

AMERICAN ACADEMY OF ACTUARIES

Council on Professionalism

PEER REVIEW

Concepts on Professionalism

Discussion Paper

*Prepared by*

Committee on Professional Responsibility

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# PREFACE

This discussion paper was developed by the Committee on Professional Responsibility of the American Academy of Actuaries for discretionary use by actuaries who are interested in establishing, maintaining or enhancing a system of peer review in their professional practice. It replaces an earlier paper of the same title published by a subcommittee of the Committee on Professional Responsibility in 1997.

Peer review is one of a number of processes that actuaries use to produce a high quality work product. This discussion paper provides a description of some common peer review practices to assist actuaries in considering various aspects of peer review and in determining whether voluntary peer review may be beneficial in their practice.

This paper was not promulgated by the Actuarial Standards Board and is not binding upon any actuary. No affirmative obligation to conduct peer review is intended to be imposed on any actuary, nor should such an obligation be inferred from any of the ideas expressed or suggestions made herein. This discussion paper is intended to stand on its own and be freely interpreted.

In considering the use of voluntary peer review, actuaries should be guided by the Code of Professional Conduct. To the extent any conflict exists or could be implied between this paper and the Code of Professional Conduct, the Code prevails. Members, reflecting upon the Code and other professional standards that apply to them, are free to accept or reject any part or the whole of this discussion paper as they choose.

Members are encouraged to share their comments on this paper with the Committee on Professional Responsibility to facilitate improvement in any future releases on this topic. Comments can be submitted to **paper@actuary.org**.

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*The Committee on Professional Responsibility presents these ideas with the expectation that they will be both useful and thought-provoking and will enhance the actuarial profession's consideration of voluntary peer review. Ultimately, it is the Code of Professional Conduct that governs the responsibilities of actuaries in this area. However, the ideas and suggestions offered in this paper are intended to assist actuaries in applying the Code of Professional Conduct to their individual situations. The Committee believes that expanded discussion of the concepts and suggestions offered in this paper will benefit the profession.*

## COMMITTEE ON PROFESSIONAL RESPONSIBILITY

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*Marc I. Whinston*

# BACKGROUND

The actuarial profession is achieving increasing visibility. Ongoing debates on pension and health care reform and recent problems in the insurance industry have focused more attention on actuaries and the work that they do. The profession is faced with a rapidly changing economic environment, increasing regulatory complexities, and more inquiries about various aspects of actuaries' work. One response by the profession to enhance the quality of professional services being provided by its members to their principals and publics was the establishment of professional standards of conduct, practice and qualification. It is expected that an actuary and an actuaries' work product will be measured or evaluated against the Code of Conduct (Code), Actuarial Standards of Practice (ASOPs), and Qualification Standards adopted by the profession. Actuaries can use a number of techniques to conform their conduct and work products to the standards established by the profession. Peer review is one of the techniques that can be used to enhance actuaries' collective and individual professionalism.

In 1997, a subcommittee of the Committee on Professional Responsibility (committee) of the American Academy of Actuaries (Academy) published a paper on peer review. That paper offered non-binding guidance to actuaries on various aspects of peer review, describing various types of peer review, explaining the benefits of peer review and suggesting how an actuary might establish or enhance a peer review program. Since that time, practice has evolved with respect to peer review and, within the Academy, with respect to the publication of discussion papers on professionalism topics, to the point where the committee determined that it would be appropriate to update the paper. This paper replaces the 1997 edition.

This paper is intended to be broadly shared among the membership of the Academy and its sister organizations. In preparing this discussion paper, the committee recognized that there is likely a wide range of experience and opinion within the profession concerning peer review, and that no single approach to peer review is likely to meet the needs of all practicing actuaries. However, the committee believes that actuaries working in all types and areas of professional practice can benefit from reading and considering the concepts and suggestions contained in this paper.

