuarially assigned based solely on the plan design provisions and a standard methodology and assumptions. Under this approach, all participants with the same plan provisions will be calculated to provide the same dollar "value" of benefits regardless of the participant's actual cost. Thus, random differences in cost due to a variety of non-benefit related variables are eliminated from the Value Study results.

A Value Study result that says the contractor is 1.05 of the comparator group (i.e., 5% above) indicates that the contractor's employees are actuarially projected to receive 5% more benefits than if they were covered under the average plan design of the comparator group. The actual cost of providing such benefits may be higher or lower than the average cost for the comparator group.

Implications of Results

Illustrations

Life insurance provides a simple illustration of the implications of the Value Study concept versus a Cost Study. Actual life insurance premiums vary by age of the underlying employee group and their prior claims experience. Under a Value Study, the impact of these variables on the results is eliminated.

	Contractor	Employer A	Employer B
Cost Study			
Life Insurance	$ 95,000	$ 100,000	$ 100,000
Actual Premium	$0.23/$1,000	$0.16/$1,000	$0.24/$1,000
Actual Monthly Cost	$ 21.85	$ 16.00	$ 24.00
Peer Group Average	$ 20.00		
% of Average	109.00%		
Value Study			
Life Insurance	$ 95,000	$ 100,000	$ 100,000
Theoretical Premium	$0.20/$1,000	$0.20/$1,000	$0.20/$1,000
Monthly Cost	$ 19.00	$ 20.00	$ 20.00
Peer Group Average	$ 20.00		
% of Average	95.00%		

Thus, a Value Study gives a much clearer picture than a Cost Study would of how the actual benefits to be received by an employee's beneficiary upon death compare to the average benefits paid by the comparator group.

Areas of Concern

Because a Value Study measures something totally different than cost, the results can be quite different than those produced by a Cost Study. Thus, a contractor selecting a Value Study approach to meeting DOE requirements should continue to do so in subsequent years, barring advance approval of the contracting officer. In no event should contractors be allowed to switch back and forth between study approaches in subsequent years merely for the purpose of passing DOE guidelines.

Demographic Differences

General Background Information

One weakness of a Cost Study is that an employer with high cost demographics can be judged to be non-compliant with DOE's 5% above average cost guidelines, even if it is necessary to offer "Average" benefits to attract and retain competent and productive employees. That is, under certain demographic profiles, an average benefit program will cost more than 5% above average.

A Value Study eliminates the impact of "unfavorable" demographics by utilizing a single demographic profile for assigning an actuarial value to each employer's benefit package.

Areas of Concern

The demographic profile used in the Value Study can skew the weighting of the relative values between different plans, i.e., health care and retirement benefits, or paid time off and disability coverage, etc. Thus, the demographic assumption used must be reasonable in comparison to the contractor's actual demographics. See Part III.2. for more information on the impact of demographics.

Election Patterns

General Background Information

One weakness of a Cost Study is than an employer with a higher percentage of family coverage, or higher percentage of 401(k) participation, than its comparator group can be judged to be non-compliant with DOE's 5% above average cost guidelines, even if it is necessary to offer "Average" benefits to attract and retain competent and productive employees. That is, under certain family coverage or 401(k) participation profiles, an average benefit program will cost more than 5% above average.

A Value Study eliminates the impact of "unfavorable" election patterns by utilizing a single set of election assumptions for assigning an actuarial value to each employers benefit package.

Areas of Concern

The election patterns assumed in the Value Study can skew the weighting of the relative values between different plans, i.e. healthcare and paid time-off, or defined benefit and 401(k) coverage, etc. Thus the election pattern assumptions used must be reasonable in comparison to the contractors actual election patterns. See Part III.2 for more information on the impact of election patterns.

Funding Differences

General Background Information

Cost information presented by the Chamber of Commerce in a Cost Study is impacted by employer funding decisions. It is impossible to assure and very unlikely that self-funded costs are calculated and reported on the same basis as insured programs. In addition, differences in funding levels, asset returns and actuarial assumptions ensure a broad range of possible cost for defined benefit programs. These differences are eliminated in a Value Study by using a single set of valuation assumptions and methodology for determining the value of competing programs.

Illustrations

A comparison of insured and self-funded plan rates show that even if the self-funded plan uses the same reserve levels and administrative expenses as an insured product (which in actual practice would probably not be the case) the insured plan will almost always include a claims fluctuation margin ranging from 2 to 5 percent. This results in the cost reported by employers differing even when the benefits are identical

	Insured	Self-Funded
Incurred and Paid Claims	$ 1,000	$ 1,000
Reserves	$ 250	$ 250
Administrative Expenses	$ 50	$ 50
Margin	$ 26	$ ----
	$ 1,326	$ 1,300

In addition, a defined benefit plan may have a cost of $0 even though it provides a significant value to plan participants. This can occur through a combination of contributing more than the minimum funding requirements in past years and high asset returns which can result in the plan being "fully funded" for tax purposes.

A Value Study eliminates the impact of both these issues by using a single set of valuation assumptions and methodology.

Funding Differences

Areas of Concern
The assumptions used in valuing a defined benefit plan should be a reasonable projection of future experience under the plan. See Part III.2. for additional information. In addition, this concern is covered by the Actuarial Certification contained in Appendix B. Any concerns in an actual study should be referred to the Headquarters Office for technical review.

Geographic Factors

General Background Information

Cost of providing medical coverage can vary dramatically based on where employees are located. For example, medical plan costs in Los Angeles may average 2 times the cost of the same plan in the rural midwest. Likewise, dental costs in Los Angeles may be 1.7 times the cost of the same plan in the rural midwest.

Thus, one weakness of a Cost Study is that an employer in a high cost geographic area can be judged to be non-compliant with DOE's 5% above average cost guidelines even if it is necessary to offer "Average" benefits to attract and retain competent and productive employees. That is, under certain geographic distributions of employees, an average benefit program will cost more than 5% above average.

A Value Study eliminates the impact of "unfavorable" geographic distributions of employees by utilizing a single set of actuarial cost factors regardless of the geographic area in which employees are located.

Negotiated Pricing

General Background Information

Significant differences in contract terms and rates can exist in either insured or administrative service only contracts for self-funded benefit programs. These differences clearly impact the results of a Cost Study. These differences are eliminated in a Value Study through the use of a single set of cost factors which are related strictly to benefit plan design. As such, the relative strength of the negotiator's expertise does not impact the Value Study results. In addition, most standard HMO plans will receive a higher relative value in a Value Study than a traditional indemnity medical plan even through the cost of the HMO may be lower due to it's managed care characteristics.

Areas of Concern

The DOE is concerned that its contractors are diligent in negotiating the best possible rates for their benefit programs. The results of a Value Study do not reflect the relative effectiveness of the contractors rate negotiations. Therefore, if a Value Study is utilized, the Contracting Officer should be particularly diligent in administering DOE O 350.1 Chapter V Paragraph (b)(1),(2), and (13) to assure that effective cost management of the benefits program is being pursued by the contractor.

Turnover and Retirement Issues

General Background Information

Employers with high turnover and low early retirement rates will realize less cost for their defined benefit retirement program than those with low turnover and high early retirement rates. Similar to demographic differences, election patterns, and geographic factors, these factors can cause one contractor to fail a Cost Study, while another contractor with identical benefit programs would pass due to such differences in actual experience. This issue is eliminated from a Value Study by using a common set of turnover and retirement assumptions to value each employer's plan.

Areas of Concern

The turnover and retirement assumptions used in the Value Study can skew the results of the defined benefit plan values due to differences in accrual rates and early retirement subsidies. These assumptions can also skew the comparison between different plans, i.e. defined benefit and 401(k). Thus the turnover and retirement assumptions used must be reasonable in comparison to the contractor's actual experience. See Part III.2 for more information on the impact of turnover and retirement assumptions.

