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RECENT DEVELOPMENTS IN ASSESSING FUTURE ASBESTOS CLAIMS UNDER THE FAIR ACT

HEARING

BEFORE THE

COMMITTEE ON THE JUDICIARY
UNITED STATES SENATE

ONE HUNDRED NINTH CONGRESS

FIRST SESSION

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RECENT DEVELOPMENTS IN ASSESSING FUTURE ASBESTOS CLAIMS UNDER THE FAIR ACT

THURSDAY, NOVEMBER 17, 2005

UNITED STATES SENATE,
COMMITTEE ON THE JUDICIARY,
Washington, DC.

The Committee met, pursuant to notice, at 2:02 p.m., in room SD–226, Dirksen Senate Office Building, Hon. Arlen Specter, Chairman of the Committee, presiding.

Present: Senators Specter, Kyl, Cornyn, Coburn, Leahy, Feinstein, and Durbin.

OPENING STATEMENT OF HON. ARLEN SPECTER, A U.S. SENATOR FROM THE STATE OF PENNSYLVANIA

Chairman SPECTER. Good afternoon, ladies and gentlemen. The Judiciary Committee will now proceed with a hearing on Senate bill 852, asbestos reform. This is a major piece of legislation designed to reform asbestos litigation with the provision of a trust fund of $140 billion.

With some 80 companies having gone into bankruptcy and thousands of people having suffered from mesothelioma, a deadly disease, there has been a controversy as to the adequacy of the $140 billion and our hearing today is designed to address that issue head-on.

I have been informed that we have four stacked votes at 3:30, and we have a great deal of testimony to hear before that time. It is hard to reconvene the Senate after a series of votes, especially late in the afternoon, so I am going to limit my opening statement to about a minute and yield now to my distinguished ranking member, Senator Leahy.

STATEMENT OF HON. PATRICK J. LEAHY, A U.S. SENATOR FROM THE STATE OF VERMONT

Senator LEAHY. Well, Mr. Chairman, thank you for having this hearing. We have worked so hard on this bipartisan bill. We have had all kinds of projections. There is no absolute certainty on anything, except for one thing. In my consideration, the bill the Chairman has worked on and Judge Becker has done so much work on, and others, is a lot better than the situation we have today.

After hearing all kinds of claims of where we are on funds, I am glad that CBO is here and I am glad to hear their projections. I will put my full statement in the record, but I think having Dr.

Holtz-Eakin here gives us a chance to get a little bit away from the rhetoric and get more to the reality, and I appreciate that. And I appreciate what the Chairman has done. He has worked harder than any member of the U.S. Senate on this issue.

[The prepared statement of Senator Leahy appears as a submission for the record.]

Chairman SPECTER. A special note of appreciation to Judge Becker, who is with us today. We convened the so-called stakeholders in August of 2003 and worked about 2 years to hammer out many areas of agreement, with those meetings sometimes lasting several hours and consisting of 40, 50, 60 people. Judge Becker presided and did an extraordinary job in bringing the legislation to the point where it is today.

Our first witness is the distinguished Director of the Congressional Budget Office. He twice served on the President's Council of Economic Advisers. He has been on the faculties of Columbia and Princeton Universities. He has an extraordinary academic and professional background that he brings to this very important position.

That, too, is a very brief statement of your background, Dr. Holtz-Eakin. We appreciate what CBO has done and we look forward to your testimony.

STATEMENT OF DOUGLAS HOLTZ-EAKIN, DIRECTOR, CONGRESSIONAL BUDGET OFFICE, WASHINGTON, D.C.

Mr. HOLTZ-EAKIN. Well, thank you, Mr. Chairman, Senator Leahy and members of the Committee. CBO is pleased to have the opportunity to appear this afternoon on this important issue. We have a statement for the record of written testimony which we have submitted. Let me in the five minutes focus in on just a few areas.

CBO provided its estimate of S. 852 with two goals in mind. The first was to provide the necessary point estimates of the receipts and outlays that would appear in the Federal budget over the 10-year budget window, and then, because it really is the central issue, to indicate the rough performance of the asbestos fund over the next five decades.

Over that period, we project that there will be roughly $140 billion in revenues for the fund and the resolution fund would be presented with claims totaling somewhere between $120 billion and $150 billion. In addition, there would also be some financing and administrative costs. As the bill is written, it would terminate payment of new claims if the fund's resources did prove to be inadequate.

Now, a representative moderate cost scenario places the value of the claims at about $130 billion over the 50 years, near the middle of our projected range of 120 to 150. That representative cost scenario consists of about 100,000 pending and future claims for individuals with malignant conditions and almost 1.5 million claims for nonmalignant conditions.

It is important to stress that the estimate is subject to great uncertainty in the economic environment, in the behavior of claimants, in the sources of funding and in the administration of the fund itself. And for that reason, it is not possible to say with perfect precision whether it works or it doesn't work. Instead, it was

only our goal to provide rough guidance regarding whether the outlays and funding were in the same ball park.

Now, subsequent to our estimate, the Bates White consulting firm released its analysis of S. 852. It is a comprehensive, bottoms-up professional analysis of the underlying epidemiology and the financial performance of the fund. The results do, however, contain some striking differences from CBO's estimate and some others in the area.

In particular, as shown in the chart, the Bates White analysis shows far greater claims for those with malignancies and far fewer claims for those with non-malignancies. For example, if we look at the second chart, the claims for Level VIII, lung cancer with asbestosis, are about three times higher, which would add about $40 billion to the claims, as we estimated it.

The Level VII claims, lung cancer with pleural abnormalities, are about seven times higher. Level VI claims, other cancers, are about 12 times higher. These together would add about $140 billion to CBO's estimate of the claims. It is also true that with fewer non-malignancies, claims would be lower, but here the magnitudes are smaller. The lower claims reduce the cost by about $30 billion.

Now, by definition, these differences must derive from differences in exposure to asbestos, incidence of disease, eligibility for compensation, filing of claims for compensation and acceptance of those claims. We have had one meeting with the authors of the study and we have a limited understanding of the sources of the differences, and only with more understanding can we determine how it would affect the projected level of claims and the range of uncertainty.

In closing, I guess I would just like to stress that CBO's estimate and Bates White's estimate come from different approaches. Our estimate of the fund is based on analyses by a number of experts, who in turn relied on a combination of epidemiological data, historical performance of the tort system and bankruptcy trusts and projections of the incidence of disease. As a result, it is built on the large amount of evidence we have from the current system and current legal environment. The Bates White estimate looks to be a de novo projection of performance in an entirely new environment.

In principle, it would be desirable to reconcile these two and to be able to identify all the sources of differences. Both have their merits. An approach built on the existing system provides great guidance to the costs of compensating the same claimants in a new form. The other approach has the advantage of showing the incentives for different kinds of behavior in a new kind of system.

Both have their disadvantages. The approach taken by CBO, the tops-down assessment of the current system, doesn't perhaps fully capture all the incentives that one might imagine. But the alternative approach suffers from the disadvantage of having no evidence on which to base any empirical estimates. They are all based on the current environment.

We look forward to your questions and are happy to have the chance to be here today.

Chairman SPECTER. Dr. Holtz-Eakin, the projections by the so-called Bates study have Level VI and other cancers, which includes malignancies which are not caused by asbestos exposure. Can you

approximate the dollar figure that that category covers, which is not asbestos-related so it would not be covered by this bill?

Mr. HOLTZ-EAKIN. In our estimates, that is a number that is under $10 billion. It is in a range of $5 billion. The cost under Bates White would be tens of billions of dollars, something in the vicinity of 50.

Chairman SPECTER. The Bates study also includes the Level VII, lung cancer with pleural plaques, and these two disease levels compensate malignant conditions accompanied by pleural thickening of the lungs. Are those appropriate for categorization of exposure in the bill, as you understand the situation?

Mr. HOLTZ-EAKIN. Again, if I understand the question correctly, we have tried to understand the degree to which the underlying diseases would satisfy the weighted exposure criteria in the bill. Obviously, that requires to some extent how that would be administered and there are obvious questions about how the legislation would be administered, and then what assumptions were made in the Bates White study. I am just not sure at this point about how to cross-walk those two.

Chairman SPECTER. Well, the Bates study estimates that these category of claims—VI, other cancers such as colo-rectal, et cetera, and VII, lung cancer with pleural plaques—range in the $157 billion to as much as $235 billion level. Are those estimates, in your judgment, realistic?

Mr. HOLTZ-EAKIN. We thought the VIs and VIIs together would add about $140 billion to our estimate of the cost, and so we have those costing about $15 billion or so. That would move the estimate up to $150, $160 billion if you took those numbers at face value.

Chairman SPECTER. The Bates study includes in the eligible population architects, bus drivers, taxi drivers, manicurists, barbers, cooks as all being sufficiently exposed to satisfy the bill's exposure requirements. But those categories are really not covered by the bill at all, which covers only substantial occupational exposure.

Do you have a view as to the propriety of including those categories, where the bill is explicit on covering only occupational exposure?

Mr. HOLTZ-EAKIN. I don't have a view on propriety, but I do know that when we tried to find our estimate of what the bill intended to cover, our estimate was our best estimate of the actual legislation as written and it did not appear to cover those claims to that degree.

Chairman SPECTER. Well, by propriety I simply mean are they covered by the bill.

Mr. HOLTZ-EAKIN. Yes. We took our best estimate of what the bill intended to cover.

Chairman SPECTER. Well, are taxi drivers and manicurists subject to substantial occupational exposure, which is the requirement of the bill?

Mr. HOLTZ-EAKIN. As I have stressed, we have two different kinds of estimates here. We counted on the experts in the area and we did not build a bottoms-up, occupation-by-occupation, industry-by-industry estimate of coverage. We relied on the experts in the area and sort of took an assessment of the consensus in there, and

that consensus didn't cover nearly the claims that Bates White came up with.

Chairman SPECTER. Directly, how do you account for the chart which shows the studies of ASG and Peterson low and Peterson high and CBO being at such great variance with the rising columns exhibited by the chart now being disclosed? That is my last question, Mr. Holtz-Eakin, because we are going to adhere very closely to the time, since we will have those three votes at 3:30.

Mr. HOLTZ-EAKIN. I would love to be able to give you a precise answer to that. Obviously, we are very interested in that. To the extent that we understand it so far, there seem to be two different things going on. The first is a greater number of people estimated to be eligible for payments from the fund, and also out of those eligible a much greater claim rate and incentives to show up and file claims with the fund.

We are trying to sort that out, but it is clearly very different than what we had anticipated.

Chairman SPECTER. Senator Leahy.

Senator LEAHY. Thank you, Mr. Chairman.

These numbers, of course, are important because, as you can imagine, when we get into the debate beyond changing from a tort system or trial by jury system, the biggest part of the debate, of course, is going to be on numbers. For those who are supporting the legislation that the Chairman and I have written, their biggest concern—I mean, a lot of them are saying, OK, we will support it, but are we going to be able to stay within the numbers?

The projections that relate to claims expected to be filed for cancer from asbestos exposure have the highest awards and, of course, the most impact. The table you gave me recently breaks out the claims you expect to be filed. I notice that you expect fewer overall claims for the malignant disease categories. What I am thinking about is in 2003 you estimated about 141,000 cancer filings. Now, you expect just under 100,000, 99,000. Why that difference in that period of time in the projection?

Mr. HOLTZ-EAKIN. Our estimates have changed from the previous pieces of legislation basically for two reasons. The first is changes in the legislation itself, with changes in the awards classifications both in the amounts and who is eligible, and the passage of time which has affected the number of pending claims outstanding, which are an important aspect of the financial impacts.

About half of the claims arise in the first 10 years and that is largely due to the overhang of pending claims. So with the passage of time, we have updated both the filing of new claims in the tort system, and also the resolution of some claims. The numbers will differ as a result.

Senator LEAHY. Do you consider Dr. Bates's projection for cancer victims to be out of the mainstream?

Mr. HOLTZ-EAKIN. We were certainly surprised by the magnitudes, but I think it would be unfair to be dismissive just because of the numbers. I think I would like to understand the degree to which we can learn something from this study and use it in the same way that we have used the other experts' studies to provide guidance to the Committee and the Congress on the overall performance of the fund, taking advantage of everything we know

about the area. These are new. They certainly strike me as worth understanding, but we don't understand them well enough yet to really judge them.

Senator LEAHY. Does that mean CBO will be doing a reevaluation, or are these numbers we can go to the floor with?

Mr. HOLTZ-EAKIN. I can say that we always are careful to make sure that if there is new evidence that would cause us to change our estimate, we would do that. If we have made some mistake or provided poor guidance to Congress, we, of course, would change our estimate. I don't know that we are in that position yet. We don't understand these numbers and at the moment I don't have a plan of that sort.

Senator LEAHY. The reason I mention this, Doctor, is if—and the one thing you should never try to predict are Senate schedules.

Mr. HOLTZ-EAKIN. There are lots of things I don't want to predict.

Senator LEAHY. I would like to be able to predict the lottery numbers. But after 31 years here, I have given up trying to predict it. The one prediction I was able to safely make is when it was announced with great fanfare this year that the House and Senate would recess in early October, I knew that would never happen. Now, I am thinking that there is an outside chance we will get out of here by Christmas Eve, but I am doubting it.

But assuming they keep to their projections, sometime after the Alito debate we will have this bill on the floor. That certainly is what Senator Specter and I hope. If there is going to be a reevaluation, I would urge that you get it done between now and then because we will rely on CBO numbers.

Mr. HOLTZ-EAKIN. Well, we will certainly continue to work with the Committee and provide you what you need.

Senator LEAHY. That is basically what I mean—

Mr. HOLTZ-EAKIN. Sure.

Senator LEAHY [continuing]. Just as long as the door doesn't close as of today.

Mr. HOLTZ-EAKIN. The door is not closed, sir.

Senator LEAHY. Great. Thank you, Doctor. Thank you, Mr. Chairman.

Chairman SPECTER. Thank you very much, Senator Leahy.

Under the early bird rule, Senator Coburn.

Senator COBURN. I wonder if you all read the additional views of the other Senators on the Committee before you attempted to define the costs of this trust fund.

Mr. HOLTZ-EAKIN. We have attended many of the meetings at which—

Senator COBURN. That isn't what I asked you. I said did you read the additional views that were submitted by myself and Senators Grassley, Kyl and Cornyn.

Mr. HOLTZ-EAKIN. Yes, as we were doing the estimates.

Senator COBURN. Then you will be familiar with the concerns that were in there in terms of the anecdotal and case control, but lack of cohort studies associated with Level VIs and Level VIIs. Are you familiar with that?

Mr. HOLTZ-EAKIN. I am not intimately familiar, but the staff has studied this.

Senator COBURN. Is the assumption that you all made on Level VIs and Level VIIs the same as the assumptions that are made in the bill, disregarding what the other additional views were in terms of the medical criteria associated with Level VI and Level VII?

Mr. HOLTZ-EAKIN. I am not sure what the question is.

Senator COBURN. Well, the question is are the assumptions that you made on Level VI and Level VII based on the medical criteria in the bill, based on you see a certain number of people achieving that.

Mr. HOLTZ-EAKIN. Yes.

Senator COBURN. And you did not take into consideration any of the concerns that were raised by the other additional views of the Senators on this Committee with regard to the looseness of the medical criteria associated with that?

Mr. HOLTZ-EAKIN. Well, I don't think that is exactly how we put together the estimate. We certainly knew the concerns and they are one piece of the evidence that went into putting together our estimate, but we also went to the other studies in the area. We have met with the experts—

Senator COBURN. Well, they did the same thing. They looked at only the medical criteria and the testimony, rather than the additional views. The concern I have is the accuracy of the CBO. And Senator Leahy put it right; you have got a tough job. Nobody knows whether you are going to be right or wrong, but the real problem is going to be if you are real wrong, if you are very wrong. What will happen is the very people we are going to want to help are not going to get help because the money will be gone in three or 4 years.

Having read your study, I believe you ignored significantly the reality of the legal climate in this country that will connect other cancers and other diseases in both Level VI and Level VII. And without looking at the medical criteria and that incentive, I think you have underestimated by far, and so does Dr. Crapo and other experts who testified before the Committee, as to the motivation for securing the funding.

So my question to you is did you look only at the criteria in the bill and what was said in the bill and the assumptions that are made in the bill on Level VI and Level VII as you looked at the number of claimants that you projected would be claiming under these cases, because that is the real difference. I mean, there is not a big difference, other than Level VI and Level VII, between the two studies. So where is the difference? The difference has to be there.

Mr. HOLTZ-EAKIN. Certainly, that is a key difference, and I think the best way to answer the question is that when we do the estimates, we look at the new environment, as categorized by the legislation, in the economy and look at the incentives for people to file and the incentives for the administrator to accept or reject claims. I mean, that is all part of doing the estimate.

Now, obviously, we came down in a different place than did some other people, and that happens. I think we also tried to be very clear that there are places that we can't be sure about how things

will play out simply given the legislation. You know, will the Institute of Medicine conclude that there is no relation? We don't know.

Senator COBURN. For example, there is much more doubt on Level VI and Level VII than there is anywhere else in this bill. Would you agree with that?

Mr. HOLTZ-EAKIN. We tried to flag down certainties, as well. We tried to be honest about the fact that for 10 years we have to give numbers. Obviously, a 10-year estimate of this particular piece of legislation is not the answer to anyone's question. So we tried to give some guidance to roughly how the fund would play out.

But we tried, I thought, to be very, very clear about the uncertainties associated with doing it. And there is a list of those uncertainties and they are also in the estimate as we released it.

Senator COBURN. So you can explain the difference between you and the Bates study because you can—

Mr. HOLTZ-EAKIN. Not yet, not entirely, but we will.

Senator COBURN. Well, you came down with a completely different set of numbers than what they did on Level VI and Level VII, correct?

Mr. HOLTZ-EAKIN. We know that there are big differences in these claims. There is no doubt about that. What is the underlying source of the difference? Is it exposure, is it differences in estimates of eligibility, is it differences in filing rates, is it differences in acceptance of filed claims? I can't break it apart that well and that is something that would be desirable.

Senator COBURN. I think we are going to get to hear that today, aren't we, Mr. Chairman?

Chairman SPECTER. We are going to have a representative of the Bates study here, yes.

Senator COBURN. Thank you very much.

Chairman SPECTER. Thank you, Senator Coburn.

Senator Feinstein.

Senator FEINSTEIN. Thank you, Mr. Chairman. As one who has wanted to see a bill, I am really concerned by what has happened. And I feel kind of sorry for you because you are really in the hot seat. Obviously, because you are neutral, we go to you for an opinion.

I am looking at a chart and I am looking at this Level VI, where Bates's base estimate is 212,000 and the upper-bound estimate is 526,000. You are at 17,500. Now, that is an astronomical difference.

Then I am also looking at the additional occupations that the Bates study brings into this, and I think somehow we are going to have to come to some agreement to either clarify the various classifications here or clarify the occupations, because the swing—and I have got them all here—the swing between the different studies is just far too great. So I don't know how you are going to reconcile, and more importantly at this stage I don't know how we are going to reconcile it.

Do you have any thoughts on that?

Mr. HOLTZ-EAKIN. Well, certainly, I think a little more time with Mr. Bates and the folks who put together the study is the first order of business for us, at least. It is often the case that we have estimates that differ from other experts in the area. This one is

particularly dramatic, particularly in the Level VIs, but usually with the time to sit—people go at these things differently and so you have to first line up the methods and then piece by piece find out within those methods where the assumptions differ. That process, I think, is an important one and one that we are just not done with.

Senator FEINSTEIN. Are you doing that now?

Mr. HOLTZ-EAKIN. We have had one meeting.

Senator FEINSTEIN. Right.

Mr. HOLTZ-EAKIN. The studies came out recently. We have had one meeting.

Senator FEINSTEIN. How long do you think it will take?

Mr. HOLTZ-EAKIN. Some people hate to project schedules. I know the timetable in the Senate, though.

Senator FEINSTEIN. The reason I am asking is because the present schedule has this being the first bill up in the new year.

I think, Mr. Chairman, if this isn't known before the new year so that we have an ample opportunity to understand and go over it, I don't know how we can consider this bill on the floor in January. I mean, the differences are stark between Navigant, between Manville, between others that have done the studies. I think Senator Coburn has sort of hinted to this all along that there was a problem. We have to know where there is or is not with some definition before we vote on the floor. At least that is my very strong view.

Chairman SPECTER. Well, Senator Feinstein, that is precisely what we are going to find out. You have very, very broad variances here to respond to your inquiry. CBO projects between 8,000 and 27,000 under Level VI and 10,000 to 32,000 under Level VII. Bates White projects over 350,000 claimants, 212,000 for cancers and 198,000 for lung cancers with pleural plaques.

That is what Dr. Holtz-Eakin is going to study further to show that his estimates are more reliable. We are working on that currently and I think we have time between now and the end of January when we come back into session. We have the better part of 2 months to get that job done.

Senator FEINSTEIN. I hope so. Thank you.

Chairman SPECTER. Thank you, Senator Feinstein.

Senator Cornyn.

Senator CORNYN. Thank you, Mr. Chairman.

Dr. Holtz-Eakin, thank you for being here and for your service to the Congress and to this Committee in a very difficult job. I just want to make clear as much as I can that your estimate depends on the validity of certain assumptions in terms of how many claims would be made and what the mixture of those claims will be. Is that correct, sir?

Mr. HOLTZ-EAKIN. Absolutely.

Senator CORNYN. And you project, as you said, between $120 and $150 billion over 50 years, and I want to talk to you about the limitations that you have stated in the report because I think it is important for us to understand. As I understand it, the Bates and White study has, using different assumptions, said that the trust fund would have to pay out anywhere between $300 billion and

$695 billion. So that dramatically demonstrates how important the validity of those assumptions are.

Just in fairness to you and so it is accurately portrayed here, your report says these estimates, the CBO estimates, must be viewed with considerable caution. The reports says there might be a significant risk of under-estimating the number of future asbestos claims. That is, I think, what causes all of us heartburn in trying to figure out exactly what we are doing here.

Let me just read one other paragraph. Your report says, "A more precise forecast of the fund's performance over the next five decades is not possible because there is little basis for predicting the volume of claims, the number that would be approved, or the pace of such approvals. Epidemiological studies of the incidence of future asbestos-related disease and the claims approval experience of private trust funds set up by bankrupt firms can be used to indicate the range of experience of the Federal asbestos trust fund, but those sources cannot reliably indicate the financial status of the fund over such a long period of time."

Did I accurately state the limitations that you have included in your CBO estimate?

Mr. HOLTZ-EAKIN. Certainly. We have tried to caution all along the difficulty of both translating what we know into a five-decade future and where it is not just the length, but the timing within that matters a great deal. The revenues come in fairly steadily. It is our anticipation that claims will come in much more front-loaded.

The administrator will have to use the authority to borrow to pay those claims, and as a result the debt service costs are an important part of the financial performance of the fund. So it is not just the levels; it is when they show up that matters, and that is difficult.

It is also the case that this is a different environment than the existing tort system and private trusts. It is meant to be. That is the purpose of the legislation, but it does mean we have no experience in that new environment; no one does. So any conjecture about behavior in that environment is just that, conjecture, and we have to be able to identity the important pieces of that.

Senator CORNYN. Thank you for that. It is important for everyone to understand. It seems to me that there are three different methodologies for predicting future claims which, as you said, is conjecture. One is claims already filed in court in the past, obviously; No. 2, past claims experience with existing trusts; and, three, epidemiological estimates of people who will experience asbestos-related disease.

It seems to me apparent that the CBO relied on some combination of the first two; that is, claims already filed in court in the past and past claims experience of existing trusts, while Bates and White relied on the third; that is, epidemiological estimates of people who experience asbestos-related disease.

Can you comment on the merits of one methodology over the other?

Mr. HOLTZ-EAKIN. We are not epidemiologists and won't pretend to be, but there is a far cry between a projection of cancers and payments out of the fund, as laid out in the legislation. You would

have to provide a link between the cancer and exposure to asbestos, and satisfying the weighted exposure requirements. Incidence of disease does not automatically match up with a claim. There has to be the decision to file a claim. The administration of the fund has to approve the claim, and the pace at which that is done is also, as I mentioned, important.

So it is not obvious that the finest epidemiology, even given the uncertainties there, translates into the best financial forecast. There are a lot of steps in between and I would say knowledge on all three fronts is preferable.

Senator CORNYN. Mr. Chairman, I would ask unanimous consent to include in the record a letter from the Statistical Assessment Service, an affiliate of George Mason University, which, as you know, has also reviewed the Bates and White study, as well as a copy of their report for the record.

Chairman SPECTER. Without objection, they will be made part of the record.