The result of a peer review process can be useful to actuaries in evaluating the quality of their work product and, depending on the circumstances, can be reassuring to the users of those work products as well. While actuaries are strongly encouraged to consider, when appropriate and applicable, peer review as a useful process which can help to enhance the quality of a work product, the U.S. actuarial profession does not require actuaries to specifically obtain peer review of their work products, and the Academy has no plans to establish a formal peer-review program. The committee is asserting only that actuaries have an obligation as prescribed in the Code, the ASOPs and the Qualification Standards to produce work of high quality and that a peer review process is one of a number of techniques to satisfy this obligation. The committee recognizes that peer review may not always be a process that can effectively be applied in all situations.

By sharing the thoughts of several experienced actuaries, the committee encourages each actuary to give appropriate consideration to the concepts and suggestions contained in this paper. Ultimately, however, each actuary must decide whether and how to incorporate a peer review process into his or her professional practice.

# DEFINITIONS AND EXAMPLES OF PEER REVIEW

Peer review may be defined as an evaluation of a professional work product (or one or more portions of a professional work product) conducted by a second, qualified professional who is considered a peer of the preparing actuary.

## *Examples of Peer Review*

Peer review can take many forms, including:

- Checking some or all of the computations underlying the work product;
- Evaluating the appropriateness of methodologies employed by the actuary who prepared the work product (the preparing actuary);
- Evaluating the selection of assumptions used by the preparing actuary in the underlying work product;
- Considering whether the preparing actuary complied appropriately with professional standards of conduct, practice and qualification;
- Determining whether the preparing actuary's findings and conclusions as set forth in the work product, including any expression of the preparing actuary's opinion, appear to be reasonable and well-supported;
- Considering whether the work product communicates the preparing actuary's findings and conclusions in a manner that is reasonably clear and complete, appears consistent with the level of understanding of the anticipated audience, and contains the appropriate disclosures and caveats.

A peer review process may include one or more of the above items or other similar procedures. All of these forms of peer review may be considered review of the preparing actuary's work product. In these reviews, a peer reviewer's concerns, if any, with the work product normally would be discussed with the preparing actuary, who would then determine whether and how to revise the work product to address the peer reviewer's observations.

Typically, then, as described above peer review is a process applied to an earlier draft of the final work product that is ultimately released by the preparing actuary to a user. The reviewing actuary's comments, if any, may or may not have caused the preparing actuary to make changes to the earlier draft work product before release. In addition, changes to the earlier draft may be made by the preparing actuary for reasons not related to the peer reviewer's comments. However, whether or not changes were made as a result of a peer review process, for other reasons, or not at all, it is usually reasonable to consider the final work product to have received some benefit from undergoing a peer review process. Given the preparing actuary's ultimate control over the final work product, the preparing actuary is normally expected to accept full responsibility under the Code, the ASOPs, and the Qualification Standards for a work product whether or not it has undergone a peer review process.

A broader approach to peer review might also include reviews of the preparing actuary's office procedures or business practices, for example:

- Reviewing the preparing actuary's work proposals to confirm whether the proposed assignments are defined with reasonable clarity and completeness, including appropriate disclosures and caveats;
- Reviewing the preparing actuary's business procedures, for example, file maintenance, documentation, work planning, and adherence to initially-established budgets and time frames;
- Evaluating the effectiveness of the preparing actuary's peer review program, if any.

This discussion paper focuses primarily on the types of peer review exemplified by the first set of bulleted items above, that is, the review of the preparing actuary's specific work product rather than a general review of office procedures or business practices.

### *Timing of Peer Review*

Peer review may take place prior to the release of the work product to its intended user(s), or subsequent to its release, or both. For example, a preparing actuary might arrange for peer review of an early draft actuarial report before finalizing it and submitting it to a client. This same report might also be included as part of a subsequent review of the preparing actuary's office procedures.

Pre-release peer review may also be conducted in steps, concurrent with the progress of the work product. For example, the preparing actuary might seek peer review of selected methods and assumptions, or checking of calculations as work progresses. A preparing actuary who utilized a step approach to peer review might also choose to involve a completed early draft work product in a final, complete peer review process before completing a final work product version for release to the user.