Definition of Market

General Background Information

Unlike Cost Study guidelines which preclude selection of individual employers by the contractor, a Value Study is predicated on selection of a relatively small number of employers by the contractor to serve as their comparator group. This makes it critical that the comparator group selected is representative of the market in which the contractor competes for employees.

DOE Requirements under DOE O 350.1

DOE O 350.1 Chapter V - Benefits
Attachment 1, Paragraph 2.a.(1)

requires "If a Value Study is used, the following requirements apply

(a) The contractor shall determine a list of no less than 15 participants to be part of the study. The Contracting Officer shall approve the list prior to the performance of the study."

This shall be interpreted to mean 15 participants in addition to the contractor.

Definition of Market

DOE Guidelines for Preparation and Review

All 15 or more study participants must be approved in advance of the study by the Contracting Officer as representing the appropriate market in which they compete for employees.

The following guidance was previously provided to the Heads of Contracting Activity, operations staff, and contractors in the implementation of Chapter V value study methodology outlined in the chapter.

Value Study Methodology Recommendations:

- Value Study participants represent the contractor's parent organization, where applicable, and organizations in the same industries from which the contractor competes for employees.
- No other DOE contractors are required to be participants. However, if they are used, no more than 20 percent of the participants may be DOE contractors.
- Participants for multi-employer plans (site-wide plans) proportionately represent the different contractors within the plan.

The following additional clarification is provided to further define the competitive market from which comparator firms are to be selected:

- All study participants must compete for exempt level professional staff (non-executives) in the same industry as the contractor, or
- The contractor must document that they have gained or lost more than 4 exempt level professional staff (non-executives) to the comparator firm during the prior 5 years who have the same skill sets as professional staff of the comparator firm. Such conditions should be certified by the contractor as shown in Appendix A along with submission of appropriate documentation.
- Subsequent studies should use identical comparator groups unless advance approval is granted by the Contracting Officer.

Areas of Concern

The results of a Value Study are extremely sensitive to the comparator group selection. To avoid invalid conclusions, it is critical that the Contracting Officer approve the appropriateness of the market comparator group prior to commencement of the study. Subsequent studies should require use of an identical comparator group. The DOE is concerned that replacement of a "low value" participant with a "high value" participant in a subsequent study could significantly alter the study results in the contractor's favor. Lack of willingness to provide current data by a prior study participant should be independently verified by the Contracting Officer before they are allowed to be replaced in the comparator group of a subsequent study.

Database Implications

General Background Information

Several National Consulting firms maintain and update databases of employee benefit plan design for specified employers on an annual basis. However, data may be custom surveyed from employers not participating in the general database for the purpose of performing a Value Study.

DOE Requirements under DOE O 350.1

None

DOE Guidelines for Preparation and Review

The DOE is equally comfortable with the contractor selecting participants from an existing database or requesting their consultant to custom survey participants. Regardless of the approach however, participants:

- Must satisfy the "Definition of Market" to be included,
- Must have supplied current data (see Part II.3. Data Collection and Validation),
- Must meet the minimum number of participants in addition to the contractor (15), and
- Must remain consistent from one Value Study to the next.

The DOE recognizes that the cost of the study may be impacted by the need to custom survey participants in the initial or subsequent years. However, the lack of participation of approved participants in a particular database should not over ride the need to meet all four of the guidelines previously stated if such guidelines can be met through a custom survey.

Database Implications

Areas of Concern
In order to minimize the cost of the Value Study a contractor may wish to use participants in an existing database. The contractor must recognize that the use of a Value Study is a permissive alternative to a Cost Study and is not required if it has not been used previously. Thus, the contractor's desire to use an existing database will not be a justification for modifying DOE requirements for comparator group selection.

General Background Information

Employers may specify different levels of benefits for different subsets of employees. Typical subsets may include bargained employees, non-bargained hourly, salaried and executives. Subsets other than the four listed above may also be identified.

DOE Requirements under DOE O 350.1

None

DOE Guidelines for Preparation and Review

In order to ensure apples to apples comparisons, a single subset of employees must be specified. Benefits information applicable to that subset of employees for each of the comparator group employers must be collected and valued on a consistent basis. The benefits data collected for a Value Study under DOE guidelines should be that applicable to exempt level professional staff (non-executives). The contractor and consultant should each certify that the appropriate subset has been used in accordance with Appendices A and B.

Areas of Concern

The use of the definition "salaried" employee has specifically been avoided due to the overly broad use of the term. The term "salaried" may encompass non-exempt salaried, salaried non-professional, salaried professional, and executive staff. It has been determined that the value added by DOE contractors stems primarily from our access to the work product of their "exempt level professional staff". Therefore the benefit plans valued for each employer in the comparator group should be those provided to this level of employee.

Consultant Selection

General Background Information

It is the intent of the DOE to allow Value Studies to be performed by any qualified national consulting firm with expertise in performing such studies. In doing so, it is recognized that minor differences in the approach to data collection and validation, valuation methodology and assumptions, and report presentation will arise. It is not the intent of the DOE to prescribe how such studies are performed as to do so may pre-empt the contractor's freedom to choose their consultant. The guidelines in this manual have been developed with the intention that the broadest latitude be granted in the performance of such studies while ensuring compliance with the minimum standards necessary to provide valid and consistent results.

DOE Requirements under DOE O 350.1

DOE O 350.1 Chapter V - Benefits
Attachment 1, Paragraph 2.a.(1)(c)

requires that "the Value Study must be performed by a national consulting firm with expertise in benefit value studies."

DOE Guidelines for Preparation and Review

To satisfy the definitions as a national consulting group, the DOE would expect the consultant to have revenues in excess of $5,000,000 annually.

In addition, it is expected that a qualified actuary within the firm will provide a certification, as shown in Appendix B, of the firm's expertise in performing such studies.

Consultant Selection

Areas of Concern

It is difficult in advance to judge the qualifications of the selected consultant. However, the actuarial profession is expected to adhere to a Code of Professional Conduct. (see Appendix D) As such, the DOE is willing to rely on an actuarial certification as outlined in Appendix B to insure that the study has been performed in accordance with DOE guidelines regarding consultant expertise. In the absence of such an actuarial certification, it is expected the consultant will substitute such documentation and proof of it's expertise as necessary to satisfy the Deputy Assistant Secretary for Procurement and Assistance Management.

General Background Information

Critical to the accuracy of the valuation project is the collection of complete, accurate and up-to-date data on the comparator groups benefit plans. Due diligence should be exercised to ensure all data utilized is sufficient and appropriate to development of the Value Study results.

DOE Requirements under DOE O 350.1

None

DOE Guidelines for Preparation and Review

The contractor shall ensure that the comparison organization's benefit data is up-to-date (as of the beginning of the evaluation year). As a practical matter, this responsibility may be delegated to the consulting firm utilized.

Due to the possibility of evaluation years not corresponding with the calendar year or the plan years for the comparator group we will clarify the definition of up-to-date. Participant data is considered up-to-date if it accurately reflects the participants' plans as of the January 1 coincident with or immediately preceding (if the evaluation year is other than a calendar year) the first day of the evaluation year. For example if the evaluation year is July 1, 1998 through June 30, 1999, participant data which is accurate as of January 1, 1998 or later shall be considered up-to-date.

The consultant shall be required to include a statement as to the current status of the data as part of their actuarial certification (see Appendix B).

If in a subsequent year the participant is unwilling to supply current data, the Contracting Officer is responsible for independently verifying such position with the consultant. If it is determined that current data meeting the guidelines is not available, the contractor should request a change of comparator group through their DOE Contracting Officer with an explanation of the reason for such request. Such change in comparator group must be approved before the Value Study is undertaken.

Areas of Concern
Certain benefit plan provisions may change annually, e.g. employee contributions, or profit sharing contributions. These changes can materially affect the Value Study results. Therefore the Contracting Officer must enforce this aspect of the DOE requirements to ensure valid results are received.