Senator CORNYN. Thank you.

Chairman SPECTER. Senator Kyl.

Senator KYL. Thank you, Mr. Chairman.

Obviously, we are trying to move forward here with a solution, but as you pointed out, Mr. Holtz-Eakin, the estimates are critical to putting together a bill and yet they are very difficult to make, and variations depend significantly upon the assumptions that are made.

Is it also the case that the assumptions change based upon the point in time at which they are made? For example, when the bill was first put together a couple of years ago, the assumptions would be necessarily different than they would be today and those assumptions would be necessarily different than, say, 6 months ago on things such as what has transpired in the meantime, such as the number of claims. I have been told, for example, that roughly $11 billion has been paid out since the beginning of this process.

Could you speak to that phenomenon, as well, since you have already spoken to the other part of the assumption phenomenon, but just the passage of time and how that necessarily changes our assumptions as well?

Mr. HOLTZ-EAKIN. The passage of time does matter. It matters for the economic environment. I don't think that is central to our estimates, but interest rates are a part of this calculation and those projections will matter, especially over the first 10 years. The overhang of pending claims is certainly an important part of the financial performance of the fund.

The magnitude will change with time as new claims are filed and are resolved in the tort system in one way or another. Our estimate assumes that things march on the timetable laid out in the legislation; that those individuals who have been severely harmed will be paid quickly, as the bill intends. The degree to which all of that transpires exactly on schedule affects the performance greatly and those are all important considerations.

Senator KYL. I am sure you haven't done this, but, for example, it would be interesting to try to determine whether, had this been in effect when the bill was first passed out of the Judiciary Committee, the result would be the same as it is today, and then try

to project from that something out to, let's say, six or 8 months from now, or whether, in fact, we would have been surprised by some of the developments.

Do you have any sense at all—have you looked at it in that refined a way yet?

Mr. HOLTZ-EAKIN. No, we haven't.

Senator KYL. Obviously, we are going to be relying a great deal on you. The variations that Senator Feinstein pointed out are simply so great here that we have got to come to grips with this. Since the whole concept of the trust fund is a rough justice kind of concept where you are making a lot of guesses and you know that going in, those guesses have got to be as accurate as possible. And so we will have to rely upon the expertise of groups like yours to help us understand all of the different elements that go into these estimates and whether or not they remain true over time.

I know what I am concerned about is that even a study done two or 3 months ago discussed today may well not apply to the circumstances we face next March or April or May, and I don't know for sure how we build that into what we are talking about either. Any comment, or you, too?

Mr. HOLTZ-EAKIN. I think the heart of it, as has been mentioned, is the Level VIs, and I can say that certainly when the study was released and we became aware of it, it caught our attention. We have worked with this Committee, in particular, for many years and tried to produce high-quality estimates of previous pieces of legislation. So, obviously, it caught our attention.

It is important to answer questions we don't know the answer to right now. Are the differences due to a different estimate of the number of bodies who are eligible, not just exposed, but eligible under the criteria in the bill for compensation, or are there differences in the same number of bodies being eligible but very different behavior on the part of claimants to file claims and/or the administrator to accept claims, or is it a combination? I think those are the central things to resolve.

Senator KYL. I appreciate it very much. Thank you. Thank you, Mr. Chairman. This is an important hearing.

Chairman SPECTER. Thank you very much, Senator Kyl.

Dr. Holtz-Eakin, we would appreciate it if you would stay with us while we hear the next panel because there may well be some issues raised which we will want your comments upon.

In light of the questions raised, I think it fair to make a couple of comments before we turn to the second panel, and that is that recognizing the difficulties of any estimate, we have provided for that contingency in the bill by reverting to the tort system, by going back to court. Where the insurers and the manufacturers have agreed to put up $140 billion, they realize that may not be their total exposure. Some have estimated the exposure as high as $500 billion, $1 trillion, if we do not find a way for asbestos reform. There are also sunset provisions which have a detailing on how we change medical criteria and how we change a variety of standards.

So you are not indispensable here, Dr. Holtz-Eakin. I just want you to know that if you are wrong—and anybody can be wrong and this is a best-estimate proposition, but you have great credibility in CBO. But we have fail-sale provisions.

I would like to turn now to panel two.

Senator FEINSTEIN. Can I ask one quick question?

Chairman SPECTER. Are you sure it is quick, Senator Feinstein?

Senator FEINSTEIN. It is.

Chairman SPECTER. OK.

Senator FEINSTEIN. Part of the bill says "employment in an industry, in an occupation, where for a substantial portion of a normal work year for that occupation the claimant," and then there are a list of criteria, "must have handled raw asbestos fibers, must have fabricated asbestos-containing products, so that the claimant in the fabrication process was exposed to raw asbestos fibers; must have altered, repaired or otherwise worked with an asbestos-containing product," et cetera, et cetera.

So you apply all of these, do you, when you are going to look at what this other evaluation has brought in to see if they apply these things?

Mr. HOLTZ-EAKIN. One of the things we are interested in learning more about is how those criteria are applied in the other estimates.

Senator FEINSTEIN. But you have applied them in your estimates?

Mr. HOLTZ-EAKIN. We have done our very best to price the bill as it stands.

Senator FEINSTEIN. Thank you. Thank you, Mr. Chairman.

Chairman SPECTER. Thank you, Senator Feinstein.

Thank you, Dr. Holtz-Eakin.

[The prepared statement of Mr. Holtz-Eakin appears as a submission for the record.]

Chairman SPECTER. We now turn to Dr. Bates, Dr. Welch, Dr. Peterson, Mr. Lederer and Dr. Martin.

Our first witness is Dr. Charles Bates, President and Senior Partner at Bates White, a national consulting firm dealing with economic analysis. Dr. Bates had served as Vice President of A.T. Kearney. He began his career on the faculty of Johns Hopkins University in the Economics Department. He holds a bachelor's degree in economics from the University of California and a master's and doctorate from the University of Rochester.

Welcome, Dr. Bates. We look forward to your testimony.

STATEMENT OF CHARLES E. BATES, PRESIDENT AND SENIOR PARTNER, BATES WHITE, LLC, WASHINGTON, D.C.

Mr. BATES. Good afternoon, Mr. Chairman and members of the Committee. Given the time constraints, I am going to abbreviate my planned oral comments, cut them approximately in half, but will submit the entire written portion for the record.

Chairman SPECTER. Your full statement will be made a part of the record, as will all statements.

Mr. BATES. We conclude that the proposed trust fund is underfunded. The reason is that the FAIR Act establishes an entitlement for compensation to large numbers of lung and other cancer patients who currently do not have valid tort claims. Whereas lung claimants face the prospect of jury trials where they need to establish asbestos as the likely cause of their cancer, the FAIR Act replaces this with a contributing factor standard of proof. The tort re-

quirement is much harder to establish because although asbestos contributes to the risk of lung cancer, it is rarely the principal cause.

The FAIR Act proposes to compensate pending and future claimants who fall into one of the specified disease categories. There is relatively little controversy about the number of claims for mesothelioma, lung cancer with asbestos, and impaired non-malignant disease. This is because most of these claimants already have incentives to file in the tort environment, and hence extrapolating from the historical filing behavior as CBO has done is fairly accurate.

However, our estimate differs from the CBO estimate for the two remaining disease categories—Level VII, lung cancers with pleural markers, and Level VI, other cancers. These two disease categories pose the greatest threat to the fund's financial viability.

Historically, claims corresponding to Level VII, lung cancer, and Level VI, other cancer categories, are rarely compensated in the tort environment. The tort environment requires claimants to show that asbestos was the cause of their disease. These cases are hard to win, since lung and other cancers lack the strong link to asbestos that mesothelioma has. If someone has mesothelioma, it was most likely caused by asbestos exposure. In contrast, if someone has lung cancer, it was most likely caused by smoking.

The FAIR Act weakens the tort criteria. It only requires claimants to show that asbestos was a significant contributing factor. Many researchers, including Dr. Nicholson, state that asbestos exposure increases the incidence of lung and other cancers. We believe that doctors will interpret this finding to mean that asbestos was a significant contributing factor for lung and other cancers.

Our research indicates that 20 million people alive today have worked in occupations that will qualify under the FAIR Act. Millions of these individuals will develop lung and other cancers mostly from causes other than asbestos. Hundreds of thousands of them will also have pleural changes.

It is not possible to reliably know how many of these qualifying lung and other cancer claimants will file with the fund. However, the FAIR Act greatly increases the incentive for these individuals to file for compensation. Depending on their smoking history, these claims would receive between $200,000 and $800,000 from the fund.

This morning, I had the opportunity to review the written testimony of several members on the panel today who are critical of our study. I would like to thank these members for bringing to light several of the issues that clarify our analysis. Their criticisms are essentially three points.

First, they argue that we do not account for differences in exposure level within the population studied. This is incorrect. All of our models explicitly account for each individual's amount of exposure. Of the 27 million people in our study population alive in the year 2000, 18 million have low exposure levels and account for only a small fraction of the qualifying claimants.

Second, our critics assert that we overstate the number of individuals from low-exposure occupations who will qualify for compensation under the FAIR Act. This group is not the source of the

shortfall. These 18 million individuals account for only $30 billion of our $300 billion entitlement estimate. In contrast, the 9 million individuals with medium- to high-level exposure account for $270 billion, 90 percent of our low-end estimate. Even entirely excluding the low-exposure group, the trust fund remains insolvent.

Third, our critics assert that we assume a hundred percent of qualifying claimants would file with the fund. Actually, this grossly mischaracterizes our report. We explicitly address the difference between the entitlement created and the realized claiming rate. If all levels other than Level VI and Level VII file at their historical tort rates, then the trust has only sufficient funds to compensate at most 13 percent of qualified other cancer and non-asbestotic lung cancers. Given the financial incentive created by the FAIR Act for these cancers, I believe it is very unlikely that such a large fraction of these qualifying individuals would not file for their entitlement.

Thank you again for the invitation to appear today. I hope this summary has been useful. I would be happy to address any questions and I welcome the opportunity to work with Dr. Holtz-Eakin to reconcile our estimates.

[The prepared statement of Mr. Bates appears as a submission for the record.]

Chairman SPECTER. Thank you, Dr. Bates.

Our next witness is Dr. Laura Welch, Adjunct Professor of the Department of Environmental and Occupational Health at George Washington University, a department she previously chaired. She has held positions on the faculties of Yale University and the Albert Einstein College of Medicine. She has a very distinguished background in occupational care in health clinics.

We welcome you here, Dr. Welch, and the next 5 minutes are yours.

STATEMENT OF LAURA WELCH, M.D., MEDICAL DIRECTOR, CENTER TO PROTECT WORKERS RIGHTS, WASHINGTON, D.C.

Dr. WELCH. Thank you, Chairman Specter and members of the Committee. Thank you for having me here. As you know, I am here to give you some of my thoughts about the report that Dr. Bates was just discussing, which, as we have already said, estimates projected claims and costs of the proposed fund and comes up with numbers and dollars that are much higher than other estimates.

I want to focus some more on the medical criteria and some of the epidemiology. I am not going to come up with numbers and I would defer to other people on the panel in terms of the specific estimates. But I want to restate the rationale for the trust fund and some of the key points of the medical criteria which I think are important as we are talking about these different levels, the Level VIs, the Level VIIs.

Everybody agrees that the fund's goal is to compensate people who are sick from asbestos-related disease, and the agreement was people who had asbestos-related disease but no impairment are not compensated under this fund. I would like to point out that people who have asbestos-related cancer are sick. I think everyone would agree with that.

Individuals who have lung cancer with pleural plaque and substantial occupational exposure to asbestos have an asbestos-related cancer and must be compensated under this trust fund. Eliminating this group of workers from compensation under the fund would undermine the principles on which the trust is founded.

Then the medical criteria that were originally agreed upon by the Judiciary Committee in 2003 in conjunction with S. 1125 at that time were developed carefully in a bipartisan manner and based on sound science. In my view, those criteria were conservative. They don't include everybody that experts would say have an asbestos-related cancer. It is a conservative criteria.

But this year during the markup on the current bill, the criteria were made even more restrictive by eliminating the category of lung cancers with significant asbestos exposure but no x-ray changes. In my opinion, that change is contrary to the scientific evidence and it excludes asbestos-related cancers. That is kind of the background in which we are approaching some of these estimates.

Having read both the Bates and White report and then the additional PowerPoint presentations, my understanding of the estimates were that the report over-estimates the population eligible by including occupations such as Senator Feinstein was mentioning, occupations that maybe have a potential exposure to asbestos, but a low likelihood.

The bill is going to compensate not populations, but individual people. Individual people have to come forward and demonstrate that an individual person has exposure that meets the criteria under the bill. So putting in a population where there is the potential for exposure, not very many of those people in those low-exposure populations will be able to demonstrate what is required under the bill.

In addition, in my written comments I describe how I think that the estimate of pleural disease in the population at risk is much too high, as well. So you take the population at risk in pleural disease and the proportion of cancer in that population and you get a large number, but I don't think that that method is appropriate to basically multiply those things times each other. The proportion of pleural disease, I think, is too high.

One important point I want to make is that—and Senator Feinstein already pointed this out—the bill requires substantial occupational exposure, as she had read the definition, and also weighted years, so that for Levels VI, VII and VIII you have to have jobs that have substantial occupational exposure and then between 8 and 15 years in those jobs, using a weighted formula.

I can't imagine it is possible for someone who was a barber, a manicurist, a forester or any of those occupations to demonstrate that. It is possible. If someone can make the case, they can be compensated, but the subset of people exposed to asbestos who are eligible under the weighted formula is a very small number of the potential people who have had exposure in the past.

So let me say I think there is certainly uncertainty about the number of claims that can be filed and the funding that is needed. The AFL and the Building and Construction Trades are also con-

cerned that the level of funding could be insufficient, particularly in the early years when the number of claims will be the greatest.

The original legislation had provided for contingency funding and we would support having that in there. But at a minimum, the return to the tort system must be maintained so that the individuals who are sick from asbestos-related disease don't bear the burden of the uncertainty; that they are not left high and dry, as we might say, because of the uncertainty. I think, Mr. Chairman, you pointed out the importance of keeping that failsafe in there.

So let me stop there and take any questions.

[The prepared statement of Dr. Welch appears as a submission for the record.]

Chairman SPECTER. Thank you very much, Dr. Welch.

Our next witness is Mr. Mark Lederer, who is the Chief Financial Officer of the Manville Personal Injury Settlement Trust, giving him very extensive experience in the issues which we are looking at today. He has a bachelor's and master's from Johns Hopkins University and an MBA from Columbia.

Thank you for coming in today, Mr. Lederer, and we look forward to your testimony.

STATEMENT OF MARK LEDERER, CHIEF FINANCIAL OFFICER, MANVILLE PERSONAL INJURY SETTLEMENT TRUST, KATONAH, NEW YORK

Mr. LEDERER. Mr. Chairman and members of the Committee, my name is Mark Lederer and I am the Chief Financial Officer of the Manville Personal Injury Settlement Trust, which I will refer to today as the Manville Trust or simply the Trust. I may also refer to the Claims Resolution Management Corporation, or CRMC, the trust operating company that processes trust claims and maintains its data, which is located in Falls Church, Virginia. In the past, you have heard testimony from David Austern, the President of CRMC as well as the general counsel of the trust.

I will make only some brief summary comments here. I start by noting that the testimony I am giving reflects my personal opinions and not necessarily the position of the Manville Trust or of CRMC. You may recall that trustees have written to you stating their opposition to the FAIR Act, specifically the provisions that would confiscate the assets of the existing asbestos trusts.

From an initial funding of only $2.2 billion, the Manville Trust has paid out approximately $3.4 billion in claims, with approximately $1.7 billion in remaining assets, approximately equal to the estimated proceeds available to unsecured creditors if the Manville Corporation had been liquidated rather than reorganized. The Manville Trust has more experience with asbestos claims and projections than any other trust. Johns Manville was by far the dominant producer of asbestos and asbestos-containing products.

While asbestos claimants today seek compensation from scores or hundreds of different sources, most and eventually all file a claim with the Manville Trust, which has an efficient administrative procedure much like the one envisioned in the FAIR Act. Approximately 765,000 claims have been received, but of that number 73,000 have been withdrawn, many of them being duplicative and incomplete. And over 650,000 have been resolved. It is because the

Manville Trust has data relating to such a large share of the universe of asbestos claimants that people with different perspectives on the FAIR Act have relied on the Manville Trust data over the past 3 years.

I am not testifying today as an expert in projecting claims, but as one of the most experienced consumers of such projections. Reflecting this background, I did not come to criticize anyone's methodology. Rather, I came here to report on the Manville Trust experience with claims and claims projections which may shed some light on predictions that have been made regarding future claiming behavior.

The Manville Trust has commissioned seven claims projections over the last dozen years and has taken a lead in working with the experts who have performed the projections. The total number of claims the Manville Trust has received since its inception in 1988 has greatly exceeded projections. Every forecast has been exceeded by the ensuing forecast until the last forecast made this year.

As a result, the Manville Trust is able to pay only a fraction of the full value of claims. Our limited fund status and our goal to treat all claimants equally makes it imperative that our payments are based on reliable claim forecasts.

Not all types of claims have been equally unpredictable. The huge numbers of claims exceeding projections overwhelmingly have been non-cancer claims. To date, the underlying epidemiology makes projecting cancer claims more reliable than non-cancer claims, where socio-economic and legal considerations play a larger role. The number of cancer claims has been relatively stable, but with an upward trend, and it has been my experience that significant changes in criteria, process and financial incentives have and can dramatically change filing levels.

The value of compensation the Manville Trust currently pays is far less than the amount the contemplated fund would pay under the FAIR Act. However, in the current system expert plaintiffs' attorneys typically file claims against dozens of defendant trusts on behalf of each cancer claimant. The total value of settlements that the average cancer claimant currently collects from all sources has not been disclosed. Given that so much is uncertain regarding the forecasts, every effort should be made to learn as much as possible about current conditions.

Whatever the total value of settlements is in the current system, it is clearly a multiple of the value of unimpaired non-cancer claims. And it is our experience that the asbestos plaintiffs bar has been highly effective in identifying individuals with those lower-value claims.

A huge increase in lung cancer claimants with significant occupational exposure and underlying disease seems out of place in the context of over 20 years of claim experience. For that reason, and subject to learning more, the Manville Trust does not currently anticipate any large increase in the rate of cancer claims over its current projections.

The FAIR Act would create a different compensation environment than the current system, and the Manville Trust forecasts were not designed to predict behavior in that changed environment. How useful the Manville Trust's years of experience are in pre-

dicting claim filings under the Act depends in large part on the degree of difference between the systems for compensating claimants historically, including but not limited to the Manville Trust, and what is being proposed. I leave it to the Committee to decide the weight it chooses to place on the Manville Trust experience. If members of the Committee have further questions regarding that experience, I will try to answer them to the best of my ability.

Thank you.

[The prepared statement of Mr. Lederer appears as a submission for the record.]

Chairman SPECTER. Thank you, Mr. Lederer.

We now turn to Dr. Mark Peterson. For the past 14 years, he has been special adviser to the courts regarding the Manville Trust. He has extensive experience with the Federal courts and is an expert on how asbestos claims are valued. He has a law degree from Harvard and a doctorate from UCLA.

Thank you for coming in today, Dr. Peterson, and we look forward to your testimony.

STATEMENT OF MARK A. PETERSON, PRESIDENT, LEGAL ANALYSIS SYSTEMS, THOUSAND OAKS, CALIFORNIA

Mr. PETERSON. Thank you, Mr. Chairman and members of the Committee. Both CBO and Bates White have recently warned of risks of S. 852. My written testimony comments on both, but I will talk primarily today about the CBO forecasts and warnings.

CBO has stated a series of warnings about the risks of 852. They say the resources may be insufficient and would lead to the fund's sunset. They say that the value of claims may exceed $140 billion. They said that in addition to that, there will be significant interest costs.

Both of these estimates of liabilities and interest costs may be too low. CBO acknowledges that its forecasts are uncertain and says that they could be under-estimates, and that is the historic experience, as Mr. Lederer just described. CBO warns that the receipt of the $140 billion is, as they say, highly uncertain and forecasts of that are unreliable. They say the fund will incur a large debt, that S. 852 could increase insolvencies that would jeopardize the ability to repay the debt, and the Government general fund may have to repay the debt. Those are all warnings in the report.

CBO's report does not flesh out these warnings. How much interest? How much debt? What are the risks of sunset? To examine these questions, we used the available data in CBO's present and prior reports to understand and quantify these risks. We accepted CBO's estimate of the number of pending claims, the number of future claims, and used the values in S. 852 to place values on them.

For each year, we calculated the liability that would have to be paid under the terms of the bill based on the number of claims from CBO's analysis using the distribution of diseases among the categories of the legislation as CBO says they are and applied those values. We then ran a year-by-year cash-flow analysis calculating for each year the total liability that would be payable that year and the revenue that would be available to pay it, assuming warnings may be untrue, according to CBO—we assume that the funds will come in as the statute says.

We look at the borrowing capacity in each year and the amount of borrowing that would need to be made in that year and cumulatively. We look at the interest that must be paid that year. We determine the sunset, if there will be a sunset, when the fund's obligations exceed its resources, the revenues that in that year and future borrowings will be greater than its obligations, what the fund would owe to people whose claims have already been allowed but the second, third and fourth years have not been paid, the new claims arising that year, the interest for that year, and the debt burden that will have to be repaid, the principle and future interest.

Using this full set of CBO assumptions, we find that indeed the bill would sunset, and when it sunsets, it would have $35 billion of principle debt that needs to be repaid, and that overall to repay that debt up to that time it will have $35 billion of interest that will be payable from the fund. It will be able to pay only $103 billion to claimants.

We looked further, having been warned by CBO that its forecasts are uncertain, at a number of their assumptions. One is that only 22,000 pending claims have arisen in the last 3 years, which is a quarter of million less than the number of claims that have actually arisen in that year, and that otherwise CBO forecasts are likely to rise now on an annual basis.

We looked at what is their impossible startup date of January 2006. It can't happen. We looked at the low qualification rate that they use, which is rejected, in fact, by the sources, the Tillinghast work that was done for the Manville Trust in the forecast that Mr. Lederer referenced.

We corrected their forecast for all of these and when we re-ran the forecast, we saw that the bill would sunset within two to 4 years under CBO's assumptions, corrected for what I believe were inadequate assumptions they had. The debt at the time of sunset would be between $48 and $64 billion. Claimants would only get $82 billion.

We also know that the forecasts of the number of claims and the qualifications within disease categories are uncertain. To examine this uncertainty, we used Tillinghast's forecasts for Manville. There are 15 different scenarios that vary with the number of claims and the distribution of claims. These show that when you apply those to S. 852, we actually get fewer numbers of claims than CBO forecasts, but many more mesothelioma claims—69,000, compared to 49,000. The issue about the under-counting of cancers is not simply lung cancers, but also mesotheliomas.

The results of all these 15 analyses show that the fund will fail quickly, mostly in the first or second year. Only two of the 15 forecasts say that it would last into the third year. The debt at sunset would be between $60 and $67 billion. The amount paid to claimants would be between $73 and $77 billion.

All of these forecasts, all of these variations, including CBO's original forecast, confirm the risks that CBO warns about. The liability will exceed the revenues most likely in the first or second year. Interest paid by the fund will be between $35 billion and $77 billion. There will be an early sunset because of the high debt. Because of the high debt initially and the great risks that CBO identi-

fies, there will be an early sunset which will leave the debt at the time of sunset at between $35 and $67 billion.

Chairman SPECTER. Dr. Peterson, how much more time will you need?

Mr. PETERSON. I have one sentence. The claimants will likely receive only $75 to $82 billion.

[The prepared statement of Mr. Peterson appears as a submission for the record.]

Chairman SPECTER. Thank you very much, Dr. Peterson.

We have one more witness and I am advised that Senator Coburn has to depart in about 10 minutes. My plan would be to hear from Dr. Martin and then yield to you first, out of turn, so that you may question. Is that satisfactory, Senator Coburn?

Senator COBURN. Thank you, Mr. Chairman.

Chairman SPECTER. Our final witness on the panel is Dr. Denise Martin, Senior Vice President of National Economic Research Associates. An expert in tort economics and antitrust litigation, she authored the text Estimating Future Claims: Case Studies from Mass Tort and Product Liability. She is a magna cum laude graduate from Wellesley and has a master's and doctorate in economics from Harvard.

Thank you for agreeing to testify, Dr. Martin, and we look forward to your 5 minutes.