Both the step approach and complete early draft work product approach to peer review can create timing issues. Under the step approach, the time needed to complete the peer review of one step may cause a delay in proceeding with a subsequent step. Conversely, the finished early draft work product approach may result in a very short period at the end of the project for peer review to take place. Maintaining the product delivery schedule can be problematic if the peer review generates concerns which, in the preparing actuary's judgment, make it advisable to do a great deal of revision in producing the final work product prior to release to the user.

Ultimately, actuaries take differing approaches on making a decision whether or not to utilize a peer review process. This decision may be affected by scheduling issues, availability of a qualified peer reviewer within the time constraints imposed by work schedules, personal preferences, any peer review policies adopted by their companies, and consideration of factors such as those described later in this discussion paper. When a peer review process is not a viable option, another method more appropriate to the situation can often be applied to support a high quality work product. For example, reliance on methodologies established for earlier similar work products or the application of standards or check lists developed within a firm for work

products of the type being done may satisfy a need to confirm the high quality of a work product if peer review prior to the release of the work product is not feasible or practical.

Post-release peer review may be less commonly used by actuaries, but it can have benefits. Depending on the circumstances, it is sometimes possible for post release modifications in a work product to be communicated to the intended user(s) of the work product in time to be of value. In addition, feedback from post-release peer review may suggest ways that the preparing actuary could improve subsequent work products or business procedures, including any peer review process that the preparing actuary may have used in the past.

### ***Identifying the Peer Reviewer***

One question that can arise when peer review is contemplated is who will serve as the peer reviewer. In theory, one would normally look for three traits in a peer reviewer.

- Independence from the work product being reviewed, that is, someone not otherwise involved in the preparation of the work product and, therefore, in a position to offer an unbiased assessment, free of financial or other interest in the content of the work product.
- Expertise, that is, someone sufficiently proficient in the issues and areas addressed in the work product to offer a competent review.
- Independence from the preparing actuary, that is, someone who is neither a supervisor who might have too much influence over the development of the final work product nor a subordinate who might have too little.

As a practical matter, it is often difficult to find a peer reviewer with all three of the traits described above. Potentially, any co-worker of the preparing actuary might have some interest in the work product or a relationship with the preparing actuary that would make perfectly neutral review not possible. In addition, a large project in a very specialized field could require all of the actuaries expert in that field to participate in its preparation, making it necessary for one or more of the preparing actuaries to also serve as peer reviewer.

When selecting a peer reviewer, the preparing actuary may choose to consider how independent and skilled possible candidates are, striking an appropriate balance to attain the desired level and type of review that, in the preparing actuary's professional opinion, will provide useful support to the preparing actuary in completing the final work product version released to the user.

### ***Related Concepts***

Other forms of review, potentially valuable to preparing actuaries, probably fall outside the definition of "peer review" and would not, generally, be considered to be part of a peer review process. For example, informal discussions with colleagues while work is progressing may be valuable, but it would be difficult to consider them to be part of a formal peer review process. One reason for this is that "peer review" is usually a deliberate process in which all participating parties (including the preparing actuary and peer reviewers) acknowledge their roles and understand that they are part of a peer review process. In particular, peer reviewers are usually prudent to evaluate their qualifications to participate in a peer review process prior to any such

participation and preparing actuaries are usually prudent to evaluate a potential peer reviewer's independence before commencing the peer review.

Proof-reading, editorial, or even legal review have the potential to improve the quality of a preparing actuary's work product, but typically would not be considered peer review, in part because such review need not necessarily be performed by a "peer" of the preparing actuary. In addition, such review is, typically, not considered to be on subjects unique to actuarial work.