General Background Information

The valuation methodology utilized to produce a Value Study is intended to develop a theoretical actuarial value of benefits provided by an employer. This theoretical value is developed using a single assumed demographic profile for all participants and a single set of economic assumptions. Thus, variations in value from one participant to the next are strictly related to differences in benefit provisions between the plans.

Demographics

General Background Information

Demographic data include age, salary and service data. Cost Studies are very sensitive to contractor demographics. Average costs recorded by the Chamber of Commerce reflect the average demographic profile of all employers in the database. Costs for all benefits valued are highly sensitive to these demographics, with higher costs generally associated with higher ages, higher salaries and longer service. Thus a contractor with an average benefit plan, but high cost demographics, can easily exceed 105% of average cost under the Chamber of Commerce. A Value Study eliminates the impact of these demographic differences by utilizing a common set of demographics to value all participants plans. Thus the result of the Value Study is not affected by differences between the demographic profiles of the contractor and the other study participants.

DOE Requirements under DOE O 350.1

None

DOE Guidelines for Preparation and Review

The Value Study report should include a statement regarding whether the contractors actual demographics were used to value the plans or an assumed general population demographic profile. Both alternatives are acceptable. However, once an alternative has been selected, the same approach should be used for all future Value Studies so that trends may be analyzed and consistency of analysis assured. Advance approval must be obtained from the Contracting Officer prior to changing the basis of the demographic profile for subsequent studies.

Demographics

Illustrations

The impact of differences in demographics on a Cost Study can be illustrated by comparing theoretical differences in cost between an assumed general population and an illustrative contractor population.

	General Population	Illustrative Contractor
Average Salary	$ 40,000	$ 51,000
Average Age	38	40
Average Service	8	12

Even with the minor demographic differences above, the contractor would likely fail a Cost Study if they offered an average benefit program. All salaried related benefits would cost 27.5% more than the general population. Benefits not related to pay (e.g., medical, dental, disability) would on average cost 2% to 6% more than average because of a 2 year older covered population. Paid Time Off and salary related defined benefit retirement benefits would not only cost 27.5% more based on salary, but would likely have higher costs based on higher vacation accrual rates due to the longer service.

Under a Value Study all participants' benefit plans in the above illustration would be valued under a single set of demographics (i.e., either the contractor's own demographics or a general population assumption). In either case, if the contractor offered average benefits, their value under the study would be 1.00 which would satisfy the DOE requirements.

Areas of Concern

Using either the contractor's demographics or general population demographic assumption should lead to satisfactory results if used consistently from study to study. The primary concern therefore is that the assumption may be changed from one study to the next or that a "non-standard" population assumption could be developed which favors the contractor's program. Both of these issues are addressed in the requested Actuarial Certification shown in Appendix B.

Election Patterns

General Background Information

Election patterns exist for a variety of benefits including family coverage categories for medical/dental coverage, 401(k) plans and partially contributory death and disability benefits. For each benefit, the employers cost may vary by the benefits elected by employees. Thus, election patterns can make a significant difference in the results of both cost studies and value studies. In addition, if multiple benefit options are offered, or even under flexible benefits, the distribution of benefit elections will impact both cost and value studies.

DOE Requirements under DOE O 350.1

None

DOE Guidelines for Preparation and Review

Using either the contractor's election patterns, a standard election pattern, the average election pattern for the participant group, or each participant's specific election pattern, is acceptable. However, once an alternative has been selected, the same approach should be used for all future Value Studies so that trends may be analyzed and consistency of analysis assured. Advance approval must be obtained from the Contracting Officer prior to changing the basis of the election patterns assumed for subsequent studies.

If an average election pattern for the participant group, or an assumed standard population election pattern is used, the assumption should be reviewed to assure that no benefit type (i.e., medical, dental, disability, etc.) with a company contribution is assumed to be elected less than 50% of the time. If an assumption of less than 50% is used, the assumed election pattern should be forwarded to the DOE/headquarters office for further technical review and approval.

With respect to elections within a benefit type (i.e., multiple medical and dental plans), either an assumption that everyone is enrolled in the plan with the highest participation or that gives a weighted value based on actual enrollment should be acceptable, as in practice only minor differences in value will occur.

Election Patterns

Illustrations

The impact of differences in election patterns on a Cost or Value Study can be illustrated by comparing the difference in cost/value between an assumed general population and an illustrative contractor population using an average plan design.

	General Population	Contractor Population
Single Medical Premium	$ 1,000	$ 1,000
Family Medical Premium	$ 2,750	$ 2,750
Single Enrollment	50%	20%
Family Enrollment	50%	80%
Cost/Value	$ 1,850	$ 2,400
401(k) Participation	60%	80%
Average Pay	$40,000	$51,000
Avg. 401(k) Match - $.50 Match on 6% of Pay	$ 720	$ 1,224

Areas of Concern

A Value Study utilizing employee only medical and dental values would be inappropriate as many employers traditionally subsidize family benefits. Likewise an assumption that everyone has family benefits would weight these benefits too highly in the Total Benefit Value. Any of the four approaches described in these guidelines is acceptable.

Interest and Salary Scale

General Background Information

An interest and salary scale assumption are used to project the economic value of long term benefit obligations. Examples of long term benefit obligations are defined benefit retirement plans, and other post-retirement benefit programs.

DOE Requirements under DOE O 350.1

None

DOE Guidelines for Preparation and Review

The headquarters office will issue guidance from time to time on a range of assumptions which is considered reasonable for the valuation of long term benefit obligations as part of a Value Study. At the current time the following range of assumptions is considered a safe harbor.

Interest:	6% to 9%
Salary Scale:	4% to 5.5%

Assumptions should be documented in the Value Study report. Assumptions falling outside this range must be submitted with supporting rationale to the DOE/headquarters office in advance of the study.

Areas of Concern

Long term benefit obligations can make up a significant portion (well in excess of 10%) of the total value of benefits provided. Thus, to avoid skewing to overall result, such benefits must be valued under "realistic" assumptions.

Missing Data

General Background Information

The validity of the Value Study results is directly related to the quality of the data utilized. Inaccurate and incomplete data will result in questionable results.

DOE Requirements under DOE O 350.1

None

DOE Guidelines for Preparation and Review

Because the contractor is in complete control of its own data, no study should be accepted based on incomplete data from the contractor.

With respect to other study participants in the comparator group, every effort must be made to assess and ensure completeness of the data utilized. If data is missing, the most conservative assumption should be made, i.e. the assumption resulting in the lowest relative value for the participant's plan. In many cases this will mean assuming that the participant's benefit for the missing data has a net benefit value of $0. Any other assumption requires submission of supporting rationale to the headquarters office in advance of study completion. An actuarial certification as to the completeness of the data may be relied upon by the Contracting Officer absent any evidence to the contrary.

Areas of Concern

Refer to Part II.2. on data collection and validation.

Turnover and Retirement

General Background Information

Turnover and retirement assumptions are used to project the economic value of long term benefit obligations. Examples of long term benefit obligations are defined benefits retirement plans, and other post-retirement benefit programs.

DOE Requirements under DOE O 350.1

None

DOE Guidelines for Preparation and Review

The DOE does not intend to be prescriptive with respect to these assumptions at this time. However the following assumptions are considered unacceptable for purposes of a Value Study, submitted to the DOE.

	Unacceptable Assumption
Turnover:	No Turnover
Retirement:	No Early Retirement

Assumptions for turnover and retirement should be documented in the Value Study Report for the purposes of verifying consistency between successive reports.

A statement should be included in the actuarial certification (appendix B) representing that the assumptions result in a reasonable projection of anticipated experience under the plans valued.

Areas of Concern

Manipulation of turnover and retirement assumptions can materially impact study results. Therefore the reasonableness of the assumptions must be certified by the actuary preparing the study.