STATEMENT OF DENISE NEUMANN MARTIN, SENIOR VICE PRESIDENT, NATIONAL ECONOMIC RESEARCH ASSOCIATES, NEW YORK, NEW YORK

Ms. MARTIN. Thank you, Mr. Chairman and members of the Committee. It is an honor to be here today.

The Congressional Budget Office has estimated that the cost of compensating asbestos personal injury claimants under the FAIR Act is between $120 and $150 billion. To prepare that estimate, the CBO relied on standard, accepted forecasting methods, the same methods that were used to make the claims projection when the FAIR Act was initially proposed and the same methods that have been used to forecast claims in the tort system by virtually every expert, including by Bates White.

Here, however, Bates White has rejected these standard methods and relied on a series of flawed assumptions. The resulting claims projections simply do not stand up to scrutiny. At every critical step, their revised approach gets it wrong. Let me highlight some of these fatal flaws.

The Bates White analysis firstly grossly overestimates the population at risk from asbestos disease, conflicting with other published and accepted studies. Part of the problem is the inclusion of many industries and occupations in which workers had little or no asbestos exposure. We looked at the underlying data and found, as Senator Feinstein said, that Dr. Bates counts barbers, beauticians, bus drivers, salesmen and parking lot attendants in his asbestos-exposed group. It is highly unlikely that most workers in these groups will qualify for compensation under the FAIR Act. Using this flawed assumption, however, Bates White asks us to believe that half the adult male population in 1980 would have had enough asbestos exposure to qualify.

Having overestimated the population at risk, Bates White gets it wrong again. Their analysis underestimates the critical impact of the FAIR Act's exposure and medical requirements. The FAIR Act requires 15 years and 12 years of weighted exposure to asbestos for Levels VI and VII, which covers claims of lung and other cancers. That requirement will decrease the potentially eligible population, but it is ignored by the Bates White analysis. Instead, they appear to count every worker who ever spent a day in these supposedly exposed industries and occupations as a potential claimant. But every bus driver and every beautician is not going to file a valid claim under the FAIR Act.

Bates White also gets it wrong when adjusting for the FAIR Act's medical requirements. For a claim to be compensated under Levels VI and VII of the FAIR Act, the claimant must provide evidence of bilateral pleural disease. But Bates White relies on studies of populations that were more heavily exposed to asbestos than the taxi drivers and salesmen included in their greatly exaggerated population. That flawed assumption means that they are over-estimating the prevalence of pleural changes in these workers, and so are over-estimating the compensable lung and other cancer claims that could potentially arise from these populations.

Finally, Bates White gets it wrong because unlike the CBO, they assume that they claiming rates for cancer would be 100 percent, much higher under the FAIR Act than they are under the tort system. That outcome just isn't plausible. Plaintiffs' attorneys already have every incentive to file these claims in the current system and are doing so today. Given the nearly 40 years of asbestos litigation in this country, it is clear that claiming rates will not approach 100 percent.

The FAIR Act requirements for payment of lung and other cancer claims are more stringent than they are under the tort system. So contrary to the Bates White prediction, there is no reason to expect a massive surge in lung and other cancer claims in the trust fund.

The bottom line is that the Bates White $300 billion estimate, which it erroneously describes as conservative, adds more than 350,000 lung and other cancer cases that by standard methodologies, including that used to prepare the CBO, would not add to the liability of the trust. This goes to the heart of the problem with the Bates White study.

Let me conclude. We have closely reviewed the Bates White analysis, methodology and supporting assumptions. The study does not apply standard, accepted methods for claims estimation, even though these are the same methods that Bates White has relied on in the past. In deviating from these standard methods, they get it wrong at each juncture. Their analysis over-estimates the at-risk population. It does not take into account key medical and exposure requirements of the FAIR Act. It unrealistically assumes a 100-percent claiming rate. The study is filled with flawed assumptions and errors of omission. In short, the cost estimates in the Bates White report just do not add up.

Thank you.

[The prepared statement of Ms. Martin appears as a submission for the record.]

Chairman SPECTER. Thank you very much, Dr. Martin.

Senator Coburn, as I said, has other commitments.

Senator COBURN. I will be very brief, if I may.

Chairman SPECTER. You are welcome to my 5 minutes, Senator Coburn.

Senator COBURN. First of all, I would make a couple of notes for the record. In the criteria that this bill makes, we allow use of CT, which is not standard today. So many, many more people will qualify for pleural disease because we are going to use a test that has never been used for that, and you can show any type of pleural disease even in me or almost anybody at this table. So we have changed the standard and you can't move back and forth.

The second thing I would say—and I will say it again and I said it—there is no cohort study in the medical literature—that means forward-thinking study—relating cancer of the lung to asbestos exposure without the evidence of asbestosis. Now, there are case control studies, but there is no forward-looking study, which are the ones we depend on to make final judgments. The fact is that our bill allows those claims.

So what I want to do is just take a minute and allow Mr. Bates to respond to the claims of Dr. Martin in terms of the four things that she just said where you got it wrong.

Mr. BATES. Thank you, Mr. Coburn. I believe that I have primarily addressed the fundamental issues in our opening comments, because we had a chance to review the written comments of Dr. Martin this morning. I disagree emphatically with what she is saying.

We do not use methods which are not standard nor unaccepted. We simply do not rely on the fact that the claiming rates that we have seen in the tort environment will automatically extend over into what the trust fund does. The incentive that is created by the trust fund is different for different claiming groups, so that we simply take the methods that are one step removed prior to where the estimates of the claims are made and go back to the initial estimates of what the underlying population and what the amounts of the disease are.

We have had a number of people here mention that we used things like barbers, taxi drivers, and so on. Our model will exclude almost all of the, virtually all of them, because they simply will not meet the exposure requirements. We simply did not pre-judge the situation by excluding them from the studies that we have seen in industrial hygiene which actually have estimated some levels of exposure for some of these individuals.

So on the basis of our scientific study, we have included all of the potential from the industrial hygiene studies and then let the computer models and let the data exclude who will and will not qualify, based on the criteria that are specified.

As I indicated before, the issue of the large number of unexposed people is a red herring in this situation. Eighteen million of them account for a very small fraction of the overall disease and the overall qualifying population. They account for 10 percent, if you will, of the overall estimate we make at the low end, and we have not talked about the other risk factors which come into play.

To clarify further, in our analysis where we were doing the estimates of what the pleural rates would be, we, in fact, came up with

a point estimate looking across the various groups from approximately 13 percent as being the approximate low-end prevalence rate. We applied our judgment initially and assumed half of the low-end even from the numbers that we did have from the studies would not qualify and immediately just took that right off the top, basically reducing the level down to 10 percent. So we have effectively already removed half that population even before we did our initial estimate.

So, in summary, I would say that we applied, I believe, the very best possible methods, and I believe the only appropriate methods to use within the context to first estimate the appropriate population, the number of individuals who would qualify, apply the actual standards that the trust fund would be applying, and estimate the number of people who would qualify, and then present that number. We have also discussed what the potential claiming rates would have to be in order for the fund to be viable at that rate.

Thank you, Mr. Coburn.

Senator COBURN. Thank you. Thank you, Mr. Chairman.

Chairman SPECTER. Thank you, Senator Coburn.

Senator Leahy.

Senator LEAHY. Thank you, Mr. Chairman.

Dr. Welch, you sometimes probably feel you live in this Committee, but thank you for agreeing to testify again. You did a lot in formulating the Hatch-Leahy medical criteria last Congress. You were extremely helpful to Senator Specter and myself in formulating this bill.

Can you give us your opinion on how similar the eligibility criteria is for compensation under the current bill—how similar it is to existing bankruptcy trusts, or even the current tort system? I mean, how is the medical criteria in our bill going to impact expected filing rates and awards?

Dr. WELCH. Well, I think you will remember that when we started with the process, we started with the Manville criteria as kind of a model to work with and the final criteria are not exactly the same. But they are more similar than different, in my opinion, to the Manville and other bankruptcy trusts. The bankruptcy trusts are similar to each other for the purpose of ease of administration, multiple different trusts. They include compensation for lung cancer with pleural disease. This bill handles them in a slightly different way and the fund values are different, but I think it is similar. It is, as I said, more similar than dissimilar.

Senator LEAHY. What about—and I want to make sure I get it correctly—the eligible population used by Dr. Bates in his projection of cancer claims to be filed under the fund? Do you agree with that?

Dr. WELCH. Well, what Dr. Bates said here today I could not discern from reading his report, his PowerPoints, the answers to the questions from the Committee. So what he is saying here today—and I think Dr. Martin had the same impression—he is saying here today something completely different from what we got out of poring through 100 pages.

I can't run his model. I don't know that anybody has run his model or has it available to understand how he is saying he gets rid of these populations that we thought were excess. But I think

whenever you look at it, the numbers are still a lot larger. If you took the Nicholson estimates and said how many of those people are still alive today, it would only be 10 million, not 27 million. It is just different and I can't tell you exactly how, but every way we look at it the population at risk comes out a lot higher.

Senator LEAHY. You mentioned Dr. Martin and I just wondered if I might followup a little bit on that. We wonder how the filing rates, of course, are going to be affected by the creation of the asbestos trust fund. I mean, that is a huge question because either we get the trust fund right or we are way off based on the filing rates. Dr. Bates has said they will skyrocket. What is your opinion?

Ms. MARTIN. There has been a long history of asbestos litigation. In my opinion, the filing rates have gone as high as they are likely to go. There is nothing different about the FAIR Act. As we were just discussing, its requirements, its medical and exposure requirements are similar to that under the Manville Trust. When the Manville Trust implemented the 2002 TDP, claims fell off a lot, showing that you can contain claims with appropriate exposure and medical criteria. The incentives exist in the tort system. There is no reason to think new incentives are going to be created under the FAIR Act.

Senator LEAHY. Dr. Bates, we have been talking a lot about you. I don't want you to be in a position where you can't speak, but you say in your report that, and I quote it, "The size of the population in 2002 that would satisfy the occupational exposure criteria of this bill ranges from 27 million to 34 million." But the disease levels in the bill, except for mesothelioma, establish exposure criteria that require an individual had at least a specific number of weighted years of substantial—not just occupational exposure, but a substantial occupational exposure to asbestos.

Did you take that into consideration when you said what you did on page 17 of your report?

Mr. BATES. Yes, Senator Leahy, we did. I believe that that characterization there, as you can see from the comments today, includes many people who would have longer periods of exposure at perhaps quite low levels. And, of course, as I have indicated, we went ahead and allowed the models to go ahead and predict what the disease output would be from those individuals. The consequence of that is that very little disease comes out of the people even if they have fairly low-level exposures. So it is really not the issue here.

Senator LEAHY. You conclude up to 34 million would meet the criteria, but the term "substantial occupational exposure"—let me read from the bill—means that "the claimant either handled raw asbestos fibers; fabricated asbestos-containing products; altered, repaired or otherwise worked with an asbestos-containing product; or worked in close proximity to these kinds of asbestos operations and was exposed on a regular basis to asbestos fibers."

I mean, are you saying up to 34 million people could fit those criteria?

Mr. BATES. I would say that based on the industrial hygiene studies that there is the potential for that, but we actually account for the actual levels of exposures that the individuals do have in calculating the amount of the disease. So that is simply the initial

potential qualifying population which then has to be calibrated to the amount of disease and the exposure level for that population.

Senator LEAHY. Do you want to add to that, Dr. Welch? Then I will submit the rest of my questions.

Dr. WELCH. Well, I want to just add one observation that Dr. Bates in his report appeared to make the assumption that you could take a population exposed to asbestos and assume that the same amount of asbestos—if you exposed a hundred people or a million people, the same disease proportion would—you could attribute the disease in that population.

But it wouldn't apply because those hundred people might meet the weighted criteria, but if you took that exposure and spread it among a million people, none of them would meet the criteria. So you can't take the same exposure amount and spread it out in a bigger group and assume that those cancers will be eligible. They would not because it is per-individual, not per-population. Again, I don't know all the models, but that is one of the issues that he raised in his report and I don't know if that is appropriate.

Chairman SPECTER. Thank you, Senator Leahy.

Mr. Bates, I listened to your answer to Senator Leahy about the definition of substantial occupational exposure and had a hard time following it. We have taken the voluminous charts which you have submitted to us and when we talk about bus drivers and taxi drivers and manicurists and barbers and cooks, it is a very small enumeration from the many in this chart which have been yellow-lined by my staff.

When you make a projection on 27 to 34 million people being exposed, Dr. Welch has advised that the figure she sees is at about 10 million. And if you project from $132 billion from CBO to 27 million or 34 million, you come in my mathematics to $355 billion to $431 billion, which may account for the tremendous variance.

How can you possibly include the category of taxi drivers and manicurists in light of the clear-cut definition of substantial occupational exposure and the 8- to 15-year exposure rate required by the bill? How can you do that?

Mr. BATES. Well, Senator Specter, as I already indicated, the issue is really not those individuals in terms of the viability of the fund. If you look at the individuals who have moderate to heavy exposure, that is about 9 million individuals within the study, and that accounts for 90 percent of the dollars that we estimate.

Virtually all of the problem is associated with those medium- to heavy-level categories. We simply did not pre-judge the situation about what categories of individuals based on some a priori description on our judgment, but rather relied on the industrial hygiene studies which tell us which are the individuals that have any exposure level over long periods of time within their business and allowed the models to then pick out which ones would or would not qualify.

Chairman SPECTER. Thank you, Dr. Bates. Let me move on. Dr. Martin and Dr. Welch have pretty thoroughly decimated your estimates and your methodology.

Dr. Peterson, in a minute or less, can you tell me if you agree or disagree with the analysis of Dr. Welch and Dr. Martin in totally disagreeing with Dr. Bates?

Mr. PETERSON. I agree with Dr. Bates that there is a risk that there will be more lung cancer claims filed.

Chairman SPECTER. Would you deal with the analysis of Dr. Welch and Dr. Martin, please?

Mr. PETERSON. Well, I disagree with Dr. Martin's characterization of the claiming rates and propensity to sue in several regards. She says that they have reached their peak. That is something I have heard for 25 years of forecasting. All the forecasts that Mr. Lederer referred to when people have to revise it later is because people at the time said they reached their peak. She said they can't approach 100 percent, but the Manville Trust propensity to sue for mesothelioma is 85 percent. The standard—

Chairman SPECTER. Let me interrupt you, Dr. Peterson. I want to go to Mr. Lederer and I want to come back to Dr. Bates for a minute.

What is your reaction to the testimony of Dr. Martin and Dr. Welch on Dr. Bates's methodology?

Mr. LEDERER. Well, I think that I have great concerns about things like some of the peripheral occupations and industries that we are talking about in terms of substantial occupational exposure. For the Manville Trust, in 2002 when we established the new TDP which has criteria very similar to the bill, we established a table of significant occupational exposure. And in our several years of experience in actually implementing the trust in that bill, we have not added a single occupation or industry to it.

We have made a very limited number of exceptions. They have only been related to basically railroad sites. They have been site-specific covering not many individuals. So I have great concerns when we talk about these other occupations and bringing them in. The Manville Trust would not treat them as having SOE.

Chairman SPECTER. Dr. Bates, the staff had asked you for an itemization as to who your clients are. You have been retained by the American Legislative Exchange Council, which has been financed by a number of companies actively opposed to the bill—ExxonMobil, Liberty Mutual.

Would you provide the Committee with a full list of people who are involved in the American Legislative Exchange Council?

Mr. BATES. Senator Specter, I will be happy—I do not have that list, but I will be happy to provide that.

Chairman SPECTER. You would be happy to provide it. The second part of the same question: We asked for a contract and you said you had nothing in writing. Would you submit a specification of whatever contractual arrangements you have with the American Legislative Exchange Council?

Mr. BATES. Yes. I will have to talk with my partner who handled the administrative procedures. I am not aware of the details of that.

Chairman SPECTER. And would you also advise the Committee as to what your total fee was for this report to this group?

Mr. BATES. Certainly.

Chairman SPECTER. Thank you.

Senator Feinstein.

Senator FEINSTEIN. Thank you very much, Mr. Chairman.

Dr. Welch, may I begin to ask you some questions? Many have raised concerns that the medical criteria is too loose. Senator Coburn referred to that somewhat earlier. Let me go through various concerns one by one and get your response.

One criticism is that the language referring to bilateral pleural disease should be deleted? Do you agree?

Dr. WELCH. What would be substituted, unilateral or—I don't quite understand what the—

Senator FEINSTEIN. I can't answer that. I don't know.

Dr. WELCH. Then I don't know exactly what the implication would be.

Senator FEINSTEIN. That Level IIs will compensate smokers, but not those who have asbestos disease.

Dr. WELCH. No. I mean, Level II is set to the people who have asbestosis, but who also have smoking-related disease. They have both, and the compensation level is very low for Level II, but it is for people who have asbestosis.

Senator FEINSTEIN. That there is no casual relationship between asbestos exposure and other forms of cancer—no causal relationship. Excuse me.

Dr. WELCH. I disagree with that. Actually, Senator Coburn, before he left, said there was no prospective epidemiologic study. There actually have been two published this year, one that looks at the relationship between asbestos exposure and colon cancer, and the other that looks at the relationship between asbestos exposure and lung cancer, both out of the Yale University School of Medicine that are very relevant to this Committee. And the colon cancer one finds a causal relationship.

Senator FEINSTEIN. Next one: according to Dr. Crapo, pleural plaques do not predict enhanced risk of lung cancer. Rather, this enhanced risk is found only with asbestosis. Therefore, the new Level VII should be eliminated.

Dr. WELCH. I completely disagree. It is exposure to asbestos that causes lung cancer. The people with asbestosis are, by definition, people who have had very high exposure because you need high exposure to get asbestosis. So their risk of lung cancer would be higher than the general population. Plaque also is an exposure marker. So that group of people have higher risk of lung cancer.

The Cullen study, which actually looks at people highly exposed, people highly exposed with plaque and people highly exposed with asbestosis, finds a risk of exposure in each one of those groups. So it is again very relevant to this question and I think it is a very good study.

Senator FEINSTEIN. The last one: CT scans should not be used. Their use will mean more smokers will qualify for compensation.

Dr. WELCH. The American Thoracic Society recently came out with a statement on the diagnosis of asbestos-related lung disease and makes the point that CT scan is the best available test for diagnosis of asbestosis. It is better than chest x-ray; it is more specific. I mean, the findings on CT scan can be more specific, more clearly diagnose asbestosis than a chest x-ray.

Senator FEINSTEIN. Well, let me ask you, there is so much imprecision now about the numbers, whether this comes in within the $140 billion or doesn't. That is a big chance for legislators to take

in voting for a bill. If you had to tighten this up, what would you recommend?

Dr. WELCH. Really, I think the bill is very tight. If you figure out the amount of exposure that is required by those weighted years, it is higher than what is used for compensation across the world. It is higher than what the Helsinki criteria recommends. It is very high; it is a very high standard to meet. If there are more people who deserve compensation under those standards than the $140 billion, then you need more money than $140 billion.

Senator FEINSTEIN. I want to ask the others that same question. Mr. Peterson?

Mr. PETERSON. I would agree with Dr. Welch.

Senator FEINSTEIN. So in other words, the levels cannot be tightened?

Mr. PETERSON. I don't believe they can be tightened in any significant way, but they constitute a risk that there are going to be considerably more claims than we have been talking about. Frankly, it is a nicely designed system that just doesn't have enough money.

Senator FEINSTEIN. Mr. Lederer?

Mr. LEDERER. I really would sort of defer that question to other members of the panel that have more expertise in medicine.

Senator FEINSTEIN. The same thing for Dr. Martin?

Ms. MARTIN. Yes, Senator.

Senator FEINSTEIN. Dr. Bates?

Mr. BATES. I haven't studied that, but what I have studied is the amount of money that would be required to pay the bill as specified and it is simply not enough money.

Senator FEINSTEIN. All right. Now, essentially, if I look at what you are saying correctly, you are saying that out of 192 million adults 21 and older in the United States in 2000, 27 to 34 million would satisfy the criteria in the bill. That means that individuals will show substantial occupational exposure. Now, that would mean that between 14 and 17 percent of the entire adult population would qualify.

Mr. BATES. Senator Feinstein, I believe there are people who have worked in occupations where there has been asbestos exposure over long periods of time. What the exact list of the occupations will be that comes out of that is not something that is specified. There is not a clear-cut definition of what will qualify based on how the fund will do. We simply used all of the individuals who have a sufficient amount of time in jobs where industrial hygienists had specified their—

Senator FEINSTEIN. But it is a substantial amount of time. I don't mean to interrupt you, but just to discuss it for 50 seconds, it is between 8 and 15 years of weighted exposure.

Mr. BATES. Yes, I understand, Senator Feinstein.

Senator FEINSTEIN. That is a long time.

Mr. BATES. Yes, I agree, but I believe that when you look at individuals and you look at the turnover in job rates that individuals have that that is what you will find. That is the result of the research.

Senator Feinstein, I did not expect to find this result when I started this. I was very, very skeptical of it. Doing this work that

I have over the time, when my study team first presented to me the notion that this would be the number of people who would qualify and this is what we would see for Level VI and Level VII, I told them they couldn't possibly be right.

I had them go back to the ground-up and rework the analysis and explain to me in every detail, and I became convinced over time that this was the issue. I had no bias about that.

Chairman SPECTER. Dr. Bates, I am sorry to interrupt you. We have two more members to inquire and I will turn now to Senator Cornyn.

Senator CORNYN. Thank you, Mr. Chairman. I guess the task that we have to undertake is to determine what the best methodology is to estimate future claims and the mix of those claims. And as Senator Feinstein has pointed out, that is no easy task, but I would note that the Statistical Assessment Service at George Mason University has issued a report which has been made part of the record which concludes, in part, that by looking at the overall number of people who suffered asbestos-related injury, Bates White comes up with the most accurate measure of how many people will apply to the trust fund. So that is another view confirming the Bates White study, and I offer that just for people to take into consideration.

In looking at the various methodologies, we talked about claims filed in court as one, claims experience with existing trusts, I guess, like the Manville Trust, and, third, the epidemiological estimates that Bates and White use.

Mr. Lederer, you indicated that all previous attempts to forecast the number of claims against the Manville Trust have been off, and that the actual experience has significantly exceeded those forecasts. Is that correct?

Mr. LEDERER. That is correct, except for the most recent forecast, which is this year.

Senator CORNYN. Let me also explore a little bit of that with you. Under this bill, some cancers would receive up to $200,000 per claim and under the Manville Trust it is my information that those same types of claims would receive only about $4,500, on average. Can you confirm that?

Mr. LEDERER. If we are talking about the other cancer claims, our scheduled values are $40,000. We are only able to pay 5 percent of that now, so it is actually lower than that. It is only $2,000.

Senator CORNYN. But doesn't it make sense that if a claimant can receive $200,000, they are much more likely to make that claim than if they can only receive $2,000?

Mr. LEDERER. Well, I think it goes to the issue, though, that there are multiple defendants out there. People rarely file claims solely against the Manville Trust. You can't look at the situation as just what is the amount of the Manville recovery. You have to look at it from the plaintiffs' lawyers point of view, which is what is the total recovery on the claim, and that is going to motivate them whether or not to file this claim when they look at it net of their costs.

So I think you really need to know what the other defendants are paying, along with the Manville Trust. I think if you look at the history there, unfortunately, there isn't a national data base of

claims in one location that one can go to to figure out what the total recovery is. But if you put the pieces together, you might find out that the amounts paid historically are closer to what is in the FAIR Act than maybe we imagined previously.

You know, to me, this is an area where there has been a lot of speculation and we are speculating about exposed populations. I just take it from a more practical point of view, which is there is information out there that is relatively certain, which is what has been the claiming rate in the past, what have people paid, what have been the costs. Yet, that information which would be very helpful has not come forward. So, you know, it is unfortunate because I think if you had the comparison between the older settlement information, not just the Manville Trust, but all defendants against the FAIR Act, then you could really judge whether there is a financial incentive, whether there is a higher incentive, because that is what we are really talking about here. What is the change in the incentive?

Senator CORNYN. Well, would you agree with me that people are much more likely to make a claim for more money than less money?

Mr. LEDERER. Absolutely, but let me just give you an example. If the FAIR Act—

Senator CORNYN. No, I am sorry. My time is really limited.

Mr. LEDERER. I am sorry.

Chairman SPECTER. Senator, I will give you more time if you need it.

Senator CORNYN. Will you? OK, thank you. I was just afraid the time would run out.

Mr. LEDERER. You know, if at a particular level the compensation is, say, $1 million and the historic compensation, though, in the system is, say, $500,000, yes, the FAIR Act is considerably more than what has been paid in the past. But it isn't necessarily the absolute amount. It is whether it is a sufficient amount to generate the interest on the part of the claimant and the plaintiff's lawyer that may represent that claimant in order to file the claim. So I don't think we should just look at it in absolute terms, but relative terms as to what their return on capital is. It is a business.