Similarly, teaching of actuarial concepts, training in office procedures, managerial oversight and general mentoring can be invaluable to actuaries, but are usually general enough that they would not normally be considered "peer review" as we have focused on it in this discussion paper. In addition, following work procedures or a work plan established by others or applying a check list so that a comprehensive approach is taken in a work project would not normally be considered "peer review." In addition to being general in nature, all of these utilize the knowledge or experience of others conveyed *before* work project is even begun. Peer review is a term reserved in this discussion paper for a review process applied to a specific work product or portion of a specific work product that has, to some extent, been completed in draft form at the time of the review.

The seeking of a second opinion, likewise, would not necessarily be the same as peer review. A second opinion for the purposes of this discussion paper is defined as a review, analysis, or report prepared by a second professional independently retained by a principal. Even though the second actuary may have been specifically engaged by the principal to review the work product of a first actuary, the characteristics of such an engagement are distinct enough that a different name, second opinion, be applied to it. A second opinion, even though it may provide similar assurances to a work product user, is distinct from a peer review because the second actuary is retained by the principal directly and is, therefore, known by the principal and has an direct obligation under the Code, ASOPs, and Qualification Standards to the principal for the quality of the work product provided.

Theoretically, a second opinion need not involve any discourse between the first and second actuary prior to the completion of the second opinion which is, typically, a formal document. Peer review processes would typically involve significant communication between the first and second actuary. In addition, a peer review is primarily done for the benefit of the preparing actuary as a method to assess the quality of the preparing actuary's work product. By contrast, a second opinion is rarely initiated primarily to benefit the first preparing actuary, although the first preparing actuary may benefit from the second opinion.



# PEER REVIEW AND THE CODE OF PROFESSIONAL CONDUCT

The Code of Professional Conduct (Code) of the Academy does not require Academy members to obtain peer review of their work products. However, peer review can be one of a number of useful techniques a preparing actuary can use to address compliance with the Code. It is important to recognize that whether a peer review process or some other process is used, the preparing actuary bears full responsibility for his or her work product relative to compliance with the Code.

Annotation 1-1 to Precept 1 of the Code provides, "[a]n Actuary shall perform Actuarial Services with skill and care." By having a second qualified professional review a work product prior to its release to its intended user(s), a preparing actuary arguably may reduce the likelihood that significant errors or omissions in a final work product released to a user will be found, increasing the likelihood that the final work product will have been prepared with skill and care. Peer review does not substitute for skilled and careful work on the part of the preparing actuary, but it may be a tool considered by the preparing actuary to be part of the exercise of skill and care in completing a work assignment in compliance with this portion of the Code. It should be noted that peer reviewers will also be bound by this requirement and, therefore, are required by the Code to perform their peer reviews in compliance with Precept 1. Thus, it is usually important for peer reviewers to understand that they are part of a peer review process so that they recognize the need for such care and diligence.

Precept 4 of the Code states, "[a]n Actuary who issues an Actuarial Communication shall take appropriate steps to ensure that the Actuarial Communication is clear and appropriate to the circumstances and its intended audience and satisfies applicable standards of practice." As noted above, peer review can include consideration of whether standards of practice have been appropriately complied with and whether the work product appropriately communicates the preparing actuary's findings, conclusions, and opinions if any. Peer review can identify the use of technical jargon, identify unanswered questions and call the preparing actuary's attention to language in the work product that might be less clear to the intended user(s) than it was to the preparing actuary.

Annotation 8-1 to Precept 8 of the Code states, "[t]he Actuary . . . should therefore take reasonable steps to present the Communication clearly and fairly . . . ." As noted in the discussion of Precept 4 above, a peer review process can be used to enhance the clarity of a preparing actuary's final work product released to a user, because the peer reviewer may be able to identify to the preparing actuary statements in an early draft of the work product that appear to the peer reviewer to be ambiguous or reasonably subject to a different interpretation than the preparing actuary may have intended. Thus, a peer review process may increase the likelihood that the final work product released to the user will be less likely to be misinterpreted or misused by the intended user(s).