Capital Accumulation

General Background Information

Any benefit program which provides for the accumulation of account balances to be paid in a subsequent tax year (e.g. following retirement, termination, death or disability) is considered a Capital Accumulation Plan. The account balance may be expressed in dollars or shares/units of stock depending on the underlying investments and accounting methodology.

The definition of capital accumulation plans includes all typical defined contribution plans, i.e. profit sharing, 401(k), money purchase. In addition it may includes Stock Purchase plans where a significant employer discount from market price is provided.

DOE Requirements under DOE O 350.1

DOE O 350.1 Chapter V - Benefits
Attachment 1, Paragraph 2.a.(1)(b)

requires "The Value Study shall include major non-statutory benefit plans offered by the contractor, including...capital accumulation plans,..."

DOE Guidelines for Preparation and Review

Some consultants will include stock purchase plans in their definition of Defined Contribution or Capital Accumulation Plans.

Other consultants include only employee stock ownership plans where all employees receive an allocation of company paid stock, or plans which match employee 401(k) contributions in stock, and do not include discounted stock purchase plans in their value study results under the theory that the discounted purchase is not a benefit per se.

DOE is willing to accept either approach with respect to the inclusion/exclusion of stock purchase plans as long as it is consistent in subsequent value studies performed for the contractor.

Issues regarding valuation of all other forms of capital accumulation are discussed in the section on defined contribution valuation.

Capital Accumulation

Areas of Concern
See defined contribution valuation section. Consistency in valuation methodology between subsequent Value Studies should be maintained to avoid gamesmanship of results.

De Minimus Benefits

General Background Information

Each consulting firm has developed standard procedures for collection of benefit data which are unique to their organization. As such, the level of plan design detail utilized by different consulting firms to develop the values in the study will be different.

DOE Requirements under DOE O 350.1

DOE O 350.1 Chapter V - Benefits
Attachment 1, Paragraph 2.a.(1)(b)

All major categories of benefits should be included with the possible exception of post-retirement benefit programs (other than defined benefit or defined contribution).

DOE Guidelines for Preparation and Review

It is the intent that all major benefit provisions be valued. For purposes of these guidelines, it is anticipated that the net benefit value of any benefit not valued in the study be less than 1% of the total net benefit value for the employer. Examples of such benefits may be dependent life coverage, accidental death and dismemberment benefits, hearing and in some cases vision benefits. Absent information to the contrary, the Contracting Officer may rely on a statement similar to that contained in the sample actuarial certification in Appendix B that all benefits have been included in the study which will have at least a 1% impact on the total net benefit value.

Death

General Background Information

Depending on the consulting firm utilized, the value of death benefits may be limited to life insurance, or may include the value of survivor income plans, and pre-retirement death benefits under a defined benefit or defined contribution plan.

DOE Requirements under DOE O 350.1

DOE O 350.1 Chapter V - Benefits
Attachment 1, Paragraph 2.a.(1)(b)

requires "The Value Study shall include major non-statutory benefit plans offered by the contractor including...death...benefit programs."

DOE Guidelines for Preparation and Review

Life insurance should be valued in all Value Studies. Ancillary death benefits provided under a defined benefit plan need not be explicitly valued as long as they are not valued for any of the participants. Death benefits payable under a defined contribution plan need not be valued if a "current total value" approach, rather than a "projected value" approach is used to value the defined contribution plan (see a description of these approaches in Part III.3. Valuation Methodology - Defined Contribution).

Areas of Concern

Substantial variation exists between consulting firms in the approach to valuing death benefits. While the DOE does not wish to be prescriptive in determining the approach used, it should follow the guidelines given above. In addition, once chosen, the methodology should remain consistent for subsequent valuations.

Defined Benefit

General Background Information

A defined benefit plan includes any promise to pay a pre-determined benefit upon retirement of a plan participant if they meet the plans eligibility criteria. The benefit is typically a function of pay and/or length of service.

DOE Requirements under DOE O 350.1

DOE O 350.1 Chapter V - Benefits
Attachment 1, Paragraph 2.a.(1)(b)

requires "The Value Study shall include major non-statutory benefit plans offered by the contractor including qualified defined benefit... programs."

DOE Guidelines for Preparation and Review

Under DOE O 350.1 Chapter V, Paragraph 4.b.(14) the DOE is responsible for reimbursement of retirement benefits paid subsequent to contract termination for those who have earned such benefits. Therefore, the value of such benefits should be calculated on a basis consistent with the methodology for calculating the Service Cost component of the Net Periodic Pension Cost under the Projected Unit Credit Method..

A statement from the valuation actuary similar to that contained in Appendix B shall be considered sufficient to verify such benefits have been properly valued, absent evidence to the contrary.

Areas of Concern

The consultant may or may not value ancillary benefits for death and disability provided through the defined benefit plan. Either approach is acceptable as long as it is applied consistently to all participants and does not change for subsequent valuations.

Defined Contribution

General Background Information

Defined contribution programs specify a formula by which a contribution is made to an individual account for the participant which is paid out in a subsequent tax year (e.g. following retirement, termination, death or disability). The definition of defined contribution plan includes profit sharing, 401(k) and money purchase plans.

DOE Requirements under DOE O 350.1

DOE O 350.1 Chapter V - Benefits
Attachment 1, Paragraph 2.a.(1)(b)

requires "The Value Study shall include major non-statutory benefit plans offered by the contractor including ....defined contribution retirement....."

DOE Guidelines for Preparation and Review

Two distinct methods are utilized by consultants to assign the value of defined contribution benefits. Either approach is acceptable as long as it is used consistently in subsequent valuations. No universal terminology has been agreed upon to describe these approaches. The terminology used in this guideline is intended to be descriptive in nature only.

The "current total value" approach assigns a value based on the expected contribution to the plan as a percentage of pay in the current year. Assumptions to election patterns for voluntary programs (e.g. 401(k)) are discussed in Part III.2. Assumptions.

A second approach used by some consulting firms is the "projected value" approach. Under such an approach the accumulated account balance is projected using assumptions regarding contributions, interest earnings, and turnover/retirement rates. This projected account balance is then assigned a value by a process similar to a defined benefit plan. As such, portions of the defined contribution plan value may be reassigned as death benefits, disability benefits, and retirement benefits in the final report.

Areas of Concern
Regardless of approach used, the consultant should meet the guidelines for valuation assumptions discussed in Part III.2. Assumptions. The approach and assumptions should be consistent in subsequent valuations in order to provide stable results.

Disability

General Background Information

Disability programs include sick leave, salary continuance, short term disability, long term disability, and any other program which provides benefits for employees who are unable to attend work due to illness or recovery from an accident. For reporting purposes such programs may be combined into one or more subcategories or reported separately.

DOE Requirements under DOE O 350.1

DOE O 350.1 Chapter V - Benefits
Attachment 1, Paragraph 2.a.(1)(b)

requires "The Value Study shall include major non-statutory benefit plans offered by the contractor including ....disability....."

DOE Guidelines for Preparation and Review

Disability benefits should be included in all Value Studies. Ancillary disability benefits provided under a defined benefit plan need not be explicitly valued as long as they are not valued for any of the participants. Disability benefits payable under a defined contribution plan need not be valued if a "current total value" approach, rather than a "projected value" approach is used to value the defined contribution plan (see a description of these approached in Part III.3. Valuation Methodology - Defined Contribution).

The report should cover valuation of all disability benefits regardless of duration and whether they are insured or administered as salary continuance/sick leave.

Disability

Areas of Concern
Informal leave programs (i.e., those available by supervisory approval only) should be included with a value of $0 unless the participating employer can provide average utilization data from which an assumed level of coverage can be derived. However, the contractor is required to provide average utilization data on any Informal Leave Programs provided to their employees - covering the contractor's employees as a $0 disability benefit value is considered unacceptable for purposes of developing Value Study results.