Senator CORNYN. Thank you for that. Would you also agree with me that if you just look at previous court cases, a non-adversarial claims process such as that included in the FAIR Act, like the Manville Trust, would be much more likely to generate more claims as compared to what you might see in court-filed lawsuits?

Mr. LEDERER. I would, but again I would say we don't have the historical data—I don't have the historical data to indicate how many lung cancers in the past have actually had to go to litigation as opposed to settle. So, clearly, the ones that had to go to litigation paid more, but it may be that a fairly large proportion of those lung cancers settled, in which case their costs would be less.

I mean, the kinds of cases we are talking about here are very serious lung cancer cases with significant occupational exposure and underlying markers. These are not the kinds of cases that the Manville Trust would ignore, nor do I think any other defendant. I mean, you would want to settle these kinds of cases.

Senator CORNYN. Well, the concern we have here—and this will be my last statement—is that we need some oak tree to hug in this process, something that would give us the confidence that we are doing the right thing for the most people. And, it is not acceptable to do something that will end up in a grossly underfunded trust and revert to the same broken tort system, or perhaps as the Budget Committee recently opined, ask the American taxpayer to pick up the tab.

Thank you very much, Mr. Chairman.

Chairman SPECTER. Thank you, Senator Cornyn.

Senator Durbin.

Senator DURBIN. Thank you very much, Mr. Chairman. I know Senator Kyl and I want to both make this roll call, so I will try to make it shorter than five minutes. Let me just say that I think it is fair to conclude—

Senator KYL. Senator, might I just interrupt you? Why don't I simply submit some questions for the record and I will go ahead and that way we won't have to worry about truncating your time? I thank you very much.

Senator DURBIN. Thank you very much.

It is fair to conclude that what we what we have heard today and what we have read suggests that the estimated cost of this undertaking, this program—by CBO estimates, we see a shortfall of up to $10 billion; the Bates White study, a shortfall of $161 to $421 billion, and Dr. Peterson's testimony believes a shortfall of up to $50 billion.

If you accept those premises, the FAIR Act, as currently written, is not financially sound and it forces us to make one of three choices if we are go to go forward: to reduce victim compensation, to increase the assessments on businesses to pay into the fund, or to make the Federal Government the guarantor of the trust fund and say whatever the cost, we are going to pay it, and the taxpayers will ultimately be the source of that money. I don't know what other conclusion we can draw from what we have heard today.

Is there anyone else who has another thought on this that I am missing?

[No response.]

Senator DURBIN. All right, then I will take that as a yes. Those are three options as we face them.

I would like to ask you, Dr. Welch, Peg Seminario from the AFL–CIO has expressed deep concern that the cost estimates done by the CBO under-estimate the number of mesothelioma claims. Data from the National Center for Health Statistics show that the number of deaths actually reported to be from mesothelioma in the U.S. are running 25 percent higher than the number of claims that have been projected by the CBO in their cost estimates.

She also claims the total number of meso deaths in America has not yet peaked and we should expect to see an increase in data in the coming years. Additionally, a recent study by the National Institute of Occupational Safety and Health suggests an even higher number of mesothelioma deaths, which would obviously increase the size of the claims relied upon by the CBO estimate.

Are you familiar with her work and these Government estimates, and do you reach the same conclusion?

Dr. WELCH. Well, actually, Dr. Peterson, I think, addressed that, the mesothelioma estimates in some detail, didn't you?

Mr. PETERSON. Yes.

Dr. WELCH. And I think he and Peg—I do agree with their analysis, although they certainly understand it in more detail than I do. Mesothelioma is an important kind of pegged disease because everybody agrees it is asbestos-related.

Senator DURBIN. Yes.

Dr. WELCH. And the numbers are small, but the values are very high, so getting that number correct—if we are wrong about that number, then we are probably wrong about the other estimates as well.

Senator DURBIN. And as I understand it, Dr. Bates, you have said that some of the—let me just say as a preface some of us on the Committee have been trying for a long time to figure out how Goldman Sachs came to these numbers, $140 billion. We have asked for data, we have asked for information. We have never seen it. I don't know what they used to reach the $140 billion figure, and it is frustrating that that is what we are working off of with no proof.

Dr. Bates, you refer in your analysis to the fact that the Nicholson study is an old study back in the 1950's, if I am not mistaken.

Dr. BATES. No. In 1982, it was published.

Senator DURBIN. 1982, I am sorry. So your estimates are updating what the Nicholson study had found. Is that correct?

Mr. BATES. That is correct.

Senator DURBIN. So if the used—and I don't know what Goldman Sachs used. It is a mystery as to what they used. Then it is understandable that these figures—once we consider that the black lung estimated claimants turned out to be dramatically higher than we thought and the Manville Trust situation resulted in more claims, it leads me to the conclusion that we tend to low-ball the exposure of these funds and then learn later that we need more money.

Is that a fair general conclusion?

Mr. BATES. I believe that you need to pay attention to the economic incentives that are there, and the economic incentives created under the FAIR Act are ones that will increase the claimants over the tort environment.

Senator DURBIN. Mr. Chairman, the last thing I will ask is this: You have asked for Dr. Bates to produce his contract and how much he is paid and his list of clients. Would it be fair to ask the same thing of the Asbestos Study Group, Navigant and Goldman Sachs?

Chairman SPECTER. Certainly. You have asked them.

Senator DURBIN. Well, I can ask all I want, but as Chairman you can get it.

Chairman SPECTER. Well, I will repeat my answer. Dr. Bates has come forward with a report which is grossly at variance with everything else that I know and I have heard, and his group is actively opposing the bill and I think the questions I put to him were very light.

Senator DURBIN. The last question I might ask is we would not want to also know if there is any bias in those who are actively supporting the bill?

Chairman SPECTER. Senator Durbin, I am not a witness here and I have answered your question.

Thank you very much, Dr. Bates, Dr. Welch, Dr. Peterson, Mr. Lederer and Dr. Martin. We appreciate it very much.

[Whereupon, at 3:50 p.m., the Committee was adjourned.]

[Questions and answers and submissions for the record follow.]

[Additional material is being retained in the Committee files.]

QUESTIONS AND ANSWERS

Questions for Dr. Charles Bates
Submitted by Senator Patrick Leahy
November 17, 2005

1. The report you issued in September 2005 concludes that the overall number of individuals who would qualify for asbestos exposure as defined under the bill is between 27 and 34 million. However, at the recent hearing you testified that only a small portion of this group would fall into occupations with low or medium exposure. Please clarify the following:

A. Which occupations are in each of the high, medium, low exposure?
B. How many people are in each of in high, medium, low exposures?
C. How many claims do you estimate per category - high, medium, low exposures?
D. What is the cost of claims for high, medium and low exposures?

2. In discussing the prevalence of pleural conditions in paragraph 99 of your report you divided workers among high, medium and low exposure groups. Please answer the following questions about these exposure groups:

A. What are the occupations in each of the groups (high, medium and low)?
B. How many workers are in each of these 3 groups, is it everyone who worked in the occupations prior to 1976? And how was that number calculated?
C. Of the workers in each of the groups (high, medium and low) how many do you estimate meet the substantial occupational exposure criteria in the bill for Level VI, VII and VIII?
D. How many workers in each of the groups (high, medium and low) do you estimate that qualify for Level VIII, VII and VI? How many of the eligible claimants in category VIII, VII or VI are high, medium or low exposure?

3. In your report you indicated that $270 billion of the $300 billion in estimated costs came from the high/medium exposure group, and $30 billion from the low exposure group. Please provide a cost break-out by disease category of these three exposure groups.

SENATOR JOHN CORNYN
QUESTIONS FOR ASBESTOS HEARING – 11/17/05

To Doctor Charlie Bates (Bates and White)

1. Many have criticized your analysis because it "assumes" that 100% of possible claimants will indeed file a claim. So, for example, your conservative estimate of $300 Billion – how much should that be reduced to account for the fact that obviously not all folks will file for claims? Or, better stated – what would be a conservative assumption for us to use for the likely number of those who will file a claim – 10%, 25%, 50%, 75%, - or, even, 100%? Why? What comparisons are there? Or, is this a misunderstanding - why didn't Bates and White apply such a claiming rate in its presentation?
2. Dr. Martin claims that Bates White rejected standard estimation methods. In what manner do your methods differ from standard methods? What, in your opinion, are the pros and cons of the various methods and why do you choose the method you choose?
3. Dr. Martin and Dr. Welch claim that Bates White makes no adjustment for exposure requirements. What, if any, adjustment does Bates White make? More, what is the impact of restricting the exposed population that would qualify under the FAIR Act to those with medium to high levels of exposure?
4. Dr. Martin says that she corrected many articles for selection bias. Did Bates and White do this? Why or why not?
5. Some critics have claimed that Bates White includes barbers, beauticians, bus drivers, taxi drivers, parking attendants or other similar occupations in the exposed population unnecessarily – or – in a way that misrepresents the potential population. Does Bates and White do this? How does Bates and White compare to other analyses in this regard?
6. Did Bates White use a higher turnover rate than Dr. Nicholson, as Dr. Martin and some others seem to claim?
7. I am trying to understand the relative exposure risks of those you and others have analyzed – in the Bates and White analysis, does a barber, for example, who started work in 1970 have the same risk of asbestos related lung cancer or other cancer as an insulator who worked in a shipyard during World War II?
8. Mr. Lederer raised a question in his testimony, and I would like your answer to it. He asked: *"The Manville trust has been inundated with hundreds of thousands of lesser valued claims on behalf of unimpaired individuals. If a large population of more highly valued eligible lung cancer claimants existed in the past, why didn't they file claims as well?"* – Please respond.
9. Some questions have been raised with respect to the value we should place on testimony, valuations or presentations given certain "biases" that may exist based on who may be paying for services. Just so we can be clear, can you please provide for the Committee a list of clients for whom you or your employer have provided services with regard to Asbestos, a list of any organizations for whom you have performed work pro bono with respect to Asbestos – and specifically any information about the nature of your work or the work of your employer in the past with respect to Asbestos projections, assessments, valuations or any related work?

Questions for Dr. Bates
Senator Specter
November 17, 2005

1. I understand that a group of companies that actively oppose S. 852 provided the American Legislative Exchange Council (ALEC) with funding to commission your report. Is this true? Please provide a list of companies that provided funding for your report. Also, please provide a copy of the contract that you have with ALEC, the fee that that Bates White LLC charged ALEC to complete the report and any Request for Proposal or similar document that ALEC or any other entity or person provided to Bates White LLC prior to hiring Bates White LLC to complete the report on S.852.

2. Your report estimates that 139,000 claimants with lung cancer and 212,000 claimants with other cancers will be entitled to compensation under S. 852. Identify the qualifying occupations held by these projected claimants in each disease category? Approximately how many, or what proportion, of these claimants fall within each occupation?

3. Your letter to the Committee of November 7, 2005 states that you relied upon Johns-Manville data you obtained in 2002 to develop your cost estimate for S. 852. Describe in detail what exactly you were provided from the Manville Trust (a.k.a. Claims Resolution Management Corp.)? From whom did you obtain the Johns-Manville data and in what format (e.g., memo, spreadsheet, etc.) was the data provided?

4. Your methods in establishing projected malignant claims under S.852 appear to differ significantly from those methods that rely on the incidence of filings in the tort system. Have your projection methods been accepted by asbestos bankruptcy trusts in projecting their own claims? If so,

please identify those bankruptcy trusts.Have your projection methods been endorsed by any of the bankruptcy courts that approve these trusts? If so, please identify the style of the underlying bankruptcy proceeding, identity of the bankruptcy judge and any related published or unpublished opinions.

5. Your report establishes an "eligible population" of 27 million people who would satisfy the bill's occupational exposure requirements. This estimate is significantly higher than those of other experts. Your letter to the Committee of November 7, 2005 explains that your estimate varies from other estimates largely because you included numerous occupations and industries not included by other experts, including architects, bus drivers, housekeepers, barbers, manicurists and taxi cab drivers.

    a. S. 852 requires that claimants establish "substantial occupational exposure" where the claimant had direct and regular exposure to asbestos fibers. You testified that 9 million individuals with "medium- to high-level exposure" will account for 90 percent of the amount paid to lung or other cancer claimants. What occupations fall within the category of "medium- to high-level exposure"? Is it your contention that these claimants all had direct and regular exposure to asbestos? Is it your contention that all of these claimants would meet the requirement of having a minimum number of weighted years of substantial occupational exposure?

6. S. 852 requires that claimants had substantial exposure to asbestos for a minimum number of years, years that are weighted for the intensity of the exposure based on when the exposure took place. For example, S. 852 requires that for

Level VII lung cancers with pleural disease that the claimant establish a minimum of 12 weighted years of exposure, and for Level VI other cancers the exposure requirement is 15 or more weighted years. Moreover, because state and federal regulations ended most significant occupational exposure to asbestos in the '70s, the Act's exposure criteria discount years of exposure after 1975.

Your estimate includes in the population potentially eligible for payment under the Act workers that began work in 1965, 1966, 1967 and all the way up to workers who began work in 1975. Workers in many of the occupations you include who began work in 1973 would have to show 49 years on the job for a Level VII claim or 79 years on the job for a Level VI claim. Your analysis suggests each such worker had this extraordinary job tenure.

a. What is your basis for assuming that a worker who joined the work force in 1975 has the same level of weighted year exposure to a worker who joined the workforce in 1950?

b. Do you have job tenure data that suggests workers have average job tenures of 15 years, let alone 49 years or 79 years?

c. If not, haven't you drastically overestimated the number of workers that would be eligible for compensation under the Act?

Questions for Dr. Bates

1. In conducting your analysis, were you provided with the data that the drafters of this bill used in coming up with the figure of $140 billion?

   a. If not, would it be useful to you to review that data?

•••BATES•WHITE•••

Memorandum

To	United States Judiciary Committee
From	Charles E. Bates, PhD
Date	January 10, 2006
Re	Responses to questions from Committee members

Responses to Senator Leahy's questions

Question 1:

To clarify the question, at the recent hearing I testified that only a small portion of the candidate population would fall into occupations with medium and high exposure. A large portion of the population worked in occupations with low exposure.

A- In our report, we assign the candidate population an exposure risk index that differs by occupation, industry, and year of employment. We use this index to divide workers into high, medium, and low exposure categories for discussion purposes. The high exposure group includes individuals who worked in occupations that were subject to asbestos exposure at levels significantly higher than other occupations. These occupations include asbestos workers, insulators, boilermakers, plumbers and pipefitters. The high exposure group accounts for over 50 percent of all future mesothelioma cases. The medium exposure group is composed primarily of construction workers, who worked directly with asbestos or who worked on sites when asbestos installation was performed. The medium exposure occupations include, for example, electricians and metal workers. Industrial hygienists characterize these occupations as having one-sixth to one-half the relative risk of high exposure occupations. The lowest exposure group is the largest group in the candidate population. Even though we discuss the low exposure group as a whole in our report, we divide them into two groups for analytical purposes. The high-end of the low exposure group includes occupations that had regular but low level exposure to asbestos. This group includes occupations such as auto mechanics and painters. The low-end of the low exposure group includes occupations identified by industrial hygienists as having more limited or less regular exposure to asbestos. This group includes occupations such as barbers, beauticians, taxi drivers, and bus drivers. The low-end of the low exposure group includes 11 million

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people. In calculating our estimates we have excluded this group from Level VII lung cancer with pleural markers and Level VI other cancer categories since this population is less likely to be placed on the list of significant occupational exposure (SOE) by the Trust administrator.

B- Exhibit 1 summarizes the size of the candidate population for each exposure group. We include high, medium and the high-end of the low exposure groups in our calculation of Level VII lung cancer with pleural markers and Level VI other cancer claimants. We exclude 10.9 million people who worked in occupations that are classified by industrial hygiene and epidemiology studies as low exposure occupations.

Exhibit 1: Population size by exposure level

	Exposure level				Total
	High	Medium	Low (SOE)	Low (non-SOE)	
Population	2.3 million	6.8 million	7.0 million	10.9 million	27 million

C- Exhibit 2 summarizes the number of potential claimants by disease category and exposure level.

Exhibit 2: Qualifying potential claimants by exposure level

	Exposure level				Total
Claims	High	Medium	Low (SOE)	Low (non-SOE)	
Level IX - Mesothelioma	28,000	15,000	5,000	1,000*	49,000
Level VIII – Lung cancer with asbestosis	37,000	21,000	7,000	1,000*	67,000
Level VII – Lung cancer with pleural markers	44,000	70,000	25,000	0	139,000
Level VI – Other cancers	64,000	108,000	39,000	0	212,000

* Assumed to pass individual review.
Note: Totals may not match sums of categories due to rounding.

D- Exhibit 3 summarizes the entitlement by exposure groups.

Exhibit 3: Breakdown of entitlement by exposure groups

Claims	Exposure level				Total
	High	Medium	Low (SOE)	Low (non-SOE)	
Malignant diseases	$118 B	$117 B	$41 B	$2 B	$279 B
Impaired nonmalignant diseases					$16 B
Administrative cost					$5 B
Total					$300 B

Note: Totals may not match sums of categories due to rounding.

Question 2:

A- Please see our answer to Question 1 Part A.

B- Please see our answer to Question 1 Part B for the number of people in each exposure group. These numbers are calculated using government census and labor data that provide the number of individuals in these occupations. The actual number of workers employed in these occupations exceeds the numbers listed in Exhibit 1. We drop short-tenured workers, understate the number of long-tenured workers, and exclude all individuals born after 1958.

C- We expect that the vast majority of workers that we identify as satisfying the medical criteria for compensation under Levels VI, VII, and VIII of the Fund will meet the substantial occupational exposure (SOE) criteria. Over 80 percent of the entitlement for Level VI and Level VII correspond to workers with high to medium exposure. S.852 credits most of these workers with four and two weighted years of exposure for each year worked, respectively. Therefore, prior to 1976 workers in occupations that receive four weighted years for each calendar year require only three years of employment to qualify for lung cancer and four years to qualify for other cancers. Similarly, workers in

occupations that receive two weighted years for each calendar year require six and seven and a half years respectively. In the context of a working career, these are very low duration requirements.

Further, the SOE criteria exclude very few individuals who satisfy the medical criteria because duration of exposure is highly correlated to the presence of pleural abnormalities. People who did not work in asbestos exposed occupations for an extended period of time are not likely to develop pleural markers. Therefore, a vast majority of Level VI and VII claimants who have lung and other cancers with pleural markers will satisfy the substantial occupational exposure criteria.

This fact is supported by the medical literature as well as past claims data. Medical research has repeatedly reaffirmed the strong correlation between the duration of exposure and the prevalence of pleural abnormalities. For example, Dr. Nicholson used the prevalence of pleural abnormalities in an occupational group to infer the amount of asbestos exposure those workers experienced. More recently, Baker, et. al. (1985), for example, found that sheet metal workers with 10 or fewer years in the trade had dramatically lower prevalence of bilateral pleural abnormalities (6.3 percent) than those with more than 30 years of experience (70 percent).[1] Similarly, Fischbein et. al. (1992) examined millwright and machinery erectors and found that the prevalence of bilateral pleural abnormalities increase from around three percent for workers with less than 10 years tenure to over 50 percent in workers with employment of 20 years or more.[2]

In addition to the medical literature, historical claims data also indicate that the vast majority of lung and other cancer claimants with pleural markers will meet the SOE criteria. In particular, using Manville exposure records as a proxy for potential claimants' work histories, over 90 percent of lung and other cancer patients with pleural abnormalities will satisfy the SOE requirement.

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[1] Baker et. al. (1985) "Respiratory illness in the construction trades", Journal of Occupational Medicine, vol 27, no 7.

[2] Fischbein et. al. (1993) "Respiratory finding among millwright and machinery erectors: identification of health hazards from asbestos in place at work", Environmental Research, vol 61, 25-35.

Finally, we account for the small number of lung and other cancer patients who would not satisfy the SOE criteria. We do this by understating the number of lung and other cancer patients with pleural abnormalities by more than enough to offset the impact of the SOE criteria. In particular, we drop short-tenured workers, understate the number of long-tenured workers, decrease the prevalence of pleural abnormalities for more recent birth cohorts, exclude all individuals born after 1958, and eliminate the 10.9 million workers in the low-end of the low exposure group. A significant number of the workers we exclude are likely to meet the SOE criteria. For example, an insulator born in 1959 and began work in 1977 would need only six years of employment to meet the SOE criteria for Level VII lung cancer. Manville data contains well over a thousand claimants who were born after 1958, most of whom would meet the SOE criteria, but are excluded from our analysis. Seventy of these Manville claimants born after 1958 have mesothelioma, demonstrating potentially significant asbestos exposure to individuals we excluded from our estimate.

D- Exhibit 4 summarizes the estimated number of qualifying claimants for Levels VI, VII, and VIII in each exposure group.

Exhibit 4: Qualifying potential claimants by exposure level

	Exposure level				Total
Claim levels	High	Medium	Low (SOE)	Low (non-SOE)	
Level VIII – Lung cancer with asbestosis	37,000	21,000	7,000	1,000*	67,000
Level VII – Lung cancer with pleural markers	44,000	70,000	25,000	0	139,000
Level VI – Other cancers	64,000	108,000	39,000	0	212,000

* Assumed to pass individual review.
Note: Totals may not match sums of categories due to rounding.

Question 3:

Exhibit 5 summarizes the breakdown of the estimated entitlement by exposure group and disease category. Of the total estimated entitlement of $300 billion, only $29 billion is due to Level VII and Level VI cancers in the low exposure group.

Exhibit 5: Breakdown of entitlement by disease category and exposure level

Claims	Exposure level				Total
	High	Medium	Low (SOE)	Low (non-SOE)	
Level IX – Mesothelioma	$37 B	$19 B	$7 B	$1 B*	$64 B
Level VIII – Lung cancer with asbestosis	$32 B	$19 B	$6 B	$1 B*	$58 B
Level VII – Lung cancer with pleural markers	$32 B	$51 B	**$18 B**	**$0 B**	$102 B
Level VI – Other cancers	$17 B	$28 B	**$10 B**	**$0 B**	$55 B
Level II – V – Impaired Nonmalignant					$16 B
Administrative cost					$5 B
Total					$300 B

* Assumed to pass individual review.
Note: Totals may not match sums of categories due to rounding.

Responses to Senator Cornyn's questions

Question 1:

In our report, we explicitly state that our estimates reflect the *entitlement* created by the FAIR Act. We have not performed an extensive analysis on what percentage of eligible claimants would file because there is no historical data regarding asbestos claims against federally run trusts. However, the tort experience does provide guidance. In the tort environment, once a population of compensable claimants is identified, over 70 percent of those compensable claimants pursue their claims. CBO reached this conclusion for mesothelioma victims, lung cancer patients with underlying asbestosis, and individuals with impaired asbestosis. These

tort-based claiming rates likely understate the claiming rates that will be observed under S.852, since S.852 replaces the adversarial tort system with a no fault administrative process.

S.852 would create a new, well-identified population of compensable lung and other cancer victims under disease Level VI and Level VII. It is reasonable to conclude that over 70 percent of these victims would pursue their claims. (In contrast, CBO assumes that the vast majority would not pursue their claims, even though the average compensation exceeds $500,000.)

Exhibit 6 displays the cost of the Fund under two claim rate scenarios. Note that in both scenarios, we do not apply a claiming rate to the impaired non-malignant claims. This is not an omission, but rather an artifact of how we calculate the entitlement for non-malignant claims. We estimate the future number of impaired nonmalignant claims by projecting the observed number of impaired non-malignant tort claims. Thus, the estimate for non-malignant claims already reflects the historical claiming rate in the tort environment.

Exhibit 6: Cost of the Fund under various claim rate scenarios

Claims	Entitlement	Scenario 1		Scenario 2	
		Percent	Cost	Percent	Cost
Level IX – Mesothelioma	$64 B	85%	$54 B	80%	$51 B
Level VIII – Lung cancer with asbestosis	$58 B	85%	$49 B	80%	$46 B
Level VII – Lung cancer with pleural markers	$102 B	70%	$71 B	50%	$51 B
Level VI – Other cancers	$55 B	70%	$39 B	50%	$28 B
Level II – V – Impaired Nonmalignant	$16 B	*	$16 B	*	$16 B
Administrative cost	$5 B		$5 B		$5 B
Total	**$300 B**		**$235 B**		**$203 B**

* Claiming rate implicit in estimation method.