Annotation 10-1 to Precept 10 of the Code provides, "[d]ifferences of opinion among actuaries may arise, particularly in choices of assumptions and methods. Discussions of such differences between an Actuary and another actuary, or in observations made by an Actuary to a Principal on the work of another actuary, should be conducted objectively and with courtesy and respect."

Peer review may include discussions regarding the appropriateness of the assumptions and methods selected by the preparing actuary.

Discussions with the peer reviewer prior to the release of the work product may help the preparing actuary to:

- become accustomed to such discussions;
- prepare for such discussions when they are initiated by a third party;
- anticipate potential criticisms of the work product when it is being developed, and adjust for those potential criticisms as appropriate before release of the work product to the user; and
- respond more positively if the work product is challenged or criticized by a third party, handling the third party's observations in a courteous and professional manner.

Precept 13 of the Code deals with the responsibility of actuaries to resolve other actuaries' apparent material violations of the Code or, if such resolution does not occur, to report an apparent material violation of the Code to the appropriate counseling and discipline body of the profession (in the United States, the Actuarial Board for Counseling and Discipline (ABCD)). Peer review can offer an excellent opportunity for the preparing actuary and the peer reviewer to discuss differences of opinion regarding their respective compliance with the Code, and to resolve those differences without recourse to the ABCD. However, if such discussions are unsuccessful, the preparing actuary, peer reviewer or both may look to the ABCD as a means to resolve differences of opinion. Actuaries with questions about apparent, unresolved breaches of the Code that surface during the peer review process may wish to consult the ABCD for confidential counseling on how to resolve such breaches.

# CONSIDERATIONS IN ESTABLISHING A PEER REVIEW PROGRAM

Beyond the application of the Code, an actuary may choose to consider other factors before establishing a peer review program within an actuarial unit, consulting firm, or company. Some of these factors are discussed below.

## ***Costs of a Peer Review Program***

One potential drawback of peer review is that it can add to the cost of completing a work product. The additional cost typically includes the human resources utilized in the peer review process (which may have a direct out-of-pocket cost or an indirect opportunity cost to the preparing actuary or the user(s) of the work product). There can also be a second, less tangible cost associated with a peer review program. Peer review can delay the completion of a work product to varying extents, and the delay can have financial implications for the preparing actuary or the user(s) of the work product. Actuaries typically weigh the costs of peer review against its benefits in various situations.

## ***Availability of a Peer Reviewer***

An opportunity for peer review may not be readily available to all preparing actuaries. An actuary who is a sole practitioner within an organization faces an obvious hurdle in implementing a peer review process for evaluating work products prior to release in that organization. Similarly, a self-employed consulting actuary may not have ready access to peers who could review the consulting actuary's work products. Further, some work products may be based on specialized knowledge or may involve work in new, emerging areas of actuarial practice that a true "peer" who shares the specialized knowledge or involvement in the emerging area of practice of the preparing actuary may not be readily accessible to perform a review.

These potential problems do not necessarily prevent peer review. However, they will probably create a need to tailor the type of peer review that a preparing actuary seeks to the specific situation. For example, a sole practitioner or self employed actuary might seek peer review on techniques and methodologies typically employed in the actuary's area of practice, rather than more specific review of each work product. Sole practitioners or self employed actuaries working in the same area of practice may agree to peer review each other's work on some basis. For example, such actuaries engaged in rather narrow areas of practice may agree to peer review typical examples of each other's work product post-release as a means to enhance ongoing quality.

## ***Alternatives to Peer Review***

In the absence of ready access to a qualified peer reviewer other methods to support quality in a work product can be used. General discussions with colleagues, though not peer review *per se*, can provide valuable insights on concepts and methodologies commonly used by the preparing actuary that can be applied in specific assignments. Less directed input may not cover all aspects of a specific work product, but could address broader issues involving reasonableness of results and clarity of the preparing actuary's communications.