Flex

General Background Information

A Flexible Benefits program traditionally gives employees a pool of dollars they may use to spend on those benefits which are most desirable to them as an individual.

DOE Requirements under DOE O 350.1

None

DOE Guidelines for Preparation and Review

If any of the participating companies offer flexible benefits, the consultant should provide a description of how Flex credits impact the results of the study.

The Contracting Officer should review this description to determine how "excess flex credits" if any, are factored into the Total Net Benefit Value. "Excess flex credits" are defined as credits in excess of the amount necessary to purchase the benefits assumed to be selected.

In addition, if a cash option exists for benefits waived, the consultant should disclose the impact of these "waiver credits" on the calculation of the Total Net Benefit Value.

Areas of Concern

The treatment of flexible benefits is primarily only of concern if the contractor offers a flexible benefits program. If the contractor offers such a program it is important to make sure that the value of any excess flex credits or any waiver credits, is appropriately reflected in the "Total Net Benefit Value". As this is an area were substantial creativity in plan design may exist, the Contracting Officer may wish to request additional review of the methodology for dealing with flex credits by the Headquarters office if a flexible benefits program exists for the contractor.

Grandfathered Benefits

General Background Information

Employers who redesign their benefit program will occasionally choose to grandfather certain subgroups of employees in their prior benefits. Examples include grandfathering all employees hired before a specific date, or all employees who have met certain age and/or service requirements on the date of change.

DOE Requirements under DOE O 350.1

None

DOE Guidelines for Preparation and Review

If there is evidence of grandfathered benefits, the consultant should value both the current and grandfathered benefits levels. A single "Total Net Benefit Value" should be developed based on the weighted average value of the current and grandfathered benefits. The weighting is utilized to approximate the current mix of grandfathered and redesigned benefits. A simple weighting utilizing the relative proportion of grandfathered vs. non-grandfathered employees as of the beginning of the evaluation year (January 1 coincident with, or immediately preceding the evaluation year if it is other than a calendar year) may be used in lieu of specifically valuing each separate population.

Areas of Concern

Depending on the rate of turnover and the benefit involved, the impact of grandfathered benefits can be a significant cost factor for many years. The DOE guideline is designed to ensure that only reasonable costs of benefits are reimbursed. Thus, if the value of the grandfathered benefit were not recognized, a contractor's plan which might otherwise fail the 5% test could be brought into compliance by simply modifying benefits for future employees, even though the current benefit costs in total would fail the DOE acceptability tests.

Health

General Background Information

Health Benefits include medical and dental plans. Many plan designs may carve out pieces of the coverage for coverage under a stand alone plan, e.g. mental health and substance abuse, or prescription drugs. All significant Healthcare Benefits should be included in the Value Study.

DOE Requirements under DOE O 350.1

DOE O 350.1 Chapter V - Benefits
Attachment 1, Paragraph 2.a.(1)(b)

requires "The Value Study shall include major non-statutory benefit plans offered by the contractor including ....health....."

DOE Guidelines for Preparation and Review

All health benefits which could significantly impact the results of the Value Study should be included. The Contracting Officer may rely, lacking evidence to the contrary, on an actuarial certification similar to that contained in Appendix B which states that the anticipated net benefit value of any benefit not valued in the Value Study is less than 1% of the total net benefit value.

The consultant's valuation methodology should assign value based on the plan design parameters (e.g. deductibles, copays, limits, etc.) and not on the participants' cost of providing such benefits.

Areas of Concern

None, other than inclusion of all significant benefits be verified.

Paid Time Off

General Background Information

Paid Time Off includes vacation and holiday pay. Such programs may be administered on a stand alone basis or as part of a combined leave policy which includes coverage for brief periods of incapacity due to illness or injuries.

Most consultants value 1 day of paid time off as the equivalent of 1/260th of projected annual base pay. Thus, Paid Time Off has a significant impact on the Total Net Benefit Value.

DOE Requirements under DOE O 350.1

DOE O 350.1 Chapter V - Benefits
Attachment 1, Paragraph 2.a.(1)(b)

requires "The Value Study shall include major non-statutory benefit plans offered by the contractor including ....paid time off welfare benefit programs".

DOE Guidelines for Preparation and Review

The Contracting Officer may rely, lacking evidence to the contrary, on an actuarial certification similar to that contained in Appendix B which states that "The valuation assumptions and methodology utilized produce a reasonable projection of the value provided by the participant's benefit plans."

Areas of Concern

See Part III.4 Informal Programs - PTO

General Background Information

Post-Retirement Benefits for this purpose are defined as any benefit paid following retirement excluding qualified defined benefit and defined contribution retirement and capital accumulation plans.

DOE Requirements under DOE O 350.1

DOE O 350.1 Chapter V - Benefits
Attachment 1, Paragraph 2.a.(1)(d)

requires the following with respect to the Value Study methodology:

"To the extent this methodology does not address post-retirement benefit programs, contractors shall provide the Contracting Officer separate cost and plan design data on post-retirement benefits other than pensions compared to external benchmarks of a nationally recognized survey source once every three years."

DOE Guidelines for Preparation and Review

Under DOE O 350.1 Chapter V.4.b.(14) the DOE is responsible for reimbursement of post-retirement benefits paid subsequent to contract termination for those who have earned such benefits. Therefore if such benefits are part of a Value Study the value for such benefits should be calculated on a basis consistent with the methodology for calculating the Service Cost component of the Net Periodic Post-Retirement Benefit Cost under the Projected Unit Credit Method.

A statement from the valuation actuary similar to that contained in Appendix B shall be considered sufficient to verify such benefits have been properly valued absent evidence to the contrary.

Post-Retirement Benefits

Areas of Concern
Not all consulting firms have developed the standard methodology necessary to include Post-Retirement Benefits in their Value Study in accordance with DOE guidelines. Unless the consulting firm certifies that they have valued such programs in accordance with DOE guidelines, the total benefit values developed should exclude such benefits and they should be separately addressed in accordance with DOE O 350.1 Chapter V Attachment 1.2.a.(1)(d).

Paid Time Off

General Background Information

Some employers do not provide formal paid time off programs.

An example is University faculty who may be under contract to provide services for a stated number of months per year and are compensated based on the number of months under contract. During the contract period, faculty is responsible for providing services to the University and can take time off for illness, seminars, or other personal reasons without adversely affecting their compensation as long as their basic duties are performed.

DOE Requirements under DOE O 350.1

DOE O 350.1 Chapter V - Benefits
Attachment 1, Paragraph 2.a.(1)(b)

requires "The Value Study shall include major non-statutory benefit plans offered by the contractor including ....paid time off welfare benefit programs".

DOE Guidelines for Preparation and Review

The value assigned to informal PTO programs shall be calculated in accordance with the following philosophies, as interpreted in the following paragraphs

- The contractor's value must be substantiated by data from the contractor.
- The comparator group participants' values shall be assumed to be 0 unless utilization levels can be substantiated by actual data.

When valuing an informal PTO program of the contractor, if any, the consultant must rely on data provided by the contractor which substantiates the average number of days taken off with pay during a recent twelve month period and shall treat such days as if they have been provided under a formal program.

When valuing the informal PTO program of one of the comparator group participants, the consultant shall assume such participant has a PTO program with 0 value, absent evidence which can be substantiated to the contrary. However, the consultant may include the average number of holidays provided under formal programs by all other members of the comparator group as a minimum level of paid time off provided by the informal program.

Areas of Concern

The value of paid time off may not be excluded from the Value Study calculation of the "Total Net Benefit Value" simply because one or more of the comparator group participants provides such benefits under an informal PTO program. If such informal programs exist, they must be valued in the spirit of the previously outlined guidelines for preparation and review.

Other

General Background Information

Like paid time off, other benefits may be provided through informal programs. While very infrequent, an example is an employer who pays disability benefits at the discretion of the supervisor. If such benefits are significant, they should be included in the calculation of the "Total Net Benefit Value".