If mesothelioma victims, lung cancer patients with underlying asbestosis, and individuals with impaired asbestosis were to file claims against the Fund at the same rate they have been filing in the tort environment, then more than 90 percent of the Level VI and Level VII claimants most forgo their entitlement in order for the Fund to be solvent.

Question 2:

Dr. Martin's claim that Bates White rejected standard estimation methods is incorrect. In fact, we followed the standard methodology used by Dr. Nicholson. We have, however, used more recent data and did not apply a tort-based claiming rate that would be inappropriate under an administrative system with different criteria than the tort system.

For malignant claims, we follow the standard methodology, as outlined by Dr. Nicholson, to first estimate the size of the candidate population. We estimate the candidate population using industrial hygiene studies that identify occupations with asbestos exposure and using government census and labor data that provide the number of individuals in these occupations. We then estimate the number of people who would develop one of the malignant conditions using incidence and epidemiological data. For lung and other cancers we also estimate the fraction of the population that will display pleural changes. We do not base our future claim-filing rate for Level VII lung cancers with pleural changes and Level VI other cancers on the historical tort claim-filing rate. Given that the standard for qualification and the incentives to file under the FAIR Act are different from the tort environment, this would be an inappropriate approach. Instead, we estimate the number of lung and other cancer patients who would satisfy the criteria outlined in the FAIR Act.

Question 3:

Please see our answer to Senator Leahy's Question 2 Part C for a description of how we account for the exposure requirements.

If we exclude the entire low exposure group, our low-end scenario decreases by $29 billion to $271 billion. This decrease is due to Level VII lung cancer with pleural markers and Level VI other cancers. If we also assume Level VIII lung cancer with asbestosis and Level IX mesothelioma patients in the low exposure group do not pass the individual review, the cost decreases further by $15 billion to $256 billion.

Question 4:

Dr. Martin is wrong when she claims that she corrected the biases in the medical articles we reviewed. What she has done is correct only for the bias that was useful for the position she is advocating and ignore the other, perhaps more important biases.

In fact, there are several biases in the studies that cause them to underestimate the prevalence of pleural abnormalities. First, most of the studies were conducted on relatively young workers. Since the development of pleural markers has a long latency period, their prevalence in a population increases as that population ages. Therefore, we expect the prevalence of pleural markers in the FAIR Act candidate population to be higher than indicated in the studies. Second, most of the studies use X-rays as their diagnostic tool. However, recent medical literature shows that X-rays are not able to detect the presence of all pleural abnormalities and that CT scans are more accurate. The FAIR Act allows the use of CT scans as a diagnostic tool. Therefore, we expect the diagnosis rate in the candidate population to be higher than indicated in the studies.

Neither the biases cited by Dr. Martin nor those listed above can be quantified precisely. In lieu of attempting to correct for all of these biases, we opted to specify a range for the likely prevalence of pleural abnormalities. That range is consistent with the medical literature. It conforms to Dr. Nicholson's (1982) estimates for the medium and high exposure occupations. For comparison, Nicholson calculated the prevalence of pleural abnormalities to be 56 percent for installation workers with tenure of at least 20 years, 54 percent for shipbuilding and repair workers, and 44 percent for workers in chemical plant and refinery maintenance. The prevalence of pleural abnormalities in other occupations scales down proportionately from these values depending on their relative exposure levels. Finally, the range is supported by the Manville audit data. In contrast, the "corrected" prevalence rates provided by Dr. Martin contradict both Dr. Nicholson's estimates and the Manville audit data.

Question 5:

We do not assume that barbers, beauticians, bus drivers, taxi drivers, parking attendants and other similar occupations will have a significant number of people who will make claims against the fund. The confusion is created by the distinction between inputs into our model and outputs from our model. We start our analysis with the occupations that are identified by industrial hygiene studies to have been subject to asbestos exposure. The occupations identified by these studies include occupations in which only some of the workers are exposed to a limited amount of asbestos. Accordingly, these occupations are marked as low exposure occupations. Barbers, beauticians, bus drivers, taxi drivers, and parking attendants are such low exposure occupations. Our computer model does not exclude these occupations as an input by prejudging them to have no exposure. In fact, several people in

these occupations will have mesothelioma and Level VIII lung cancer with asbestosis and will pass individual review. Therefore, our model includes these occupations as an input and assigns them the appropriate probabilities of developing malignant disease and pleural markers. Since these occupations are identified as low exposure they have low probabilities of meeting the criteria of the FAIR Act. For this reason, we assume the Trust administrator will not place them on the SOE list and hence the output from our computer model eliminates them. It is also worthwhile to note that the Manville Trust has paid some claimants in these occupations.

Question 6:

We did not use a turnover rate that is higher than that used by Dr. Nicholson. Dr. Nicholson's turnover rate and the turnover rate we used in our analysis are not measuring the same thing. Dr. Nicholson considers duration of employment in specific jobs. In contrast, we consider the lifetime duration of work in asbestos exposed occupations. Whereas Dr. Nicholson would count a construction worker who leaves his job to work at a shipyard as a turnover, we do not since both are classified as asbestos exposed occupations. Given that employment in any asbestos exposed occupation counts towards the substantial occupational criteria, Dr. Nicholson's job specific duration estimates are not appropriate for our analysis.

For reference, Dr. Nicholson estimated the average turnover for most jobs to be more than eight percent. We set lifetime turnover from asbestos exposed occupations to unexposed occupations at two percent. If we had used Dr. Nicholson's turnover rate, our estimates would have been much higher.

Question 7:

No. In our analysis, a barber, who started work in the 1970s does not have the same probability of qualifying as a Level VI other cancer with pleural marker or Level VII lung cancer with pleural marker claimant as compared to an insulator who worked in a shipyard during World War II. Since the barbers are identified as being at the low-end of the low exposure group we assume that the Trust administrator will not place them on the SOE list. Consequently, we assume that none of the barbers will qualify for Level VII and Level VI claims.

Question 8:

The main reason that more lung and other cancer claimants do not file with the Manville Trust is that the plaintiffs' attorneys do not recruit them on a mass scale. Plaintiffs' attorneys do not target lung and other cancer patients for recruitment because more profitable options are available. In particular, the most profitable form of recruitment is to target a large population of asbestos exposed workers and recruit all claimants in that population. This form of recruitment yields a large number of non-malignant claims, a few lung and other cancer claims, and almost no mesothelioma claims.[3]

Recruiters do not target lung and other cancer claimants because they are costly to recruit, their cases are hard to win, and there are limited trial dates to try their cases. Unlike nonmalignant claimants, lung and other cancer patients are very costly to recruit since recruiting a large number of cancer patients at union halls or work sites is not possible. Further, these claims are difficult to win in the tort environment because lung and other cancers lack the strong epidemiological link that mesothelioma has to asbestos. Other factors, such as smoking, are much more important risk factors for these cancers. For example, a jury is not likely to award a large asbestos claim to a smoker with lung cancer. More importantly, given the limited trial dates, plaintiffs' attorneys would rather try stronger mesothelioma cases. Lung and other cancer claimants can potentially file with the Manville Trust and other bankruptcy trusts to collect compensation; however, this compensation would amount to only several thousand dollars. This is not sufficient to make their recruitment economically profitable. In contrast, lung and other cancer claimants are entitled to hundreds of thousands of dollars under the FAIR Act and hence are much more likely to file claims even without plaintiffs' attorneys recruiting them. In fact, under the FAIR Act, Level VI and Level VII claimants are more likely to file claims with the help of hospitals than attorneys.

Question 9:

We have a long list of clients including Georgia Pacific, General Motors, EnPro, DuPont, United States Gypsum Company, Shell Oil, Exxon, Chevron, Conoco Phillips, AIG, Hartford, Liberty Mutual, Nationwide, Valero, Chubb Institute, Cooper Industries,

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[3] Typically, doctors advise mesothelioma patients to seek counsel at diagnosis.

Goodyear, American Standard Companies Inc., GAF Materials Corporation, Dana Corporation, Arvin Meritor, Rockwell Automation, and Audax.

Responses to Senator Specter's questions

Question 1:

We do not have a written contract with American Legislative Exchange Council. The companies that provided support for the funding are Shell Oil, Chubb Institute, AIG, Chevron, Conoco Phillips, Dupont, Exxon, Hartford, Nationwide, and Valero. Bates White, LLC charged $286,046 to prepare the analysis.

Question 2:

Please see our answer to Senator Leahy's Question 1.

Question 3:

We used the 2002 full extract and the 2005 electronic extract that we obtained from the Claims Resolution Management Corporation. These data represent the list of all claims ever filed against the Manville Trust. Data were provided as a text file.

Question 4:

Our methods to establish projected malignant claims under S.852 do not differ significantly from those methods that rely on the incidence of filings in the tort system. We follow the standard methodology, as outlined by Dr. Nicholson, to first estimate the size of the candidate population. We estimate the candidate population using industrial hygiene studies that identify occupations with asbestos exposure and using government census and labor data that provide the number of individuals in these occupations. We then estimate the number of people who would develop one of the malignant conditions using incidence and epidemiological data. For lung and other cancers we estimate the fraction of the population that will also display pleural changes. We do estimate claim-filing rates for Level VII lung cancers with pleural changes and Level VI other cancers from historical tort claim-filing rates. Given that the standards for qualification and incentives to file under the FAIR Act are

different from the tort environment, this would be an inappropriate approach. Instead, we estimate the number of lung and other cancer patients who would satisfy the criteria outlined in the FAIR Act. In fact, other projections of expenditures under S.852 have abandoned the traditional methodology. None of these studies identified the exposed population under S.852. More importantly, they did not forecast the number of qualified claimants (particularly for Levels VI and Level VII). Instead, they blindly extrapolated from the tort environment, which differs dramatically from a federally administered Trust.

It is not appropriate to compare our estimates of lung and other cancers with pleural changes with the projections made for bankruptcy trusts since the two estimates answer different questions. Projections made for bankruptcy trusts estimate the number of claims and the aggregate expenditure the company would have faced if the company were in the tort system. Our estimates do not attempt to estimate what would happen under the tort system because the FAIR Act has different criteria and incentives than the tort system.

Question 5:

Twenty-seven to 34 million individuals alive in 2000 worked in occupations and industries that industrial hygiene studies identified as having various levels of asbestos exposure. This statement should not be misinterpreted to mean that 27 to 34 million individuals alive in 2000 satisfy the FAIR Act exposure criteria. For a description of occupations that fall into each exposure group, please see our answer to Senator Leahy's Question 1 Part A. In our study we control for the substantial occupational exposure criteria in several ways. Please see our answer to Senator Leahy's Question 2 Part C for a description of how we account for the exposure requirements.

Question 6:

Please see our answer to Senator Leahy's Question 2 Part C for a general review of how we account for the substantial occupational exposure (SOE) criteria.

A- We do not assume that a worker who joined the work force in 1975 has the same weighted years of exposure as a worker who joined the workforce in 1950. In contrast, we assume that workers who joined the workforce in 1975 have substantially less exposure than those that joined in 1950.

B- This question is not relevant given our answer to Part A. However, the question illustrates the confusion by NERA, CBO, and others with regard to the SOE criteria. NERA and CBO confuse the average duration of exposure on a given job with the average duration of exposure over an individual's career. Although the majority of jobs last less than three years, the typical career exceeds 20 years. Due to this confusion, NERA and CBO erroneously conclude that the weighted work-year exposure criteria would eliminate a significant portion of otherwise qualified claimants.

C- Not applicable.

Responses to Senator Biden's questions

Question 1:

We were not provided with the data that the drafters of this bill used in coming up with the figure of $140 billion. Although no analysis has identified any flaws in our analysis so far, this data would be useful to crystallize the differences between our study and the estimates used by the drafters of this bill.

BATES•WHITE

Memorandum

To	United States Judiciary Committee
From	Charles E. Bates, PhD
Date	February 1, 2006
Re	Response to question from Senator Graham

Response to Senator Graham's question

Question 1:

In response to the first portion of the question, I do not have an opinion as to whether or not different treatment of citizens from different vermiculite sites is justified. We did not study this issue in our work on S.852.

In response to the second portion of your question, my analysis shows that even without any compensation going to citizens living in proximity to vermiculite sites, the Trust Fund is insolvent. The FAIR Act would create entitlements in excess of $300 billion, which substantially exceed the $140 billion in proposed funding. Including the vermiculite sites would only exacerbate this shortfall.

Furthermore, many of the potential vermiculite sites have large populations. Given the magnitude of the populations surrounding many of the potential vermiculite sites, the costs of the entitlements created outside of Libby would dwarf the costs of the entitlements created for Libby. I am not aware of any studies that provide an actual assessment of the costs that would be associated with these potential vermiculite sites. However, because of the combination of population size of these locals, background cancer incidence rates, and the payment levels specified in the trust, the costs clearly would be substantial.

Finally, in its report on the FAIR Act, the CBO assigns zero cost to the compensation of claims from Libby or any of the other vermiculate sites. Under any reasonable assumptions, the likely cost of the potential entitlement associated with vermiculate sites would be substantial. Clearly CBO's approach is not appropriate in a report that portrays itself as a "cost estimate" of the FAIR Act, as it assigns zero cost to this and other risk factors that have substantial cost.

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Mark Lederer
Responses to Written Questions from the
Senate Committee on the Judiciary

December 22, 2005

Dear Senators:

Following are responses to your written questions, which Senator Specter forwarded to me by letter dated December 5, 2005. I have addressed what I understand to be the issues raised in your questions. Please let me know if I have misunderstood your questions or if further information or clarification is needed.

The numbers provided in these responses are based upon Manville Trust claim filings through November 30, 2005. They will differ slightly from numbers I provided in my testimony before the Committee on November 17, 2005, which were current through September 30, 2005. Also, the numbers I provide here exclude Manville Trust claims based on alleged exposure to asbestos occurring outside the U.S., as it is my understanding that S. 852 would not compensate claimants with foreign exposure.

Questions of Senator Richard J. Durbin

1. *To your knowledge, has any asbestos trust experienced only a 15% qualification rate among non-malignant claims?*

ANSWER: I do not know of any asbestos trust that has determined to be compensable only 15% of the claims it receives. Most claims submitted to the Manville Personal Injury Settlement Trust ("Manville Trust"), which I serve as Chief Financial Officer, are compensated.

The Manville Trust has kept meaningful records of the number of non-qualifying claims only since 2002. In earlier years, it counted the submission of any claim, even an incomplete or duplicate claim, as a "filed claim," leading to a high, but misleading non-qualification rate. For example, many incomplete claims were never completed. Since 2002, the Manville Trust has prevented the filing of incomplete and duplicate claims and has maintained records indicating how many filed and perfected claims have been withdrawn either because they lacked value or for any other reason. From the beginning of 2002 through November 30, 2005, a total of 181,155 claims with U.S. exposure were filed of which 3,242 (2%) were subsequently withdrawn. Of the remaining claims, only about 4% were evaluated as currently having no value, but have not yet been withdrawn.

It is not surprising that so few claims are disqualified, because most claims are filed by law firms that are experts in the filing of asbestos personal injury claims. As described in my written testimony, since 1995 the Manville Trust has resolved claims pursuant to a Trust Distribution Process ("TDP"), which sets forth a schedule of

compensable asbestos-related diseases and values that is comparable to the claim valuation method described in S. 852. The law firms that file asbestos personal injury claims are very familiar with the TDP criteria, and they quite rationally tend only to file claims that they reasonably believe will meet the criteria and receive compensation. I cannot speak for other asbestos trusts, but I would be surprised if their recent experience was significantly different.

My answer to the next question estimates the percentage of Manville Trust non-malignancy claims that are likely to qualify for Level II or higher compensation under the proposed national Trust Fund.

2. Based on your expert opinion, what is the chance that 20% of the nonmalignant claims will qualify for any payment under the Trust Fund? How about 25%?

ANSWER: I cannot estimate the percentage of non-malignancy claims that will be submitted and will qualify for compensation at disease Levels II and higher under the national Trust Fund, because it is uncertain whether the same mix of individuals will submit claims to the national Trust Fund as claim in the current system. I can, however, provide a rough estimate of the percentage of historic and projected Manville Trust non-malignancy claims that likely would receive such compensation were they filed with the national Trust Fund.

The criteria for compensation of non-malignancy claims by the Trust Fund established by S. 852 are somewhat different than the Manville Trust TDP criteria. The Manville Trust compensates claimants who do not suffer pulmonary impairment and who did not experience Substantial Occupational Exposure to asbestos ("SOE"), while such claimants would be ineligible for payment by the national Trust Fund other than possible reimbursement for medical monitoring expenses. More than 330,000 unimpaired U.S. claimants have received compensation averaging about $1,700 from the Manville Trust. Further, S. 852 compensates as "impaired" a class of individuals with an obstructive component to their pulmonary disability (disease Level II) that the Manville Trust does not compensate as impaired under its current payment plan, the 2002 Manville TDP. Almost all Manville Trust claimants are represented by counsel, whose fees are capped under the TDP at 25% of the value of the award, while S. 852 would cap attorneys' fees at 5%.

Therefore, there are different incentives to file claims on behalf of unimpaired individuals with the Manville Trust and with the national Trust Fund. It is uncertain if unimpaired claimants, eligible at most for medical monitoring reimbursement, would file claims with the national Trust Fund in large numbers as they do with the Manville Trust. Because it is unknown how many unimpaired individuals would file claims, it is impossible to estimate what percentage of individuals with non-malignant diseases who would submit claims with the national Trust Fund would qualify for payment under disease Levels II and higher.

However, I can provide a rough estimate of the percentage of historic and projected Manville Trust non-malignancy claimants who would qualify for compensation under the national Trust Fund. There are some differences in the exposure and medical criteria for asbestos-related pulmonary impairment and SOE, so some claimants who the Manville Trust compensates as impaired still may not qualify for payment under the national Trust Fund. However, those differences do not appear to be particularly large. Absent those differences, of the approximately 27,000 non-malignancy claims filed through November 30, 2005 pursuant to the 2002 TDP, about 4,400 or 16% might qualify for a payment other than for medical monitoring from the national Trust Fund. Tillinghast's[1] point forecast of Manville claims projects a higher, nearly 20% proportion of impaired non-malignancy claimants to all non-malignancy U.S. claimants, but with the plausible range extending somewhat below 10% and above 30%. This uncertainty is magnified by the differences between the Manville criteria and those contained in S.852 as noted above. Whether this Manville experience is any more than indicative of what might be filed under the national Trust Fund is difficult to assess.

3. *According to the most recent forecasts prepared by Tillinghast for the Manville Trust, how many current and future mesothelioma claims do you believe are projected?*

ANSWER: Since the inception of the Manville Trust in 1988 through November 30, 2005, 33,799 mesothelioma claims have been filed, of which 27,784 claims alleged exposure within the U.S. The forecasts of U.S. mesothelioma claims by Tillinghast are between 34,400 and 45,232 claims to be filed from January 1, 2006 through December 31, 2054, with a point estimate of 40,215 mesothelioma claims.

4. *How have Manville's experiences dealing with actual claims compared with the 2001 "ARPC" claims projections?*

ANSWER: The Manville Trust has received significantly fewer claims since 2001 than ARPC projected it would. The filing of cancer claims, however, has been closer to the projected level than has the filing of non-cancer claims, with the filing of mesothelioma and "other cancer" claims especially close to the projections.

ARPC forecast between 192,000 and 456,472 claims would be filed between 2001 through 2005 with a point estimate of 336,073 claims. Because no material number of foreign claims was filed with the Manville Trust between 1992 and 2001, there is no material number of foreign claims in the ARPC projections. The comparable, actual U.S. filings with the Manville Trust during this period are 264,648 claims, or 71,425 (21%) fewer than projected.[2] ARPC projected 30,663 cancer claims during this period versus 27,700 actual U.S. filings. Thus, actual filings of cancer claims

[1] As described in my testimony, the Tillinghast business of Towers, Perrin, Forster & Crosby, Inc. doing business as Towers Perrin ("Tillinghast") completed an actuarial analysis of future asbestos claims experience of the Manville Trust in 2005.
[2] Actual claim filings for 2005 are annualized based on the first 11 months of 2005.

were only 2,963 (10%) fewer than projected. A more detailed comparison follows in Table 1 and Charts 1 and 2.

Some of the difference between forecast and actual filings can be explained by the amendment of the original 1995 TDP in 2002, resulting in significantly lower Scheduled Values and more stringent criteria for non-cancer claims. In addition, SOE was now required for any lung cancer or other cancer claim to receive a scheduled value offer other than a minimal $600 cash discount payment. The deadline to file claims pursuant to the more generous 1995 TDP was in October, 2003. As a consequence, large numbers of claims were filed in advance of the deadline, including mesothelioma claims even though their Scheduled Value was substantially increased by the amendment. So claim filings were accelerated into 2003 in order to meet the deadline, with a substantial reduction in the years immediately following the surge.

The rate of cancer claims filings generally has recovered from the 2003 peak and subsequent trough; whereas non-cancer claims filings continue to substantially lag forecasts. Various factors may have contributed to the lowering of the non-cancer claims filings rate. In addition to the amended TDP criteria and Scheduled Values, it is likely that the uncertainty surrounding federal legislation and the delay in emergence of many new asbestos bankruptcy trusts have at least temporarily decreased the incentive to law firms to search for non-cancer claimants. Those uncertainties, combined with recent scrutiny of medical screening methods, have apparently greatly diminished all medical screening for prospective claimants, historically the source of most non-cancer claims. The degree to which medical screening will revive and non-cancer claims filings will rebound from their current low level is uncertain.

Lung cancer claims filings have deviated from the 2001 ARPC projections more than mesothelioma and "other" cancer claims filings. ARPC projected 16,714 lung cancer claims during the 2001-2005 period, while only 13,514 were filed, or 3,200 (19%) fewer than projected. This may be related to the imposition for the first time with the 2002 TDP of a five year SOE requirement for lung cancer claims to receive a Scheduled Value settlement offer other than a minimal $600 cash discount payment. The medical criteria of S. 852 would impose a similar but longer duration SOE requirement for all lung cancer claims. It is uncertain whether the SOE requirement would have the same effect of suppressing lung cancer claims under the proposed national Trust Fund as it appears to have had with the Manville Trust.

5. *How many mesothelioma claims have you received since January 1, 2003?*

ANSWER: From January 1, 2003 through November 30, 2005, 9,901 mesothelioma claims have been filed with the Manville Trust, of which 6,532 alleged their exposure occurred within the U.S. and 3,369 alleged their exposure occurred outside the U.S.

Questions of Senator John Cornyn

1. *In your testimony, you testified that "The Manville Trust's track record for accurately projecting claims is decidedly mixed." One of the most important purposes of this hearing was to analyze a competing view of valuing the Trust Fund – that of Bates and White. If, per your testimony, it is true that historically, predicting claims on the basis of Manville data and/or other Trust fund data has proved to be difficult at best, why would a valuation of the Trust Fund based on previous claims with Manville be any more – or even AS – reliable as the methodology offered by Bates and White?*

ANSWER: My long experience with reviewing forecasts of Manville claims has been mixed in the sense that there have been failures as well as successes, with the success occurring since 2001. The initial estimate in the Disclosure Statement to the Manville Corporation Plan of Reorganization (83,000 to 100,000 claims over the life of the Trust) and the subsequent projections on behalf of the Manville Trust until 2001 were far too low, with disastrous consequences for the beneficiaries, whose claims fell in value from 100 cents to only 5 cents on the dollar. However, even the earliest record shows that mesothelioma and lung cancer claims, where accepted dose response models exist, are easier to project than non-cancer claims, where there are no accepted dose response models, generally no or very modest impairment, and changing medical criteria and Scheduled Values.

With refinements derived through years of experience, the claims projections methods used for the Manville Trust provide a reasonable basis for financial planning by that Trust. The projections performed for the Manville Trust were not designed to forecast claims under a single national trust fund. As I stated in my testimony before the Committee, I am not questioning the methodology used by Bates White. Others have greater expertise than I regarding the methodology of claims projections. I do, however, consider it useful to examine Bates White's projection of lung cancer claims against the Manville Trust's claims filing history.

If the population of eligible lung cancer claimants is as large as Bates White concludes, why did so many of them fail to file claims in the past? If anything, the recent imposition of the SOE requirement has resulted in fewer, not more lung cancer claims than previously forecast. While a substantial increase in compensation delivered by an efficient single payor system would potentially result in a higher propensity to file such claims, I have seen no hard evidence that the proposed awards are significantly higher than historic net recoveries from all defendants, or that substantial numbers of claimants were unable to resolve their claims except through trial verdicts. Unlike the projections put forward by Bates White, the Manville projections can be reconciled to historical results.