Alternatively, by keeping abreast of the latest developments in the actuary's area of practice as reported by other actuaries in professional publications, at professional meetings or in seminars, for example, the sole practitioner or self employed actuary may have confidence that the methodology used to complete a particular work product is reasonable and appropriate.

In addition, a sole practitioner or self employed actuary can review his or her own work product after a period of time has elapsed and, in a sense, become his or her own peer reviewer. That is, a fresh review of a work product by the preparing actuary after the reasons for the initial choices made and memories of intentions have faded may either confirm the quality of the original work product or indicate areas where it might be beneficial to consider changes in future similar work.

### ***Other Benefits of a Peer Review Program***

As described above, peer review can assist a preparing actuary to comply with the Code; this may be considered a potential benefit of a peer review program. However, peer review can have other benefits as well.

The general goal of peer review is usually to enhance the quality of the preparing actuary's final work product released to a user. A high quality work product can have long-term financial benefits, such as additional opportunities to provide professional services or increased compensation for future work products. Establishment of a peer review program may also reduce the preparing actuary's costs for professional liability insurance, because insurers may view a peer review program as having the potential to decrease material errors or omissions in the preparing actuary's final work product released to a user.

In addition, although preparing actuaries are expected to be qualified to undertake the projects they involve themselves in and peer reviewing actuaries are expected to be qualified for the peer review assignments they take on, involvement in either role will likely tend to either improve or solidify an actuary's knowledge and understanding of a particular area of practice. In this sense, participation in a peer review process may result in a sharing of knowledge and can be an educational opportunity.

Another potential benefit is that an actuary who has had prior experience in a peer review process can apply the tools and training acquired from that prior experience to enhance the quality of future work products. This prior experience can be acquired either because the actuary's work product had been the subject of prior peer review or because the actuary has had experience as a peer reviewer. Such experience can attune an actuary to methods or applications used in a work product or ways of presenting information in a work product that require special attention prior to finalization and release of the work product to a user.

### ***Determining the Appropriate Level of Peer Review***

The level of, and approach to, peer review taken by a preparing actuary may vary based on the complexity of the work product and the circumstances underlying the assignment. The preparing actuary may be confident in the quality of a work product because, for example, it is similar to other work products routinely produced by the actuary, or the work product is relatively straightforward. In this case the preparing actuary may seek a less comprehensive peer review or none at all. On the other hand, if the work product is particularly complex or non-routine and,

therefore, may not benefit from the prior experience of the preparing actuary applied in similar assignments, a more comprehensive and detailed peer review may be called for.

The preparing actuary might decide that a fairly routine analysis incorporated into a work product can be reviewed as it neared completion, but might seek earlier or more comprehensive review of a work product that involved a nontraditional assignment or an assignment in an area in which the preparing actuary had not had much prior experience. Such a peer review might involve seeking feedback on selected methodologies before moving deeply into the assignment or periodic feedback as parts of the assignment were completed.

The preparing actuary might also choose to consider the financial implications of the work product for its intended user(s). For a work product with relatively minor financial implications, less peer review might be requested than for a work product with major financial implications for the intended user(s).

### ***Reconciling Differences of Opinion***

In some instances, a preparing actuary and a peer reviewer may not agree on particular points, and may be unable to resolve their differences. As discussed above, if the difference of opinion appears to involve a material breach of the Code, either or both of the preparing actuary and the peer reviewer may seek recourse to the ABCD if they are unable to reach a satisfactory resolution. However, in many instances differences of opinion may be mitigated if both the preparing actuary and the peer reviewer understand their respective responsibilities. Peer review is advisory and optional. Ultimately, it is the preparing actuary, and not the peer reviewer, who normally has primary responsibility for the work product and who determines whether and to what extent to take the peer reviewer's advice or comment into account. It may be easier for the preparing actuary and the peer reviewer to resolve differences of opinion if the preparing actuary avoids being defensive when the work product is criticized and if the peer reviewer acknowledges that the preparing actuary is primarily responsible for the work product.