DOE Requirements under DOE O 350.1

None

DOE Guidelines for Preparation and Review

In the event an informal benefit program is discovered, it should be referred to the DOE/headquarters office for review to determine if it is likely to be a significant benefit. If it is determined to be significant, it should be valued in accordance with the following philosophy:

- The contractor's value must be substantiated by data from the contractor.
- The comparator group participants' values shall be assumed to be 0 unless higher utilization can be substantiated by actual data.

See Part III.4. Informal Programs Paid Time Off for an example of how such a philosophy is applied in a similar context.

Areas of Concern

The value of any significant benefit program may not be excluded from the Value Study calculation of the "Total Net Benefit Value" simple because one or more of the comparator group participants provides such benefits under an informal program. If such informal programs exist, they must be valued in the spirit of the previously outlined guidelines for preparation and review.

General Background Information

The net benefit value is the value of the benefit as assigned by the Value Study less any employee contributions. The sum of the net benefit values for each benefit is defined as the Total Net Benefit Value. The Value Study results should express the Total Net Benefit Value of the contractor as a percentage of the mean average Total Net Benefit Value for the comparator group.

DOE Requirements under DOE O 350.1

DOE O 350.1 Chapter V - Benefits
Paragraph 4.b.(6)(a)

specifies that the contractors "Pass" DOE requirements "When the contractor's cost or value is within the range of acceptability (i.e. no more than 5 percent above the comparator for other organizations),..."

The term "value" for these purposes is interpreted to mean the Total Net Benefit Value.

DOE Guidelines for Preparation and Review

The Contracting Officer is responsible for determining if the Total Net Benefit Value falls within the acceptable range of no more than 5% above the mean average for the comparator group. Such determination shall take into account whether or not all DOE guidelines for preparation and review have been followed in the development of the Total Net Benefit Value.

If the Total Net Benefit Value does not fall into the acceptable range (i.e., it is more than 5% above the mean average for the comparator group), the Contracting Officer will be responsible for monitoring a corrective action plan by the contractor.

Definition and Acceptable Value

Areas of Concern
The DOE is not concerned with the Net Benefit Value of individual benefits as long as the Total Net Benefit Value for all benefits falls within the acceptable range.

Determination of Total Net Benefit Value

General Background Information

Total Net Benefit Value is the sum of the Net Benefit Value for all employer sponsored benefits.

DOE Requirements under DOE O 350.1

None

DOE Guidelines for Preparation and Review

If it is not clear from the report that each benefit is assigned a dollar value and that the Total Net Benefit Value is the sum of the Net Benefit Value on a dollar basis of all benefits, then further investigation should be made to determine if the methodology utilized to develop the results is reasonable.

Determination of Total Net Benefit Value

Illustrations

During the typical Value Study process, each benefit is scaled to its value in dollars, and is divided into employer-provided and employee-paid components. A simple example best explains how these components are calculated for one benefit provided by employer "A".

Facts:

* Employer A has a benefit that is worth twice as much (based solely on design) as the sponsoring employer's benefit
* The sponsoring employer's benefit value is $1,000 per employee
* Employer A has employees contribute $800 annually

Value Study Calculations:

* The employer plus employee value of Employer A's plan is $2,000 (=2 * $1,000) regardless of the actual cost of the benefit
* The employee-paid value is $800 based on actual contributions
* The employer-provided value is $1,200 (=$2,000 - $800) regardless of the actual amount Employer A is paying

The Total Net Benefit Value is then calculated by summing the Net Benefit Value for all employer sponsored benefits. As a final step in the Value Study, the contractors Total Net Benefit Value is compared to the average Total Net Benefit Value for the comparator group.

Areas of Concern

None

General Background Information

The Value Study report prepared by the consultant serves as a mechanism to convey key information regarding the preparation and results of the Value Study.

DOE Requirements under DOE O 350.1

None

DOE Guidelines for Preparation and Review

The following guidance was previously provided to the Heads of Contracting Activity, operations staff, and contractors in the implementation of Chapter V Value Study methodology outlined in the chapter.

Value Study Methodology Recommendations:

* A complete copy of the Value Study <shall> include the methodology used to define each benefit plan, a description of the benefits plans, a list of survey respondents, and the actuarial assumptions.

The following additional clarification is provided to further identify information which should be included in the final report.

* The report should also include a description of the valuation methodology in accordance with the guidelines presented in Part III.3. Valuation Methodology, Part III.4. Informal Programs (if applicable), and the calculation of Total Net Benefit Value as presented in Part III.5. Net Benefit Value

* The report should be accompanied by a contractor certification and an actuarial certification as illustrated in Appendix A and Appendix B, respectively.

Areas of Concern
It is not possible to ensure that results of the Value Study are valid without receipt of all elements designated in these guidelines. In addition, it is impossible to verify that the results of any subsequent Value Study have been calculated consistently if full documentation of all critical actuarial assumptions, and the valuation methodology is not included in the report.

Elements to be Reviewed and Requests for Supplemental Information

General Background Information

Because it is impossible to control all of the variables which impact a Value Study, it is important that a thorough review of the preparation, documentation and results presented in the report be under taken.

DOE Requirements under DOE O 350.1

None

DOE Guidelines for Preparation and Review

Appendix C contains a checklist of all elements which should be reviewed by the Contracting Officer. If the report is incomplete in any way, the additional information should be requested. The initial request will be delivered to the contractor, who may authorize direct contact with the consultant to expedite the request.

Areas of Concern

The DOE's need for thorough documentation may exceed the standard documentation of the consultant preparing the study. However, it is the DOE's position that if the consultant's documentation does not meet DOE guidelines, the cost of the study will not be considered a reimbursable expense and the results will be considered invalid. Therefore, it is incumbent upon the consultant to modify their standard documentation if necessary to DOE guidelines, regardless of whether or not it increases the cost of the study. We do not believe the DOE requirements will cause the need for more than a brief supplement, if any, to comply fully.

Appendix A

Sample Contractor Certification

Enclosed is a Value Study performed in compliance with DOE O 350.1. I hereby certify the following statements are true to the best of my knowledge:

- A list of the Value Study participants was submitted and approved by the DOE Contracting Officer prior to the performance of the study.

- All known major non-statutory benefit plans of <*Insert Contractor Name*> and the study participants have been valued, including qualified defined benefit, defined contribution retirement and capital accumulation plans, death, disability, health and paid time-off welfare benefit programs. All plans were valued based on current plan provisions applicable to exempt professional level staff (non-executives). Post-retirement benefits (other than pensions) <*were/were not*> included in the study.

- <*Pick applicable statements*> All study participants compete for exempt level professional staff (non-executives) in the same industry as <*Insert Contractor Name*>. As an alternative, a study participant has been included with proof that we have gained or lost more than 4 exempt level professional staff (non-executives) within the last 5 years from/to such participant who have same skills sets as professional staff of <*Insert Participant Name*>

- No more than 20 percent of the study participants (excluding <*Insert Contractor Name*>) are DOE Contractors.

- <*Include all applicable statements. If statement does not apply, indicate what change has occurred and why. If this is the first such study, omit this item.*> No change in the participant group, national consulting group performing the study, plans valued, or valuation methodology and assumptions has occurred since the last Value Study submitted to the DOE in accordance with DOE O 350.1.

- No request of any kind has been made of <*Insert Name of National Consulting Group*> to modify the approved study participants, data provided by study participants, their standard valuation methodology or the valuation assumptions in any manner which is not required to conform with the principles set forth in DOE O 350.1., and which jeopardizes their professional independence or is intended to significantly impact a determination of compliance with the measures provided in DOE O 350.1.