2. *I believe that at the hearing, you testified that the average historic pay-out for "other cancers" was approximately $4500. Specifically, what has been, historically, the average pay-out to cancer victims in the Manville Trust? Can*

you provide that information with respect to Level 6 ("other cancers") and Level 7 ("lung cancers").

ANSWER: As you are aware, there is a great disparity between the full liquidated value of Manville Trust claims, which is the amount the Trust would pay if its funds were not limited, and the Trust's actual payment amounts, which are made on a pro rata payment percentage basis. Claim payments by the Manville Trust are principally a function of the claimants' disease, which determines the liquidated value of their claims, and the payment percentage to be applied to those liquidated values. The earliest claims ("Pre TDP" claims) were paid 100% or close to 100% of their negotiated liquidated values, but after the Manville Trust was declared a Limited Fund in 1990, all subsequent claims (1995 and 2002 TDP claims) received substantially less, generally 5% to 10% of their claims' liquidated values. In addition, although 1995 and 2002 TDP claimants retained the right have their claims individually evaluated, in practice most claimants elected to accept the Scheduled Values for their claims (see Table 2).

The average pay-outs reported in Table 3 reflect the changing disease mix and pro rata percentage payments over time for settled claimants exposed in the U.S. Table 3 excludes over 12,000 resolved claims on behalf of persons exposed outside the U.S. that were paid over $58 million. Because of the confounding influence of the pro rata payment percentage, average pay-outs can be counterintuitive, such as declining average pay-outs on mesothelioma claims, whereas average liquidated values are much more representative of the relative value of claims over time. It is also worth noting that the broad "summary" injuries reported in Table 3 incorporate multiple disease categories or levels whose detailed criteria have changed over time. The shifting mix of claims within these summary injuries will impact both the average pay-out and liquidated value. For example, the decline in the average liquidated value for lung cancers is principally due to the 2002 TDP requirement for SOE and underlying asbestos-related disease, resulting in fewer claims meeting the criteria for the higher valued lung cancer Manville Level 7 and more lung cancer claims in lower valued Manville Level 6 and Manville Level 1.

It is important to note that these figures represent only the amount that claimants receive in compensation from the Manville Trust, which is likely to be a small fraction of their total compensation. As I explained in my testimony on November 17, people rarely file claims solely against the Manville Trust. A major study of asbestos litigation by the RAND Institute for Civil Justice found that "the typical asbestos claimant receives compensation from dozens or more defendants ...."[3] Although most of these defendants remain in the tort system and are subject to lawsuit, nearly all of this compensation is obtained without the stress and expense of trial. As the RAND report described it: "In asbestos litigation, individualized process is a myth. Most cases are settled, many according to standardized agreements negotiated by defendants and plaintiff attorneys to apply to what attorneys

[3] Stephen J. Carroll, et al., Asbestos Litigation, (RAND, Institute for Civil Justice, 2005), at p. 128 (accessible at www.rand.org/icj/).

conventionally refer to as their 'inventories' of cases. Under such agreements, all cases against some defendants may be settled for a flat fee, while cases against other defendants will be sorted into a 'matrix' of claims, according to a few distinguishing characteristics, and paid the values associated with the different matrix cells. Bankruptcy personal injury trusts, which will pay an increasing share of asbestos compensation in the future, institutionalize this administrative compensation process for asbestos claims."[4] This may have changed some in the past few years, but it comports with our understanding of the overall compensation environment for much of the Manville Trust's history.

3. *Some questions have been raised with respect to the value we should place on testimony, valuations or presentations given certain "biases" that may exist based on who may be paying for services. Just so we can be clear, can you please provide for the Committee a list of clients for whom you or your employer have provided services with regard to Asbestos, a list of any organizations for whom you have performed work pro bono with respect to Asbestos – and specifically any information about the nature of your work or the work of your employer in the past with respect to Asbestos projections, assessments, valuations or any related work?*

ANSWER: I have not worked on asbestos-related matters for any client or employer other than the Manville Trust, for which I have worked since 1988.

In 1998, the Manville Trust formed a wholly-owned subsidiary corporation, Claims Resolution Management Corporation ("CRMC") to provide the Manville Trust with claim processing and other services. Prior to 1999, the Manville Trust provided its own claim processing and settlement services. CRMC also processes asbestos claims and performs services for other asbestos trusts. Specifically, for many years the Manville Trust and then CRMC have provided claim processing services for the PACOR Trust, a trust that resolves the asbestos personal injury liabilities of a Manville product distributor in the Philadelphia area. Further, CRMC administers an alternative dispute resolution program for the Eagle-Picher Personal Injury Settlement Trust. CRMC was selected as the claims processing facility for the PLI (Prudential Lines, Inc.) Disbursement Trust, although processing of PLI claims has been interrupted by insurance litigation; and CRMC was selected to serve as Administrator for settlement funds established by the Travelers Indemnity Company relating to direct action asbestos personal injury claims against Travelers. During 2005, CRMC President David Austern served as arbitrator to resolve disputes regarding pre-petition claims for the DII Industries, LLC (Halliburton) Asbestos PI Trust. Mr. Austern currently serves as the legal representative for future claimants in the pending Combustion Engineering and W.R. Grace bankruptcies. CRMC also licenses Manville Trust data that is used by consultants in performing asbestos claims projections and liability assessments. However, neither I nor the Manville Trust nor

[4] *Id.* at p. 129. Trial of asbestos personal injury claims is so rare, in fact, that for the period from January 1, 1993 to 2001, the RAND investigators could identify only 526 reported trials that delivered verdicts on 1,570 plaintiffs' claims. *Id.* at p. 49. During the same period, hundreds of thousands of claims were filed.

CRMC nor Mr. Austern provide asbestos future claims projections, assessments, valuations, or similar work for other parties.

Questions of Senator Joseph R. Biden, Jr.

1. *David Austern testified on September 25, 2002 that the trust is currently compensating those exposed in the 1950s and 60s. Since peak usage did not occur until the mid-1970s, he anticipated claims would continue to increase for the next 10-15 years. Do you agree with Mr. Austern? Doesn't this experience of the Manville trust demonstrate that deaths from asbestos disease have not peaked, but will continue to rise?*

ANSWER: David Austern, my colleague since 1988, currently serves as General Counsel of the Manville Trust, as well as President of CRMC (*See* response to question 3 from Senator Cornyn above). I certainly agree with him that the Manville Trust is currently compensating claimants exposed to asbestos in the 1950s and 1960s. I provided the Committee with a packet of material distributed at the November 17, 2005 hearing that included a Powerpoint presentation I made titled "Asbestos: The Times They Are A-Changin?" A graph at page 25 of that presentation shows that the average year of first exposure among Manville Trust claimants is now approximately 1960. It is also true that the peak year of asbestos consumption in the U.S. was 1973, after which it fell sharply and quickly. That does not necessarily mean, however, that asbestos deaths will continue to rise. While I am neither an epidemiologist nor an industrial hygiene expert, my colleagues and I have looked into the question of when asbestos-related disease incidence is likely to peak. Following is a discussion of some of what we have found.

While the peak of asbestos *consumption* was in 1973, the peak of *exposure* was probably at least several years earlier. Information about the dangers of occupational exposure to asbestos became better known by the mid-1960s through the efforts of Dr. Irving Selikoff and his colleagues. While still too high, exposure levels at some of the worst worksites dropped sharply as this information became known and federal regulations limited exposure levels beginning in 1971. Thus, unlike industrial and construction workers in earlier cohorts, workers first exposed to asbestos in the mid-1960s likely would have experienced only a few years of heavy exposure followed by a sharp drop. The asbestos-related disease incidence rate for this group and those that followed should reflect their lower cumulative exposure. Indeed, the most recent few years of government mortality data show death rates for asbestosis and mesothelioma to be relatively flat. While we will not know that peak asbestos-related mortality has occurred until after death rates have dropped, this suggests that we may have reached the plateau. This is not surprising, now nearly 40 years after the peak of exposure. In this regard, it is worth noting that Mr. Austern's 2002 testimony came a year after the Manville Trust received a projection of 1.4 million additional claims, and possibly more. Experience since then suggests that forecast was too high. As described in detail in my written testimony, the Trust's latest forecast, performed in 2005, is

significantly lower. Both the 2001 and 2005 forecasts agree, however, that we are at or near the peak of asbestos claims filings now, and the Manville Trust has relied on this conclusion in managing its assets and in calculating the level of payments it is able to make. The proposed national Trust Fund would not compensate unimpaired claimants as the Manville Trust does. One would expect even fewer of the later-exposed individuals, who received lower cumulative exposures than their predecessors, to be sufficiently injured to meet the stricter criteria of the national Trust Fund. Following are some additional details on the subject of when asbestos-related diseases might peak in the U.S.

Asbestos Consumption Levels

An authoritative U.S. Geological Survey report shows that U.S. asbestos consumption peaked in 1973 at 803,000 metric tons, and began a stunning decline beginning in 1974.[5] By 1980, U.S. asbestos consumption was already down to 356,000 metric tons, well less than half of what it had been at its peak only seven years earlier.[6]

The USGS report shows that asbestos consumption dropped far more quickly and sharply in the U.S. than in the rest of the world. In 1990, world asbestos production was 4,010,000 metric tons, still nearly 80% of its 1975 peak of 5,090,000.[7] In that same year, 1990, U.S. asbestos consumption was 41,000 metric tons, only 5% of its 803,000 metric ton peak seventeen years earlier in 1973.[8] By 2000, world production was still 40% of its peak, while U.S. consumption had dropped to 14,600 metric tons, less than 2% of what it had been in 1973.[9]

Declining Exposure Levels

As the work of Dr. Irving Selikoff and his colleagues establishing the danger of asbestos exposure to end-use workers became known in the mid-1960s, and as asbestos-containing products began to be marked with explicit warnings, exposure levels declined at some of the highest exposure work places and among some of the most highly exposed workers, through a combination of engineering controls and increased use of respirators.[10]

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[5] R.L. Virta, *Worldwide Asbestos Supply and Consumption Trends from 1900 to 2000,* Open-File Report 03-83, U.S. Department of the Interior, U.S. Geological Survey, 2003 at p. 22, Table 2 (accessible at http://minerals.usgs.gov/minerals/pubs/commodity/asbestos/).

[6] *Id.*

[7] *Id.*

[8] *Id.* The faster and sharper decline in asbestos consumption in the U.S. compared to elsewhere probably reflects the effectiveness of the U.S. tort system in deterring dangerous conduct. 1973 was the year of the Borel v. Fibreboard decision, in which a U.S. Court of Appeals upheld an asbestos personal injury judgment against asbestos manufacturers for the first time. The effect on U.S. asbestos consumption was immediate and striking. Industrialized countries with less active tort systems saw declines in asbestos use that was later and more gradual. Had asbestos consumption declined as slowly in the U.S. as elsewhere, the total number of American workers killed by asbestos-related diseases would have been thousands more. Today, although other industrialized countries have stopped or minimized use of asbestos, asbestos use remains high in developing countries. The rapid decline of asbestos use in U.S. manufacturing facilities, therefore, must be counted as one of the signal achievements of the vigorous U.S. tort system.

[9] *Id.*

[10] *See, e.g.,* Herbert Seidman and Irving J. Selikoff, *Decline in Death Rates among Asbestos Insulation Workers 1967-1986 Associated with Diminution of Work Exposure to Asbestos,* Ann. N.Y. Acad. Sci. 1990; 600: 300-17. "Initial data concerning risk of asbestos-associated disease among members of this

A noteworthy event that exemplifies the move to limit asbestos exposure levels is the sudden termination of use of sprayed-on asbestos fireproofing part way through the construction of the World Trade Center in New York. Sprayed-on asbestos fireproofing was an especially pernicious form of asbestos exposure, indiscriminately causing high levels of exposure to all workers on the worksite from a wide range of construction trades, not only to those applying the material. Sprayed-on asbestos fireproofing was applied to structural elements up to the 39th floor of the first of the two World Trade Center towers to be built (WTC 1). This was abruptly stopped, and asbestos-free materials were used for the remainder of WTC 1 and throughout WTC 2.[11] Steel construction on WTC 1 began in August 1968, and first tenant occupancy was in December 1970, so the cessation of asbestos spray-on fireproofing use in the project occurred between 1968 and 1970.[12]

Beginning in the early 1970s, asbestos exposure levels began dropping more uniformly, as the government imposed exposure limits. In May 1971, OSHA issued its first asbestos standard, setting a Permissible Exposure Limit (PEL) of 12 fibers per cubic centimeter (f/cc). Seven months later, in December 1971, the PEL was more than halved, to 5 f/cc time-weighted average over eight hours, with a peak level of 10 f/cc. These exposure levels are far lower than levels that had been experienced in earlier decades by insulators, and by various workers at high exposure worksites such as shipyards. Effective July 1976, the PEL was more than halved once again, to 2 f/cc time-weighted average over eight hours.[13]

Measurements of asbestos dust concentrations by NIOSH and others confirmed dramatic cuts in exposure levels during the early 1970s at some of the highest-exposure worksites. A seminal article by William J. Nicholson and colleagues found person-weighted average exposure of approximately 25 fibers per milliliter[14] (f/ml) between 1945 and 1965 in primary asbestos manufacturing facilities. It reported NIOSH measurements of concentrations of 35 f/ml at two specific facilities between 1968 and 1971. By 1975, levels of from 0.5 to 4.0 f/ml were found to characterize most primary manufacturing processes,

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[insulators'] union were reported in 1964. Over the next years, industrial hygiene measures intended to decrease work exposure to asbestos began to be instituted by the union members themselves, by the newly established Occupational Safety and Health Administration (OSHA), which provided an asbestos exposure standard in 1972, and by manufacturers, who removed asbestos from new insulation materials in 1972-1973. Thus, by the mid-1970s, there was reduction of asbestos exposure during insulation work ...."

[11] Federal Emergency Management Agency, *World Trade Center Building Performance Study: Data Collection, Preliminary Observations, and Recommendations,* FEMA 403/May 2002, at p. 2-12 (available at www.fema.gov/library/wtcstudy.shtm).

[12] *Id.* at p. 2-1.

[13] U.S. Department of Labor, Occupational Safety and Health Administration, Asbestos (Amended Final Rule, August 1994), Section 1-I, Regulatory History, accessible at www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=preambles&p_id=775&p_text_version=false.

[14] A milliliter, or 1/1,000 liter, is equal to a cubic centimeter. The Columbia Encyclopedia, Sixth ed. 2001, Common Weights and Measures (Table), accessible at www.bartleby.com. Measurements of f/cc and f/ml are therefore comparable.

with most "typical" exposures at the lower end of that range.[15] Nicholson and his colleagues estimated that exposure levels in the years 1972-1979 were a fraction of what they had been in prior years in heavy exposure industries such as primary asbestos manufacturing, insulation work, shipbuilding, and utilities, reflecting the adoption of control measures.[16] Even these reduced levels of exposure are too high and will lead to illness, but not at the rate of the enormous exposure levels of earlier years.

Possible Effects of Lower Exposures

Because U.S. asbestos consumption dropped sharply after 1973, and because exposure levels by 1972 or earlier were far lower than they had been previously, workers with first exposure to asbestos in the early 1970s generally experienced exposures lower in both intensity and duration than their predecessors. It is unlikely that these workers will represent the peak of asbestos-related mortality.

Even workers first exposed to asbestos in the middle 1960s would have experienced a shorter duration of exposure than their predecessors. Their intensity of exposure, even if high at first, would have declined soon as well. While it is likely that not every employer immediately obeyed the OSHA asbestos limits, relatively few workers first exposed to asbestos from the middle 1960s onwards should have experienced long careers of heavy asbestos exposure.

A February 2005 article in the British Journal of Cancer supports the conclusion that asbestos-related mortality rates will decline as we reach a population first exposed in the 1960s and early 1970s. The article is *"The Expected Burden of Mesothelioma Mortality in Great Britain from 2002 to 2050,"* by J.T. Hodgson, D.M. McElvenney, A.J. Darnton, M.J. Price, and J. Peto. The last author, Julian Peto, is among the most recognized world experts in asbestos mortality projections. The article is freely available at the journal's web site, www.nature.com/bjc/index.html.

The article projects that mesothelioma deaths will peak in the U.K. between 2011 and 2015, reflecting the sharp decline in exposure that occurred there beginning in 1980. (Among those countries with a less vigorous tort system than the U.S. – see note 8 above – exposure levels in the U.K. apparently did not begin to decline until 1980, nine years after OSHA first implemented exposure limits in the U.S.) Previous estimates, that did not take into account the decline in exposure levels, projected a U.K. peak at higher levels of deaths, and not until 2020.

A news release published along with the February article succinctly summarizes the authors' main findings.[17] It reads, in part:

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[15] William J. Nicholson, George Perkel, and Irving J. Selikoff, *Occupational Exposure to Asbestos: Population at Risk and Projected Mortality – 1980-2030,* Am. J. Industrial Med., 3:259-311 (1982), at pp. 260-62.

[16] *Id.* at p. 285 and Table XVII, p. 287.

[17] http://i-newswire.com/pr7487.html.

"Professor Peto says: 'The peak in mesothelioma deaths will be earlier and at a lower number than formerly thought. The abrupt reduction in asbestos exposure in 1980 has altered the lifelong patterns of exposure that people have experienced. This makes the previous age-related models inaccurate. Our new model for predicting mesothelioma mortality rates is more complex and takes account of the varying exposure to asbestos of different age groups at different times of their lives. For example, *men born around 1920 who entered the construction industry would have had an increasing level of exposure to asbestos throughout their career. But for men born around 1950 the pattern of exposure would have been completely different. Early in their career, exposure would have been higher than in earlier generations, but their exposure would have abruptly dropped at about the age of 30 when asbestos use virtually ceased.* Mortality from mesothelioma in younger men has already been observed to be lower than in previous generations, which adds weight to the accuracy of the new model. However, uncertainties remain as to the future of mesothelioma mortality beyond 2020.'" (Emphasis added.)

We should expect the same phenomenon in the U.S., but with earlier years reflecting the earlier decline here in asbestos exposure levels.

Stable Mortality Figures After 2000

While we will not know that the peak has occurred until after rates of disease decline, the latest available asbestos-related mortality figures from the National Center for Health Statistics of the CDC suggest that we may be at or near a plateau.

Government figures show asbestosis and mesothelioma mortality relatively stable for 2000 through 2002, the latest three years available in final form.[18] Although not yet published, NCHS provided us with preliminary underlying cause of death figures for 2003 for asbestosis (583 cases) and mesothelioma (2,418 cases).[19] This represents a small rise in 2003 for asbestosis mortality over the previous year and a small drop for mesothelioma.

Thus, it remains unclear if peak asbestos-related mortality has arrived yet. If it has not yet arrived, the evidence suggests that it should soon. The history of asbestos exposures in the U.S. suggests that asbestos deaths will not continue rising for much longer, if at all.

2. *According to the Manville Trust claims data, 2003 was a record year for claims, with a sharp drop off in 2004, followed by a considerable increase in 2005. Doesn't this claims history indicate that it is speculation to state that the number of victims is declining?*

[18] National Center for Health Statistics, Health, United States, 2005, at p. 227, Table 48 (available at www.cdc.gov/nchs/hus.htm).

[19] CDC/NCHS, National Vital Statistics System, Preliminary Mortality Data for 2003 (these preliminary figures may change before they become final).

ANSWER: I agree that variations in Manville Trust claims filings are an insufficient basis for establishing changes in the incidence of asbestos-related disease. That is why the Manville Trust and those it commissions to project claims look at trends in underlying litigation against all defendants and diagnosis dates as well as government statistics on the incidence of such diseases and other information. *See* my answer to the previous question. Nor do we expect to see a sudden sharp drop off in asbestos-related diseases. The projections we have commissioned suggest that asbestos disease rates will reach a plateau for several years before beginning a long, but accelerating decline followed by a long period of modest filings. As stated above, we will not know for certain whether we have reached the expected plateau until it has clearly passed. It appears that we recently reached the plateau, but a couple of years of claiming data should more firmly establish that this indeed as occurred in the U.S.

Please note that by concluding that we may have reached the peak of asbestos-related disease incidence, I am not saying that we are anywhere near the end of claims. For example, as stated in my answer above to question 3 from Senator Durbin, the Manville Trust has received 27,784 mesothelioma claims alleging U.S. exposure since its inception in 1988, and expects 34,400 to 45,232 more between January 1, 2006 and December 31, 2054, with a point estimate of 40,215 more U.S. mesothelioma claims. That is, the Manville Trust has not yet received even *half* of the total number of mesothelioma claims it expects to receive. The incidence rate of new cases may have stopped increasing, but there remain many more yet to come.

To the extent that what constitutes an asbestos-related disease is redefined, different patterns may emerge. This is most unlikely with respect to mesothelioma and severe asbestosis where the criteria have been well defined and accepted for many years. However, such claims are only a small fraction of all claimed asbestos-related diseases. The recent adoption of more restrictive definitions, including the requirement for SOE, more stringent pulmonary function tests and, in the case of cancers, underlying non-malignant disease, might lead to an abrupt downward shift in claims. This would explain part of the sudden decline in Manville claim filing. How large a part is difficult to judge given all the uncertainty generated by the ongoing state and federal legislative deliberations, bankruptcy proceedings, and investigations into medical screening practices, particularly as these events may be equally if not more responsible for today's low rate of filing claims. For these reasons, prudence dictates a cautious approach in interpreting filing data.

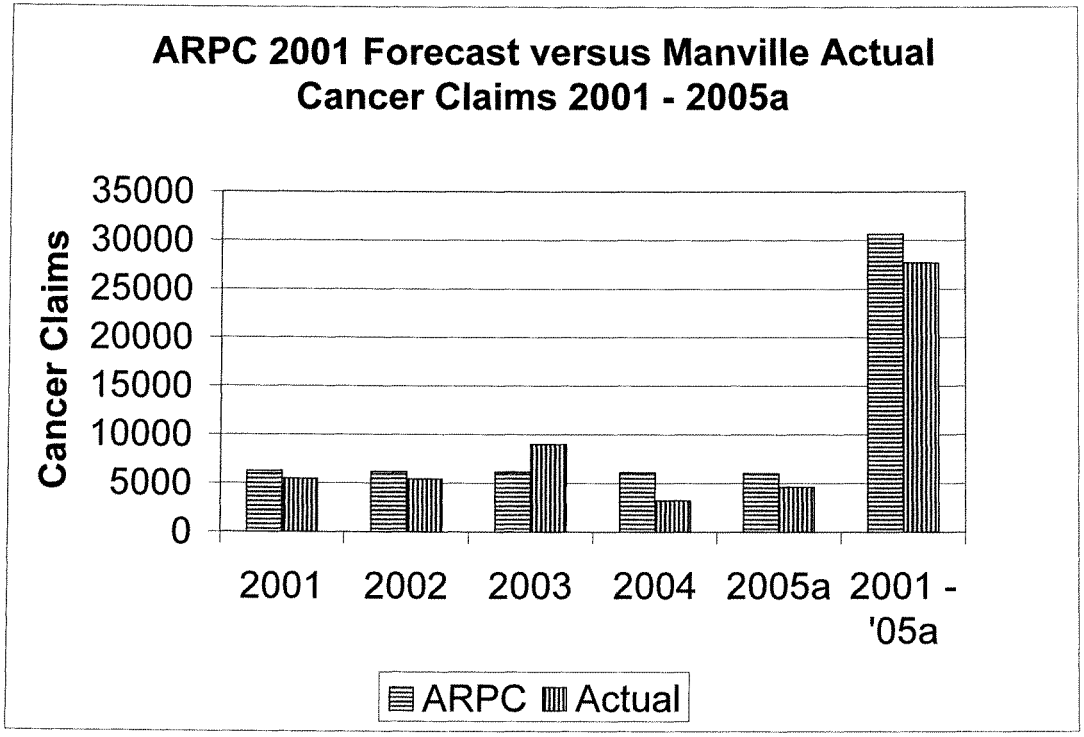
Manville Personal Injury Settlement Trust Table 1

Comparison of ARPC 2001 Forecast and Actual Claim Filings for the Years 2001 - 2005

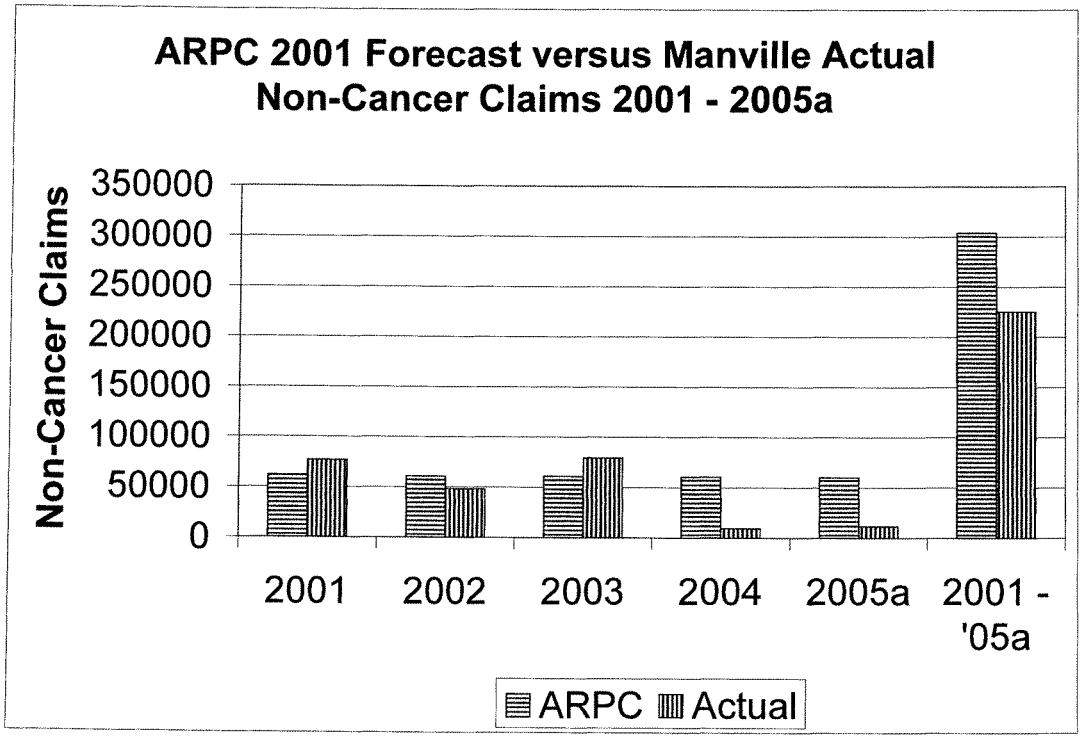
		Mesothelioma	*Lung Cancer*	*Other Cancers*	*Cancer Subtotal*	*Other*	*Total*
ARPC Point Forecast	2001-2005	10,106	16,714	3,842	30,663	305,410	336,073
Actual Manville U.S. Filings	2001-2005a	10,470	13,514	3,715	27,700	236,948	264,648
Forecast less Actual		(364)	3,200	127	2,963	68,462	71,425
	% change	-4%	19%	3%	10%	22%	21%

a - Actual claim filings in 2005 annualized based on first 11 months.