Certified this <*day*> day of <*month*>, <*year*> by:

_____

Name and Title

Appendix B

Sample Actuarial Certification

<*Insert Name of National Consulting Group*> has performed a Value Study for <*Insert Contractor Name*> in accordance with our understanding of DOE O 350.1. Such study was performed for the benefits in effect for the plan year beginning <*Insert First Day of Plan Year*>. I hereby certify the following statements are true to the best of my knowledge:

- We are a national consulting group with <*Insert Number*> offices nationwide and in excess of $5,000,000 revenue annually. We have the actuarial expertise necessary to perform the study as required.

- The benefits valued are those available to exempt level professional staff (non-executives) of the study participants.

- We have exercised prudent measures to validate participant data as accurately reflecting the participants plans as of the January 1 coincident with or immediately preceding (if the evaluation year is other than a calendar year) the first day of <*Insert Contractor Name*> evaluation year. To the extent employees of <*Insert Contractor Name*> as of January 1 may be entitled to grandfathered benefits based on date of hire (or other variable), our calculations are based on the weighted average enrollment in each of the plans as of this date.

- The valuation assumptions and methodology utilized produce a reasonable projection of the value provided by the participant's benefit plans. The method of valuing retirement benefits provided under a defined benefit or other post-retirement benefit cost is consistent with the methodology used to determine the service cost component of the Net Periodic Benefit Cost under the Projected Unit Credit Method

- We have not been requested to modify the approved study participants, data provided by the participants, our standard valuation methodology or valuation assumptions in any manner which is not required to conform with the principles set forth in DOE O 350.1., and which jeopardizes our professional independence or is intended to significantly impact a determination of compliance with the measures provided in DOE O 350.1.

- We have reviewed the demographics and enrollment patterns for <*Insert Contractor Name*> and have performed such tests as necessary to determine that they do not vary from our standard assumptions in a manner which will cause the total net benefit value calculated for <*Insert Contractor Name*> expressed as a percentage of the peer group average to vary by more than one percentage point (i.e., if our standard assumptions develop a total net benefit value of 1.10, the values calculated using actual demographics and enrollment patterns would fall in a range of 1.09 to 1.11).

- Benefits valued include all known qualified defined benefit, defined contribution retirement and capital accumulation plans, death, disability, health and paid time off welfare benefit programs. The anticipated net benefit value of any benefit not valued in our study is less than 1% of the total net benefit value. Post-retirement benefits (other than pensions) *<were not included in the study/were included in the study and the value was calculated on a basis consistent with the methodology for calculating the Service Cost component of the Net Periodic Post-Retirement Benefit Cost under FAS 106>*.

- No significant benefit data was missing for <*Insert Contractor Name*>. For other participants, no significant benefit data was missing, or if it was, we have disclosed in our report what assumption we used to complete the data and the rationale for doing so. If we did not have sufficient data to assign a value to the missing data, an assumption was made that the participants benefit for the missing data had a net benefit value of $0.

- The total net benefit value for <*Insert Contractor Name*> was calculated as (or is equivalent to) the sum of the net benefit values for each benefit provided by the contractor, divided by the arithmetic mean (average) of the sum of the net benefit values for each benefit provided for all other participants.

- *<Insert statement as to the treatment of "excess flex credits" and its impact on the study results. For this purpose, define "excess flex credits" as credits granted in excess of those needed to purchase the assumed level of benefits selected. Also insert a statement as to the treatment of "waiver credits".>*

- *<Include all applicable statements. If a statement does not apply, indicate what change has occurred and why. If this is the first study under DOE O 350.1 omit this item.>* No change in participant group, plans valued, or valuation methodology and assumptions has occurred since the last Value Study submitted in accordance with DOE O 350.1.

Certified this <*day*> day of <*month*>, <*year*> by:

_____

Name and Title

List all appropriate actuarial designations of signatory:

_____

_____

_____

_____

Appendix C

Value Study Checklist
Field Office Review

Initial and date each item reviewed. Attach a statement describing any variance from DOE guidelines.

Contractor:_____
Plan Year Reviewed:_____

_____ Prior Approval of comparator group documented.

_____ Contractor Certification received and reviewed for consistency with sample language.

_____ Actuarial Certification received and reviewed for consistency with sample language.

_____ Comparator Group Selection meets DOE guidelines

- _____ 15 or more participants for exempt level professional staff (non-executives).
- _____ Contractor supplied documentation that all participants compete in same industry as contractor or require same skill sets as professional staff of contractor.
- _____ No more than 20 percent of participants (excluding contractor) are DOE contractors.

_____ Report meets DOE guidelines

- _____ Includes definition of each benefit plan.
- _____ Includes description of each benefit plan.
- _____ Includes a list of survey respondents.
- _____ Includes description of valuation methodology.
- _____ Includes description of actuarial assumptions.
- _____ Appropriately deals with informal programs.

_____ Results show Acceptable Value for Total Net Benefit Value. (i.e., no more than 5% above participant group average)

_____ Copy of results sent to DOE Headquarters.

CODE OF PROFESSIONAL CONDUCT*

Preamble

The Precepts of this Code of Professional Conduct identify the professional and ethical standards with which an actuary must comply. The Annotations provide additional explanatory, educational and advisory material to members of the actuarial profession on how the Precepts are to be interpreted and applied. An actuary must be familiar with, and keep current with revisions to, the Code of Professional Conduct, its Precepts and Annotations.

Professional Integrity

PRECEPT 1. An actuary shall act honestly, with integrity, and in a manner to uphold the reputation of the actuarial profession and to fulfill the profession's responsibility to the public.

ANNOTATION 1-1. An actuary fulfills the profession's responsibility to the public through compliance with this Code, and by offering actuarial advice, recommendations and opinions that are the product of the actuary's exercise of professional judgment.

ANNOTATION 1-2. An actuary who pleads guilty to or is found guilty of any misdemeanor related to financial matters or any felony shall be presumed to have contravened Precept 1 of this Code, and shall be subject to the profession's counseling and discipline procedures.

ANNOTATION 1-3. An actuary shall not use a relationship with a third party to attempt to obtain illegal or materially improper treatment from such third party on behalf of a principal (i.e., present or prospective client or employer).

PRECEPT 2. An actuary shall perform professional services with integrity, skill and care.

ANNOTATION 2-1. "Professional services" refers to the rendering of advice, recommendations or opinions based upon actuarial considerations, and also includes other services provided to a principal (i.e., present or prospective client or employer) by one acting as an actuary.

Qualification Standards

PRECEPT 3. An actuary shall perform professional services only when the actuary is qualified to do so and meets applicable qualification standards.

*The Code of Professional Conduct was approved by the Board of Governors of the Society of Actuaries on May 18, 1993.

ANNOTATION 3-1. It is the professional responsibility of the actuary to observe applicable qualification standards in the jurisdiction in which the actuary renders professional services, and to keep current regarding changes in these standards. For example, for practice in the United States, the Qualification Standards promulgated by the American Academy of Actuaries apply; for practice in Canada, the eligibility conditions promulgated by the Canadian Institute of Actuaries as set out in the Canadian Institute of Actuaries bylaws apply.

Standards of Practice

PRECEPT 4. An actuary shall ensure that professional services performed by or under the direction of the actuary meet applicable standards of practice.

ANNOTATION 4-1. It is the professional responsibility of the actuary to observe applicable standards of practice in the jurisdiction in which the actuary renders professional services, and to keep current regarding changes in these standards. For example, for practice in the United States, the Standards of Practice promulgated by the Actuarial Standards Board apply; for practice in Canada, the Standards of Practice promulgated by the Canadian Institute of Actuaries apply.

ANNOTATION 4-2. Where there is a question regarding the applicability of a standard of practice, the professional judgment of the actuary, taking into account the applicable accepted principles of actuarial practice, shall prevail.

Disclosure

PRECEPT 5. An actuary shall, in communicating professional findings, indicate clearly that the actuary is responsible for the findings.

ANNOTATION 5-1. An actuary who makes an actuarial communication should indicate clearly the extent to which the actuary or other source(s) are available to provide supplementary information and explanation.