12/21/05



a - Actual claim filings annualized based on first 11 months of 2005.



a - Actual claims filings are annualized based on first 11 months of 2005.

Manville Personal Injury Settlement Trust
Scheduled Diseases and Values

Payment Plan	Disease Category	Description	Scheduled Value
1995 TDP	0	Not a Scheduled Disease	*
	1	Bilateral Pleural Disease	$12,000
	2	Nondisabling Bilateral Interstitial Lung Disease	$25,000
	3	Disabling Bilateral Interstitial Lung Disease	$50,000
	4	Other Cancer	$40,000
	5	Lung Cancers (One)	$60,000
	6	Lung Cancers (Two)	$90,000
	7	Malignant Mesothelioma	$200,000

Payment Plan	Disease Level	Description	Scheduled Value
2002 TDP	L0	Not a Scheduled Disease	*
	L1	Other Asbestos Disease (Cash Discount Payment)	$600
	L2	Asbestosis/Pleural Disease	$12,000
	L3	Asbestosis/Pleural Disease	$25,000
	L4	Severe Asbestosis Disease	$95,000
	L5	Other Cancer	$45,000
	L6	Lung Cancers (One)	**
	L7	Lung Cancers (Two)	$95,000
	L8	Mesothelioma	$350,000

* Category or Level designated for claims that do not meet the scheduled criteria.
** Must be individually evaluated.
Note: Almost any claimant can elect individual evaluation of their claim.

Table 3

Manville Personal Injury Settlement Trust
Payment History by Payment Plan and Summary Injury (U.S. Exposures Only)
November 30, 2005

Payment Plan	Summary Injury	Paid Claims	Actual Total Payments	Actual Average Payment	Total Manville Liquidated Value*	Average Liquidated Value*
Pre TDP	Lung Cancer	2,827	$182,204,994	$64,452	$206,213,310	$72,944
	Mesothelioma	1,860	$251,961,496	$135,463	$282,892,028	$152,092
	Non-Malignancy	22,012	$584,821,632	$26,568	$661,077,660	$30,033
	Other Cancers	879	$33,898,672	$38,565	$37,971,545	$43,199
	Total	27,578	$1,052,886,794	$38,179	$1,188,154,543	$43,083
1995 TDP	Lung Cancer	37,532	$300,452,938	$8,005	$3,395,621,383	$90,473
	Mesothelioma	15,949	$356,486,063	$22,352	$3,591,397,772	$225,180
	Non-Malignancy	522,386	$1,339,782,527	$2,565	$17,005,959,180	$32,554
	Other Cancers	8,474	$33,832,382	$3,992	$386,180,584	$45,572
	Other	14	$53,896	$3,850	$551,456	$39,390
	Total	584,355	$2,030,607,805	$3,475	$24,379,710,375	$41,721
2002 TDP	Lung Cancer	1,965	$7,333,716	$3,732	$158,461,690	$80,642
	Mesothelioma	8,869	$159,317,736	$17,963	$3,186,011,306	$359,230
	Non-Malignancy	23,378	$17,146,084	$733	$335,088,618	$14,334
	Other Cancers	857	$1,530,668	$1,786	$28,028,972	$32,706
	Total	35,069	$185,328,203	$5,285	$3,707,590,586	$105,723
Total	Lung Cancer	42,324	$489,991,648	$11,577	$3,760,296,383	$88,845
	Mesothelioma	26,678	$767,765,295	$28,779	$7,060,301,106	$264,649
	Non-Malignancy	567,776	$1,941,750,243	$3,420	$18,002,125,458	$31,706
	Other Cancers	10,210	$69,261,721	$6,784	$452,181,101	$44,288
	Other	14	$53,896	$3,850	$551,456	$39,390
	Total	647,002	$3,268,822,802	$5,052	$29,275,455,504	$45,248

* Represents the full Manville Trust liability of which the Manville Trust can only pay a partial amount.

12/21/05

CONGRESSIONAL BUDGET OFFICE
U.S. Congress
Washington, DC 20515

February 1, 2006

Honorable Arlen Specter
Chairman
Committee on the Judiciary
United States Senate
Washington, DC 20510

Dear Mr. Chairman:

I am pleased to provide you with the enclosed responses to questions submitted for the record following the Senate Judiciary Committee's hearing on November 17, 2005, regarding S. 852, the Fairness in Asbestos Injury Resolution Act of 2005.

If you wish further details on these responses, we would be happy to provide them. The CBO staff contact is Mike Waters, who may be reached at 226-2860.

Sincerely,

Donald B. Marron
Acting Director

Enclosure

cc. Honorable Patrick J. Leahy
Ranking Democratic Member

Questions from Senator Cornyn:

Can you comment, specifically, on the limitations faced by the Congressional Budget Office in producing the report and making the valuation of the trust fund? What specifically are the limitations on the accuracy of the CBO's valuation of $120 billion to $150 billion and what confidence level can the CBO place on that valuation?

Projecting any activity nearly fifty years into the future poses significant estimating risks. Our estimate of the valid claims that would be submitted to the asbestos fund is subject to numerous limitations, as indicated in our cost estimate of August 25, 2005, and in our subsequent letter to Senator Specter on December 19, 2005. Those limitations include little information about settlements that have already occurred, the lack of comprehensive information on the status of pending claims for injuries caused by asbestos exposure, and the highly uncertain number of future claims for such injuries. In addition, it is difficult to predict how the behavior of claimants and their advocates under a new system to compensate asbestos injuries might compare with that under the current tort system, and exactly how the procedures governing the new fund would be implemented. Finally, unpredictable fluctuations in economic conditions (in particular, inflation and interest rates) add to the uncertainty of the estimate over 50 years.

CBO's estimate for S. 852 is based on past behavior of claimants and the judgments of others who have studied the legislation. Many of the individuals that have studied the legislation have also participated in determining adequate funding for various bankruptcy trust funds that have been established to pay victims of asbestos exposure related to individual firms. In hindsight, some of those trust funds did not contain adequate funds to pay all of the claims presented to them; for others it is too soon to judge their ultimate financial viability.

There is no comparable historical data series for CBO to use to determine a specific confidence level for this cost estimate. We estimate the value of claims that would be presented to the asbestos fund is between $120 billion and $150 billion, though the ultimate result could certainly fall outside that range. Furthermore, that range does not encompass the impact of several factors CBO could not quantify, such as the submission and approval of dormant claims, claims for take-home exposure (that is, indirect exposure of family members), exceptional medical claims, the impact of using CT scans for medical documentation, and the potential effects of treating other sites like Libby, Montana. In addition, the bill would require the Institute of Medicine of the National Academy of Sciences to examine the causal link between asbestos exposure and cancers other than lung cancer or mesothelioma. We cannot predict the outcome of that study—but if it were to determine that there is no causal link between asbestos exposure and any of those cancers, the number of claims for such conditions (level VI under the bill) could decline significantly.

The CBO uses a number of sources for its valuation. Please provide the number of sources used and please list the names of those sources.

In determining its projection of future claimants to the asbestos fund, CBO considered other projections available to us. These included several forecasts prepared for the Manville Trust, some prepared by Navigant Consulting, and reports published by the Rand Corporation. We also examined estimates from sources that were mentioned by Senator Specter during the hearing on November 17, 2005, including the Asbestos Study Group, Legal Analysis Systems, and NERA Consulting. Finally, CBO discussed the legislation with representatives from trade unions, business groups, and the insurance industry. More recently, CBO examined projections produced by Bates White, LLC, and met with representatives of that firm.

Does the CBO have an equivalent effective estimate of the total number of possible level 6 and level 7 cancer victims that could show occupational exposure and asbestos-related disease (speaking epidemiologically)?

No, CBO did not attempt to calculate the total number of individuals who might qualify for compensation under the bill. Our estimate is based on the number of claims that have been compensated and forecasts of future claims, knowing that some who qualify will not apply for compensation.

...does the CBO have an opinion about a reasonable rate to assume for those that will actually file a claim? Why and on what basis?

No, CBO did not estimate claiming rates as part of its analysis. CBO projected the number of future claimants but did not estimate the number of individuals who would be eligible to file claims. The number of people who claim benefits in other federal programs often falls well short of the number who are eligible. (For example, the Department of Agriculture estimates that, in 2003, only 56 percent of those eligible for food stamps applied for them.) It is possible that the same will be true of the asbestos trust fund.

How can the CBO be assured that Level 6 and Level 7 claimants will not be sufficiently higher than the estimates of past funds or claims within the tort system given the substantially higher claim awards within the trust fund? Why and on what basis? Is it not reasonable to assume that the number of claims to the Trust Fund should increase dramatically, as STATS points out and Bates White seems to recognize? Why or why not?

There is not enough information available for CBO, or any other analysts, to be sure of any particular outcome. In the course of its analysis, however, CBO has concluded that there is no compelling basis for concluding that the claims experience of the proposed asbestos trust fund would differ significantly from that of the current tort system.

It is unclear, for example, whether the proposed federal asbestos fund would provide financial incentives to the various participants that would result in claims that differ significantly from those under the tort system. Some claimants might obtain a greater award from the federal fund than they would be able to win in the tort system; others might receive less. Even though the Manville Trust does not have sufficient funds to pay the full value of its awards, most who receive payment from Manville also receive payments from multiple other defendants, adding up to awards significantly greater than the amount received from the Manville Trust alone. Actual settlement amounts are typically confidential, but the recent Bates White report on S. 852, for example, estimates that average compensation—before attorneys' fees—is $915,000 for claimants with mesothelioma, $230,000 for claimants with lung cancer, and $115,000 for those with other cancers. If those estimates are accurate, the amounts received by claimants are less than the awards authorized under S. 852, but they are not insignificant sums, and it is not clear that the prospect of larger awards under the bill would cause dramatically more claims to be filed.

Furthermore, although the financial incentives for some claimants might be greater under the bill than under the current tort system, the financial incentives for attorneys to assist claimants would be weaker. Attorneys play a significant role in identifying claimants and pursuing their claims under the current system, and would probably do so under S. 852. However, the bill would cap attorneys' fees at 5 percent of awards from the fund; by contrast, under the current tort system, attorneys typically receive fees of up to 40 percent of the amount awarded. Because attorneys or others who might assist claimants would play such a key role in the claims process, the bill's cap on fees makes it less likely that the legislation would lead to a substantial influx of claims that are not represented in the current system.

Given the CBO's expressed limitations with respect to predicting future claims, and given at least some competing views with respect to predicting claims, how can we realistically predict the total cost of the Trust Fund and ensure that the Fund will not either revert to the court system or require additional private or public funding?

Neither CBO nor other analysts can provide absolute assurance that any particular estimate of the valid claims that would be presented to the asbestos fund is correct. CBO's analysis suggests that, as the bill is currently structured, the fund might or might not have sufficient resources to pay all valid claims. There is a significant likelihood that the fund's revenues would fall short of the amount needed to pay valid claims, as well as debt-service and administrative costs. There is also some likelihood that the fund's revenues would be sufficient to meet those needs. The final outcome cannot be predicted with great certainty. Without a substantial increase in the resources available to the fund, there is no way to guarantee that the fund will not either revert to the court system or require additional funding. Under S. 852, any additional funding beyond the amounts authorized in the bill would require the Congress to enact additional legislation.

Questions from Senator Biden:

1. You have stated that the number of malignants likely to file under the fund ranges from 60,000 to 100,000, and even to as high as 130,000 or 150,000. If claims reach 100,000 or 150,000, how does that affect your projections?

The center of our range reflects costs for about 100,000 claims for malignant conditions. If the number of such claims were as high as 150,000, we would expect the value of claims filed for malignant conditions to rise by about $45 billion.

2. The press has reported that you are "terrified" about the budget deficit in coming decades. If we pass this bill, are you likely to become more terrified or less?

The aging of the baby-boom generation will put increasing pressure on the federal budget in the coming decades—at the same time that the asbestos fund would be paying claims. But, under S. 852, the fund's administrator would not be authorized to obligate funds in excess of anticipated revenues. Because the administrator would be allowed to borrow against future revenues to the fund, its operations could contribute to the federal deficit in some years, but over the life of the fund (whether or not it sunsets), we would not expect the legislation to add to the aggregate federal debt.

There is some risk, however, that if valid claims were to exceed the fund's resources, the Congress and the President might feel impelled, at some time in the future, to allocate general funds of the Treasury to satisfy such claims.

3. You say you didn't take into account the cost of exceptional medical claims. Are there limitations for who can submit an "exceptional medical claim?"

The only limitation is that those already covered under the medical criteria could not submit an exceptional medical claim. Subsection 121(g) of the bill would stipulate that any claimant "who does not meet the medical criteria requirements....may apply for designation of the claim as an exceptional medical claim." But such a claimant needs to be able, "through comparably reliable evidence," to show that he or she "has an asbestos-related condition that is substantially comparable to that of a medical condition that would satisfy the requirements of a category" specified in the bill.

a. Doesn't that mean that anyone who has an asbestos-related disease may submit an exceptional medical claim? Would the cost be minimal or substantial?

Anyone who does not meet the medical criteria could *submit* such a claim. The ultimate costs of such claims would depend on the criteria that the administrator and the reviewing physicians panels would apply in considering such claims. The bill is not specific in that regard. Because CBO has no basis for predicting those criteria or how stringently they would be implemented, we have not attempted to estimate the costs that might result from exceptional medical claims.

4. CBO's analysis states that the Asbestos Fund would increase budget deficits over the 2006-2015 period by $6.5 billion, excluding debt service costs.

a. Why did you exclude debt service costs?

In estimating the budgetary impact of legislation for the purposes of the Congressional budget process, the budget committees and CBO have a long-standing estimating convention of not including financing (debt-service) costs in the cost estimates for individual pieces of legislation. Such costs are ultimately incorporated in CBO's multiyear baseline projections and in our analyses of comprehensive budget plans, such as the President's budget and budget resolution options.

b. What are CBO's projected debt service costs for this fund?

Over the 2006-2015 period, the Treasury's debt-service costs would add about $1 billion in outlays to the federal budget. If the value of valid claims presented to the fund were about $130 billion (the scenario presented on page 8 of CBO's August 25, 2005, cost estimate for S. 852), we estimate that the fund would incur interest costs totaling about $10 billion over its life.

c. If you have not estimated such costs, please execute such an estimate and include it in any revised evaluations of the fund. Also, please provide and explain the interest rate you are utilizing.

We used CBO's March 2005 projections for the rate on the 10-year Treasury note to project borrowing costs for the fund. That rate starts at 4.6 percent in 2006 and rises to 5.4 percent for 2008 and subsequent years.

5. What is the impact on the fund's finances and its ability to pay claims if the Supreme Court determines that the National Fund's seizure of existing trust assets violates the Constitution?

If the administrator of the fund were unable to obtain the assets of existing trusts, the fund would lose a significant portion of its initial resources—about $8 billion. The consequences of that event would depend on what responsibility the new asbestos fund would have for claimants against those existing trusts. If potential claims against the new fund were not correspondingly reduced, its ability to pay all valid claims would be diminished. CBO's estimate does not seek to anticipate any potential legal challenges concerning this legislation.

6. The Black Lung Fund was initially designed to be a program requiring federal funding only during the initial transition years. Over 30 years later, the program is still going strong and is almost exclusively financed by the federal government. Without definitive information on the number of persons that form the eligible population, the actual number of pending claims, the number of claims that will be filed, the values of those claims, and the actual revenues that will be collected from defendants and insurance companies, doesn't the federal government run the risk of either a similar bailout concerning the proposed asbestos trust fund, or a collapse or sunset of the program?

Despite extensive research by many parties over a long period of time, there is no definitive way to predict with precision the number and value of claims against the asbestos fund or the revenues that will be collected. By CBO's estimate, the fund might or might not have sufficient resources to pay all valid claims. It is certainly possible that the proposed asbestos fund would be required to sunset before compensating all valid claims presented to it, or that the Congress and the President would feel the need to enact additional legislation providing resources beyond those authorized in S. 852.

7. The Black Lung Fund was projected to cost a maximum of $3 billion during its first 20 years; yet, during the first ten years of its existence, more than $8 billion was paid to claimants in Part B alone. Is it not the case that if the experience of the proposed fund mirrors the events involving the Black Lung Fund, the excessive cost could put the total cost of the asbestos fund beyond the $200 billion range?

If the value of valid claims were to be two or three times what CBO estimates, the potential cost of such claims could far exceed $200 billion. In that event, the program would sunset and the fund would not be liable for payments in excess of the resources available to it.

8. How would the need for borrowing in the first 10 years be affected by a start date of January 1, 2007?

Assuming no significant change in the value of the assets held by the bankruptcy trusts, such a change in the start date would not have a significant impact on the fund's borrowing.

Questions from Senator Durbin:

...the CBO projects 78,000 future compensable cancer claims. Do you know how many of these projected claims are mesothelioma cancers? And how many projected lung cancer claims are in each lung cancer category?

For the midpoint of its range, CBO projects about 34,000 future claims for mesothelioma and about 34,000 future claims for lung cancer (about 17,000 for each of Levels VIII and VII). The remaining 10,000 future claims for malignant conditions in our estimate are for other forms of cancer (Level VI).

Data from the National Center for Health Statistics show that the number of deaths actually reported to be from mesothelioma in the U.S. are running 25% higher than the number of mesothelioma claims that have been projected by the CBO. Additionally, a recent study by the National Institute for Occupational Safety and Health suggests an even higher number of mesothelioma deaths. What would be the cost of S. 852 if your underlying assumption on the number of mesothelioma claims is wrong?

If the number of mesothelioma claims were to prove higher than expected while other claims remained the same, the total cost to the fund would rise accordingly. Over the life of the fund, an average mesothelioma claim would have a value of about $1.4 million, CBO estimates. An increase of 25 percent in the estimated number of future claims for mesothelioma would add about $12 billion to the value of claims against the fund.

Section 133 of S. 852, as reported by the committee, presumes a 3 year payout period. Yet, your study seems to assume that all non-exigent claims will be paid out over 4 years. How would a 3 year payout compared to a 4 year period impact the funding needed and debt incurred in the initial 10 years?

In general, the bill would provide for a three-year payout, but it also would direct the administrator to develop guidelines for a four-year payout (with at least 50 percent of the total award paid in the first two years) if such action is warranted. Because CBO believes that the administrator would need to borrow very early in the life of the fund, and because a longer payout period would reduce the need to borrow in any given year, we believe that a four-year payout is more likely.

If the Administrator chose to adopt a three-year payout, the amount of funding needed in the first 10 years would increase by around $3 billion. It would also increase the 10-year impact on the budget deficit by about the same amount.

What is the amount of increased liability that the Trust Fund would face if the 9,400 new mesothelioma claims that were presented to Manville since the beginning of 2003 filed a claim with the Trust Fund for the unpaid value of their claims under the Trust Fund? How would this affect the need for borrowing by the Trust Fund in the first 5 years?

CBO's estimate already encompasses such claims because it includes the value of pending claims (including claims for mesothelioma) at the time of the bill's enactment. The value of pending claims includes those of claimants that have received payments from one or more defendants that sum to less than the awards authorized by the legislation.

What is the amount of increased liability for the Trust Fund if the estimate of future mesothelioma claims is increased by 20,000 over the life of the Trust Fund?

If we were to increase our estimate of the number of valid mesothelioma claims that would be presented to the fund over the next 50 years by 20,000 and make no other changes to the estimate, the value of claims presented to the fund would increase by around $30 billion. That figure assumes that the distribution of those additional claims over time would be the same as the distribution reflected in our cost estimate for S. 852.

What is the amount of increased liability for the Trust Fund if you accept the "Tillinghast 2005" projections that weighted average projection for future U.S. mesothelioma claims for the Manville Trust would be 42,500?

The 2005 projections of mesothelioma claims prepared for the Manville Trust by Tillinghast and CBO's estimates are not directly comparable and may not be significantly different. Manville's projection of 42,510 total future mesothelioma claims is not comparable to CBO's estimate of 34,000 future claims because it includes claims expected in 2005, while the first year of future claims projected by CBO is 2006. (The 2005 cases are treated as pending claims in CBO's estimate.) Adjusting for this difference in the projections would reduce the Manville projection by about 2,300, to a total of about 40,200. In addition, because claims presented to the Manville Trust have generally already been filed elsewhere as well, some of the claims that Manville expects to see in the future are among those claims that CBO estimates will be pending when the fund begins operations. We estimate that there will be nearly 8,000 pending mesothelioma claims when the fund begins operation, and our estimate includes the cost of such claims. An unknown number of those pending claims are included in the Tillinghast estimate.

What additional liability would the Trust Fund face assuming this weighted average accounts for only 90% of the total mesothelioma claims, as stated in the testimony by Mr. Mark Lederer of the Manville Trust?

In estimating the likely value of claims against the new asbestos fund, it is appropriate to assume that some potentially eligible claimants would not seek compensation from the fund—just as not all eligible beneficiaries participate in many federal programs. Thus, if the Manville Trust is only facing claims involving 90 percent of mesothelioma cases, that outcome would not necessitate an adjustment to CBO's estimate.

Response to Questions from Senator Biden
Hearing on "Recent Developments in Assessing Future Asbestos Claims Under the FAIR Act"

NERA Economic Consulting, Inc.

Questions for Dr. Martin

1. Do you know what data were used by the drafters of this bill in determining that $140 billion would suffice?

    a. Have you seen this data?

        i. If yes, please produce that data to the Committee.

        ii. If no, would your study be more accurate if you had the data that were actually used in drafting this bill?

Answer: My understanding is that the bill was drafted by Senators Specter and Leahy with the assistance of Judge Edward Becker and in consultation with other members of the Judiciary Committee. The bill was based on similar bills introduced in the last Congress that were drafted by Senator Hatch and also amended in committee. I am in no position to know what data were used by the Committee in determining the funding requirements of the bill.

The Congressional Budget Office has provided its own independent analysis, based upon its review of data and projections produced by a variety of individuals and organizations with varying positions on the bill. Its conclusion was that the Fund most likely will receive $132 billion in claims, with uncertainties in either direction. The CBO is best positioned to comment on the evidence on which it relied and the judgments it made in arriving at its estimate. The Director of the CBO made it clear in his testimony on November 17, 2005, that its estimates are based on forecasts similar to those that have been prepared for the Manville Trust.