ANNOTATION 5-2. An actuary who makes an actuarial communication assumes responsibility for it except to the extent the actuary disclaims responsibility by stating reliance on other sources. Reliance on other sources means making use of those sources without assuming responsibility therefor. A communication making use of any such reliance should define the extent of reliance. An actuary may rely upon other sources for information except where limited or prohibited by applicable standards of practice.

ANNOTATION 5-3. Any written communication of professional findings must be signed with the name of the actuary who is responsible for it. The name of an organization with which the actuary is affiliated may be incorporated into the signature but the actuary's responsibilities and those of the organization are not affected by the form of the signature.

PRECEPT 6. An actuary shall, in communicating professional findings, identify the principal(s) (i.e., the client(s) or employer(s)) for whom such findings are made and shall describe the capacity in which the actuary serves.

PRECEPT 7. An actuary shall make full and timely disclosure to a principal (i.e., present or prospective client or employer) of the sources of all direct and indirect compensation that the actuary or the actuary's firm may receive in relation to an assignment for which the actuary provides professional services for that principal.

ANNOTATION 7-1. An actuary who is not financially and organizationally independent concerning any matter related to the subject of an actuarial communication should disclose to the principal any pertinent relationship which is not apparent.

ANNOTATION 7-2. "Indirect compensation" is any material consideration received from any source in relation to an assignment for which the actuary provides professional services, other than direct remuneration for those services.

ANNOTATION 7-3. Actuaries employed by firms which operate in multiple sites are subject to the requirement of disclosure of sources of compensation which the actuary's firm may receive in relation to professional services with respect to a specific assignment for that principal, regardless of the location in which such compensation is received.

Conflict of Interest

PRECEPT 8. An actuary shall not perform professional services involving an actual or potential conflict of interest unless:

(a) The actuary's ability to act fairly is unimpaired; and

(b) There has been disclosure of the conflict to all known direct users whose interests would be affected by the conflict; and

(c) All such known direct users have expressly agreed to the performance of the services by the actuary.

services by the actuary.

ANNOTATION 8-1. A "direct user" of an actuary's services is a principal (i.e., present or prospective client or employer) having the opportunity to select the actuary and able to communicate directly with the actuary about qualifications, work and recommendations.

ANNOTATION 8-2. If the actuary is aware of any significant conflict between the interests of the direct user and the interests of another party relative to the actuary's work, the actuary should advise the direct user of the conflict. The actuary should also include appropriate qualifications or disclosures in any related actuarial communication.

Control of Work Product

PRECEPT 9. An actuary shall not perform professional services when the actuary has reason to believe that they may be used to mislead or to violate or evade the law.

ANNOTATION 9-1. Material prepared by an actuary may be used by another party in a way which may influence the actions of a third party. The actuary should recognize the risks of misquotation, misinterpretation or other misuse of such material and should take reasonable steps to ensure that the material is clear and presented fairly, and that the actuary is identified as responsible for the material as required by Precept 5 of this Code.

Confidentiality

PRECEPT 10. An actuary shall not disclose to another party any confidential information obtained through professional services performed for a principal (i.e., client or employer) unless authorized to do so by the client or employer or required to do so by law.

ANNOTATION 10-1. "Confidential information" refers to information not in the public domain of which the actuary becomes aware in conjunction with the rendering of professional services to a principal. It may include information of a proprietary nature, information which is legally restricted from circulation or information which the actuary has reason to believe that the principal would not wish to be divulged.

Courtesy and Cooperation

PRECEPT 11. An actuary shall perform professional services with courtesy and shall cooperate with others in the principal's (i.e., client's or employer's) interest.

ANNOTATION 11-1. Differences of opinion among actuaries may arise, particularly in choices of assumptions and methods. Discussion of such differences, whether directly between actuaries or in observations made to a principal by one actuary on the work of another, should be conducted objectively and with courtesy.

ANNOTATION 11-2. An actuary in the course of an engagement or employment may encounter a situation such that the best interest of the principal would be served by the actuary's setting out an alternative opinion to one expressed by another actuary together with an explanation of the factors which lend support to the alternative opinion. Nothing in this Code should be construed as preventing the actuary from expressing such an alternative opinion to the principal.

ANNOTATION 11-3. A principal has an indisputable right to choose a professional advisor. An actuary may provide service to any principal who requests it even though such principal is being or has been served by another actuary in the same matter.

If an actuary is invited to advise a principal for whom the actuary knows or has reasonable grounds to believe that another actuary is already acting in a professional capacity with respect to the same matter or has recently so acted, it may be prudent to consult with the other actuary both to prepare adequately for the assignment and to make an informed judgment whether there are circumstances involving a potential violation of the Code which might affect acceptance of the assignment.

might affect acceptance of the assignment.

The prospective new or additional actuary should request the principal's consent to such consultation. When the principal has given consent, the original actuary may require reasonable compensation for the work required to assemble and transmit the relevant information such as pertinent data, work papers and documents. The actuary need not provide any items of a proprietary nature, such as computer programs.

Advertising

PRECEPT 12. An actuary shall not engage in any advertising or business solicitation activities with respect to professional services that the actuary knows or should know are false or misleading.

ANNOTATION 12-1. "Advertising" encompasses all communications by whatever medium, including oral communications, which may directly or indirectly influence any person or organization to decide whether there is a need for actuarial services or to select a specific person or firm to perform actuarial services.

Titles and Designations

PRECEPT 13. An actuary shall make use of membership titles and designations of an actuarial organization only in a manner that conforms to the practices authorized by that organization.

ANNOTATION 13-1. "Title" means any title conferred by an actuarial organization related to a specific position within that organization. "Designation" means a specific reference to membership status within an actuarial organization.

Collateral Obligations

PRECEPT 14. An actuary with knowledge of an apparent, unresolved material violation of this Code shall disclose such violation to the appropriate counseling and discipline body of the profession, except where the disclosure would divulge confidential information or be contrary to law.

ANNOTATION 14-1. A material violation of this Code is one which is important, has influence or effect, or affects the merits of a situation, as opposed to one which is trivial, does not affect an outcome, or is one merely of form.

ANNOTATION 14-2. Except when an actuary is prohibited by law or while the actuary is acting in an adversarial environment involving another actuary or actuaries, when the actuary becomes aware of an apparent material violation of this Code, the actuary is required to undertake promptly the following course of action:

(a) If appropriate, discuss the situation with the other actuary or actuaries and, if necessary, agree upon a course of action to ensure that the apparent violation is resolved;

(b) If (a) is not appropriate or is not successful, bring the apparent violation to the attention of the appropriate investigatory body. For example, for violations of this Code arising out of practice in the United States, the actuary should refer the matter to the Actuarial Board for Counseling and Discipline; for violations of this Code arising out of practice in Canada, the actuary should follow procedures established by the Canadian Institute of Actuaries; for violations of this Code arising out of practice in Mexico, the actuary should follow the procedures established by the Colegio Nacional de Actuarios.

PRECEPT 15. An actuary or the actuary's representative shall respond promptly in writing to any letter received from a person duly authorized by the appropriate counseling and disciplinary body of the profession to obtain information or assistance regarding possible violations of this Code.

PRECEPT 16. An actuary shall abide by this Code of Professional Conduct whenever providing professional services.

ANNOTATION 16-1. Laws and regulations may impose obligations upon the actuary. Where the requirements of law or regulation conflict with this Code, the requirements of law or regulation shall take precedence.

ANNOTATION 16-2. * For professional services rendered in Canada, the rules of the Canadian Institute of Actuaries apply. *ANNOTATION 16-3.* † For professional services rendered in Mexico, the rules of the Colegio Nacional de Actuarios apply.

*This annotation was approved by the Board of Governors of the Society of Actuaries on October 17, 1993.
†This annotation was approved by the Board of Governors of the Society of Actuaries on January 9, 1996.

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