More specific information about the CBO's estimates would not impact my testimony. The issue that I addressed is whether the claims projections made by Bates White are credible. For two reasons, it is my belief that they are not. First, Bates White dramatically overestimated the population that would be eligible to file a claim under the FAIR Act. Second, using its own inflated estimates of liability, Bates White assumed claim filing rates of 100% when experience in the tort system and with current trusts shows that only a fraction of those with valuable claims, under standards no less strict than those of the FAIR Act, actually pursue those claims. Neither of those conclusions would be affected by a more detailed review of CBO's methodology.

2. If you are so certain that the proposed amount will be sufficient, then why do we need a federal borrowing provision? Would you object to removing that provision?

Answer: My testimony was focused on an analysis of the Bates White study; as such, the federal borrowing provision is beyond the scope of my testimony.

3. Does your analysis assume asbestos victims will file claims with the medical exceptions panel? If not, why not?

    a. What is your estimated cost of these claims?

Answer: My analysis focused on the Bates White conclusion that the cost of the FAIR Act would be at least $300 billion. In making that estimate, Bates White did not purport to address separately exceptional claims, and so it was unnecessary for me to do so.

4. You stated in your testimony that:

"Given the long history of asbestos litigation in the U.S., it is clear that claiming rates will not reach 100 percent. In the current tort system, for example, the filing rate for mesothelioma claims—a terminal disease whose only known cause is asbestos—is less than 100 percent even according to the Bates White study. There are a number of reasons to believe, as CBO evidently did, that these observed tort system claiming rates are indicative of claiming rates under the FAIR Act."

    a. If you don't believe that 100% of asbestos cancer victims will file claims with the asbestos trust fund, then what percentage do you estimate *will* file?

Answer: I do not believe that 100% of those with asbestos-related cancers will file claims with the asbestos trust fund. I have not made an estimate of the percentage of claimants who will file claims under the FAIR Act, but believe that filing behavior under the Act will be similar to filing in the tort system, for the reasons stated in my answer to Questions of Senator John Cornyn, No. 1.

    b. To ensure that $140 billion is sufficient to cover all claims, what percentage of asbestos cancer victims must you assume will file claims?

Answer: I have not produced an independent estimate of the likely claiming rate against the asbestos trust fund. However, the CBO estimates correspond to rates of filing of eligible claims of between 37 and 86 percent for lung cancer and between 38 to 89 percent for other cancer. I estimate the proportion of future cancer cases that would meet the exposure requirements of the FAIR Act based on my replication of the generally accepted Nicholson population. This number is smaller than the exposed population assumed by Bates White. I use a range of pleural prevalence estimates drawn from the Bates White study to impose the

medical requirements.[1] *Using the average pleural prevalence of 29 percent, reported by Bates White for studies of high exposure populations, produces the 37 percent and 38 percent values for lung cancer and other cancer, respectively. Using a 13 percent pleural prevalence estimate, the weighted average prevalence reported by Bates White, produces the 86 percent and 89 percent values.*[2]

5. Are there limitations for who can submit an "exceptional medical claim?"

    a. Doesn't that mean that anyone who has an asbestos-related disease may submit an exceptional medical claim? Would the cost be minimal or substantial?

Answer: The bill contains limitations on eligibility for the designation of "exceptional medical claim." Specifically, Section 121 (g)(4)(B) provides:

> *"A claim shall be designated as an exceptional medical claim if the claimant, for reasons beyond the control of the claimant, cannot satisfy the requirements under this section, but is able, through comparably reliable evidence that meets the standards under this section, to show that the claimant has an asbestos-related condition that is substantially comparable to that of a medical condition that would satisfy the requirements of a category under this section."*

Moreover, all such claims must be reviewed by a Physicians Panel, which may request additional medical testing, and must determine that the medical evidence is sufficient to show a comparable asbestos-related condition. This standard does not allow all who claim they have an asbestos-related disease to qualify as an exceptional medical claim.

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[1] Bates White, LLC, "Analysis of S.852 Fairness in Asbestos Injury Resolution (FAIR) Act," September 19, 2005, p. 40, ¶ 99. Using the pleural prevalence rates for Level VI and Level VII claims is an approximation. Level VI claims must have bilateral asbestos-related nonmalignant disease and Level VII claims must have bilateral pleural disease.

[2] The Bates White pleural prevalence rates are used for illustrative purposes only. For reasons discussed in my written testimony before the Senate Judiciary Committee, I believe the Bates White study significantly overestimates the expected prevalence of pleural changes in future cases of lung and other cancer.

RESPONSES TO QUESTIONS FROM SENATOR JOHN CORNYN
ASBESTOS HEARING – 11/17/05

To Denise Martin (National Economic Research Associates)

1. You rightfully point out that Bates and White calculates entitlements, that is – those who could file under the Trust Fund, as opposed to an estimate of those who will file. You criticize that as overstating the cost of the Fund, which it may well do, stating "it is clear that claiming rates will not reach 100 percent." What rate of claim filing would you propose?

   Answer: At the outset, I believe that the Bates White study exaggerates the number of people who could file a claim under the Trust Fund by failing to adequately account for the eligibility requirements.

   I have not produced an independent estimate of the likely claiming rate against the Trust Fund among eligible cases. However, the CBO estimates correspond to rates of claim filing among eligible cases of between 37 and 86 percent for lung cancer and 38 to 89 percent for other cancer. I estimate the proportion of future cancer cases that would meet the exposure requirements of the FAIR Act based on our replication of the generally accepted Nicholson population. This number is smaller than the exposed population assumed by Bates White. I use a range of pleural prevalence estimates drawn from the Bates White study to impose the medical requirements.[1] *Using the average pleural prevalence of 29 percent, reported by Bates White for studies of high exposure populations, produces the 37 percent and 38 percent values for lung cancer and other cancer, respectively. Using a 13 percent pleural prevalence estimate, the weighted average prevalence reported by Bates White, produces the 86 percent and 89 percent values.*[2]

   An economic analysis of incentives shows that the filing activity should not increase against the trust. First, the medical and exposure standards proposed for the trust are at least as strict as those employed in the tort system. Thus, the claims that meet the requirements of the bill have substantial economic value in the tort system as well.

   Second, the audit and stiff penalty provisions of the FAIR Act are likely to prevent the extensive fraud and abuse that supported excessive filing of both cancer and non-malignant claims in the tort system. Third, the tort system is characterized by an efficient attorney-driven mechanism for recruiting claims, fueled by large contingent fees. There

[1] Bates White, LLC, "Analysis of S.852 Fairness in Asbestos Injury Resolution (FAIR) Act," September 19, 2005, p. 40, ¶ 99. Using the pleural prevalence rates for Level VI and Level VII claims is an approximation. Level VI claims must have bilateral asbestos-related nonmalignant disease and Level VII claims must have bilateral pleural disease.

[2] The Bates White pleural prevalence rates are used for illustrative purposes only. For reasons discussed in my written testimony before the Senate Judiciary Committee, I believe the Bates White study significantly overestimates the expected prevalence of pleural changes in future cases of lung and other cancer.

is no reason to suppose that claims generation under the FAIR Act would be more efficient than it is in the tort system, and everything we know about the tort system suggests the opposite is true.

2. Wouldn't we be correct to treat the Federal Trust Fund differently given that that average payout in the trust fund for a cancer victim is hundreds of thousands of dollars while the payout in the Manville Trust is pennies on the dollar – and totaled no more than several thousand dollars in most cases? Why or why not – and on what basis do you make your assertion?

   Answer: No, that would not be a proper comparison. While no database exists to determine the aggregate compensation to a given plaintiff in the tort system, we do know that, on average, claimants name dozens of defendants and file claims against more than one bankruptcy trust.[3] *Thus, the payout from the Manville Trust is just one of many that each plaintiff receives, and the aggregate amount received by claimants from all sources in the tort system far exceeds the payout that might be received from the Manville Trust alone.*

3. You criticize the Bates and White Analysis in a number of ways… but I am curious about one issue you raised about so-called "turnover." I am curious if you could tell us what appropriate rate we should assume?

   Answer: The generally accepted methodology to model turnover was developed by Nicholson et al. in their seminal 1982 paper.[4] *As described in that paper, appropriate turnover rates represent the proportion of workers that change industry or occupation from an industry or occupation with substantial asbestos exposure to one without substantial asbestos exposure, and vice versa. As such, two statistics need to be reflected -- separation rates from the asbestos-exposed industries and accession rates (i.e. new hires) into the asbestos-exposed industries. In the Nicholson paper, different turnover rates are estimated for each occupation and industry and it is assumed that separation rates are equal to new hire rates. The new hire rates used by Nicholson are reported in Table X on page 281 of the paper, and range from 9.2 percent to 29.4 percent per year. Nicholson makes an additional adjustment to those rates to eliminate the double-counting of persons who were hired in an occupation or industry during the period since 1940 and who had previously been exposed to asbestos in another occupation or industry.*

4. You claim that plaintiffs' attorneys have "two major ways" in which they receive their income: Bankruptcy Trusts and tort settlements. Isn't it true that, in fact, very little income historically has come from trusts because they pay very little and attorneys' fees are capped at low levels relative to tort claims? What fraction of a plaintiff attorneys'

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[3] Carroll, Stephen J., Elizabeth M. Sloss and Allan Abrahamse *Asbestos Litigation*, Santa Monica, Calif.: RAND Corporation, 2005.

[4] Nicholson, William J, George Perkel and Irving Selikoff, "Occupational Exposure to Asbestos: Population at Risk and Projected Mortality- 1980-2030", American Journal of Industrial Medicine, 3:259-311 (1982).

fees come from bankruptcy trusts?

Answer: In the absence of information on aggregate compensation received by individual asbestos plaintiffs, the proportion received from each trust, and specific attorney fee arrangements, the portion of plaintiffs' attorneys' fees attributable to awards from trusts is not readily calculable. Manville and the recently formed Western MacArthur trust both cap fees at 25%; we are not aware of any other trust that limits fees. There is, moreover, no evidence that plaintiffs' attorneys voluntarily reduce their contingency fee to reflect the absence of any contingency and the low administrative costs involved in obtaining compensation from the trusts. RAND (2005) interviewed individuals involved in asbestos litigation from a variety of perspectives, including some of the nation's leading asbestos plaintiffs' attorneys. None of those interviewed reported any evidence that the contingent fee rates demanded by plaintiffs' attorneys had been reduced to reflect changes in the litigation. While these plaintiffs' attorneys have likely recognized savings from routinization of the litigation (e.g., the widespread use of administrative payment schedules and the creation of certain trusts), none of those interviewed suggested that any of these savings have been passed on to plaintiffs.

The settlement practices of the bankruptcy trusts are important in evaluating the Bates White study without regard to the percentage of total compensation accounted for by the trusts, or the percentage of plaintiffs' attorneys' fees attributable to recoveries from the trusts. In the first place, those who file claims against asbestos trusts typically file claims in the tort system as well. Thus, for example, the Manville Trust (which does limit attorneys' fees) is believed to receive claims from nearly all people who file asbestos lawsuits. Claimants' lawyers are not bypassing the Manville Trust because of the fee limitation. More importantly, the eligibility criteria of the bankruptcy trusts are designed to reflect the settlement practices prevailing in the tort system when the trust was established. While the correspondence is not perfect, what goes on in the trusts is a useful indication of what happens in courts.

It is also worth noting that if the FAIR Act does not become law, very sizable resources from companies currently in Chapter 11 will be put into a new crop of bankruptcy trusts. Thus, the percentage of claimant compensation that comes from asbestos trusts would almost certainly increase.

Some questions have been raised with respect to the value we should place on testimony, valuations or presentations given certain "biases" that may exist based on who may be paying for services. Just so we can be clear, can you please provide for the Committee a list of clients for whom you or your employer have provided services with regard to Asbestos, a list of any organizations for whom you have performed work pro bono with respect to Asbestos – and specifically any information about the nature of your work or the work of your employer in the past with respect to Asbestos projections, assessments, valuations or any related work?

Answer: In many asbestos-related matters where NERA has been retained, our involvement is confidential. These projects tend to involve the preparation of asbestos

forecasts used for a variety of purposes: financial reserve reporting purposes, due diligence conducted prior to a merger, determining a fair price in insurance buy-back negotiations, or as an input to an insurance allocation. Matters in which our involvement is public include bankruptcy hearings for National Gypsum, Owens Corning, GAF and USG. We also worked for the Trustee in Swan Transportation/Tyler Pipe. We have prepared a number of analyses related to pending reform bills, funded by the National Association of Manufacturers Asbestos Alliance and the Chamber of Commerce. While a number of our clients favor passage of the FAIR Act, a number do not.

Responses to Senators' Questions Concerning

Peterson S.852 Testimony of

November 17, 2005

Mark A. Peterson

Legal Analysis Systems

December 22, 2005

1. Responses to Questions of Senator Arlen Specter

Question 1. Are my estimates of the number of future lung cancer and other cancer claims lower than Dr. Bates' forecasts?

Dr. Bates' forecasts take into account an expectation that all analysts have accepted from our earliest work in estimating claims costs for the predecessors of S.852: that a greater number of eligible victims of asbestos disease will file claims under the government sponsored administrative processes of a National Fund than have filed asbestos injury law suits in the past. CBO articulated this expectation in Director Holtz-Eakins letter to Honorable Arlen Specter of December 19, 2005:

- "The Bates White report highlights some factors that pose potential risks to the financial viability of the asbestos trust fund that S.852 would establish--including the possibility that the financial incentives created by the bill could lead to a substantial number of claimants with disease levels VII and VI. Those risks are real..." (p. 2).

RAND's leading research on the behavior of injured persons in filing claims supports this conclusion. RAND conducted large scale surveys of injured persons to determine what, if any, process they followed in seeking compensation and their satisfaction with that process. RAND found that injured persons preferred compensation processes that avoided litigation, a preference that should lead to significantly more claiming with S.852 than historic levels of litigation (Compensation for Accidental Injuries in the United States, Deborah R. Hensler, et. al, RAND, 1991, pp. 139-141).

Although all analysts, including CBO, recognize that more claims will be filed and qualify for payment for lung cancer and other cancer than have been filed in the past in asbestos litigation, none of us has attempted to estimate the magnitude of this increase. Rather we have based our forecast of claims payments under S.852 on the historic levels of claiming against asbestos defendants and trusts, while recognizing that there would be some additional, but hard to quantify, increase in claiming under the government sponsored administrative procedures of S.852.

Speaking only for myself, I had two reasons for not attempting to quantify how much the values and administrative convenience of S.852 and its predecessors would increase claiming over the historic level of claiming in tort litigation. First, any such quantification would be uncertain and grist for criticism, as the reception for Dr. Bates' forecast has confirmed. And second, many analysts' forecasts have clearly shown that even without assuming an increased rate of claiming under a government sponsored compensation program, the revenues available under S.852 and its predecessors would be inadequate to pay all eligible claims that would file when filings are forecast from historic claiming rates. Looking only at the number of asbestos claims that are now pending, that will be pending if the Fund becomes established and that would be filed in the future against the Fund, and basing all these forecasts on the historic tort filing rate, the Fund will be unable to pay claimants within revenues provided by the legislation. Given the inadequacy of S.852 funding and the funding levels of its predecessors when compared to credible projections of claims values, I saw no need to advance what would be a controverted forecast of how claim levels might increase under the government sponsored administrative processes of S.852 or its predecessors. The prognosis for the S.852 Fund is sufficiently dire without having to raise Dr. Bates' issues.

Stated another way, Dr. Bates and I have demonstrated independent and separate reasons why S.852 will fail. Like CBO I agree with Dr. Bates that he has identified a feature of S.852 that will produce more claims than we have seen in the past and that present a real risk to the financial

viability of the Fund. Also like CBO, while I accept Dr. Bates' argument that claims would increase under the government sponsored asbestos compensation program of S.852, I have not attempted to quantify that increase myself. While my past forecasts of future lung cancer and other cancer claims have been lower than those made by Dr. Bates, I recognize that mine were too low because they do not include increases in claiming that would certainly occur under a government sponsored asbestos compensation program. But because I have not attempted to forecast how much lung cancer and other cancer claims would increase under such a government sponsored compensation program, I cannot say how any such adjusted forecasts that I might make would compare to Dr. Bates' forecasts of lung cancer and other cancer filings with the S.852 Fund.

Question 2. What calculation produced the 66,000 to 87,000 range of predicted mesothelioma claims based on the Tillinghast forecasts for the Manville Trust?

Tillinghast provided 15 alternative projections of the number of mesothelioma claims that would be filed against the Manville Trust during or after 2005. Fourteen of these were alternative forecasts using a range of different assumptions in order to see how the futures forecast would vary with changing assumptions. The fifteenth was a composite forecast in which the other 14 alternatives were weighted for their probabilities according to Tillinghast and Manville. We used each of these 15 Tillinghast forecasts of post-2005 filings by persons exposed to asbestos in the United States to provide alternative estimates of the number of mesothelioma claims that would arise after 2005 and be filed with the S.852 Fund. Note that Dr. Francine Rabinovitz's recent written statement to the Committee is wrong in speculating that I had used Tillinghast's forecasts of U.S. plus foreign claims to project liabilities of the S.852 Fund. (Written Statement of Dr. Francine Rabinovitz Before the United States Senate Committee on the Judiciary Concerning S.852 ("FAIR Act of 2005"), undated, p. 13). We did not include any forecast of Manville claims based on exposures outside of the United States.

As Mr. Mark Lederer, the CFO of the Manville Trust, testified to the Committee, the Manville Trust does not receive all claims filed against any asbestos defendant. Mr. Lederer testified that the Manville Trust receives only 90 percent of the total number of mesothelioma filings. In order to estimate the total number of claims that would be filed with the S.852 Fund using Tillinghast's forecast solely for Manville, we divided the Tillinghast forecasts by .9.

While the Tillinghast forecasts provide an independent estimate of post-2005 claims that would be filed and qualify for payment under the Manville Trust procedures that are highly comparable to those of S.852, Tillinghast's forecast do not provide an estimate of the number of pending S.852 claims. Manville and the S.852 Fund will have different counts of pending claims. While Manville has been resolving claims continuously, the S.852 Fund will face every claim that is still pending against at least one asbestos defendant--a far greater number than Manville's count of pending claims.

CBO and all other analysts have accepted that as of year-end 2002, there were 300,000 pending claims that would be filed with the S.852 Fund (net of setoffs for collateral source payments). To this CBO's adds its count of new claims arising during 2003 to 2005, an incredibly low 22,000 total claims over the three year period. This is in contrast to CBO's forecast that nearly 80,000 new claims would arise in each year from 2006 through 2008, which is consistent with actual recent claim filings against asbestos trusts and defendants who are still participants in tort litigation. CBO's far lower forecast for 2003 to 2005 apparently reflects its attempt to adjust for collateral source payments during those years.

Unlike CBO, I have addressed recent collateral source payments directly and explicitly, based on empirical data. Instead of using CBO's impossibly low total of 22,000 new filings over the three year period 2003 to 2005, I accepted CBO's forecast of 80,000 current annual claim filings (i.e its forecast for each year 2006 through 2008) as a reasonable estimate of filings in each year from 2003 to 2005. I then separately estimated total collateral source payments by summing settlement payments during 2003 through 2005 reported by asbestos trusts and principal defendants. The S.852 Fund will receive a setoff for collateral source payments made to those who file claims with the Fund and I have estimated the amount of this collateral source payments made during 2003 to 2005 as $8 billion, which I subtract from the Fund's liability for pending claims.

Together these steps estimate about 540,000 pending claims that will have been filed through the end of 2005, subject to the $8 billion collateral source setoff for payments to claimants during 2003 to 2005 (collateral source payments prior to 2003 have already been taken into account in the 300,000 estimate of December 31, 2002 pending claims which is a count of "equivalent claims" net of settlements through that date). But these calculations do not provide an estimate of how the 540,000 pending claims will be distributed among the S.852 compensation levels. To estimate what percentage of these 540,000 claims would be for mesothelioma and each of the other payment levels, I used the Tillinghast forecasts for Manville. Because the distributions among disease categories differ somewhat among each of the 15 Tillinghast forecasts, I had somewhat different estimates of diseases among pending claims for each forecast based on the 15 Tillinghast alternatives. To summarize my forecast of the number of mesothelioma claims, for each of the 15 Tillinghast forecasts I started with the number of domestic mesothelioma claims forecast to be filed against Manville after 2005, grossing this up to estimate filings against all asbestos defendants by dividing the Manville forecast by .9, and then added the percent of the 540,000 claims pending as of year-end 2005 that corresponds to Tillinghast's estimate of the percent of future claims that will be mesothelioma for that particular Tillinghast alternative. I then subtracted $8 billion from the value of pending claims to reflect collateral source payments since the beginning of 2003.

Note that my currently projected counts of mesothelioma claims differ in two ways from my testimony before the committee in November. First, I have corrected the CBO count of forecast mesothelioma claims, so that I now use CBO's current year-by-year and disease-by-disease counts, which totals 41,422 mesothelioma claims, rather than the 45,000 count mentioned in my testimony that was derived from CBO's earlier year-by-year and disease-by-disease table. The 41,422 correctly reflects CBO's current forecast of the number of mesothelioma claims that would be filed with the S.852 Fund. Second, as I described above, I have adjusted Tillinghast's forecast of future Manville claim filings so that they represent the total filings against all defendants, claims that would be filed with the S.852 Fund, based on Tillinghast's forecasts and Mr. Lederer's testimony that the Manville Trust receives 90 percent of all mesothelioma claims filed against all defendants. This increases our forecast range of mesothelioma claims that will be filed with the S.852 Fund, based on the Tillinghast Manville alternative forecasts to between 67,902 and 87,374.

I have made revised forecasts of the S.852 Fund's liability and interest costs that use these revised forecasts and that also subtract $8 billion in collateral source payments to pending claimants and reduces the number of payable claims by applying the S.852 requirements of weighted years of exposure. Forecasts for the Fund do not change in any material way from the results that I described in my November testimony due to these revisions. The S.852 Fund becomes insolvent and sunsets within three years under each of the 15 alternative Tillinghast forecasts. The principal amount of the Fund's debt is greater than $60 billion at sunset under each alternative. And the Fund will have to pay more than $60 billion in interest costs under each alternative.

2. Responses to Questions of Senator Joseph R. Biden, Jr.

Question 1. Is uncertainty too great for a bill such as this?

Yes, uncertainty about how S.852 would be implemented is so great as to place enormous risks on all of the parties that the bill is supposed to protect--asbestos victims, defendants and insurers--and on U. S. taxpayers as well.

There is no certainty about how the proposed $140 billion of revenue would be raised, who would pay it, when the money would become available. There is great uncertainty about how much of the $140 billion could be raised, particularly if the Fund sunsets quickly, as it apparently will. In my opinion, Senators simply cannot rely upon the availability of this money. The especially great uncertainty about revenues after sunset means that taxpayers will face great risk that their tens of billions of dollars of loans to the S.852 Fund will not be repaid.

There is no certainty that the administrative procedures of S.852 could be implemented. The bill has designed an enormously complex process for receiving and evaluating claims, for raising money and for monitoring both processes. It presents a complex, untried taxing process that has been developed without the insights and experience of those in Congress and the Executive branch who normally deal with taxation issues. The bill's claims evaluation process takes the simple, honed claims procedures that are now used by asbestos trusts and adds layers of complexity; additional reviews, requirements, documentation and processes that have never been assigned to bankruptcy trusts and would have been rejected in bankruptcies as unworkably complex. The bill assigned responsibility to administer these complex and novel processes to the Labor Department, which has no related experience. Labor will be faced with an avalanche of claims like none that has ever been experienced by an asbestos defendant or trust, being required to review up to three-quarters of a million claims that it will receive within the first couple years. The bill demands super-human performance by Labor, which is required to identify and begin paying exigent claims immediately, to review all claims within months and to certify that all claims are being paid, all at the risk of having the Fund collapse within two years for failing to meet required time tables.

There is no certainty that S.852 will actually succeed in stripping all funds out of asbestos trusts in the face of the trusts' constitutional challenge of this taking. The S.852 Fund will have little, if any, money during its critical first two years without these funds.

What is least uncertain is that the Fund's liabilities, interest payments and expenses will greatly exceed the $140 billion. Analysts who have been hired by proponents of S.852, Navigant and HR&A who work for the Asbestos Study Group and certain insurers, continue to forecast that the Fund will be adequately funded. But they are alone in forecasting the Fund's solvency. (1) CBO's current, year-by-year forecast shows that the Fund will run out of money and sunset. (2) While still expressing uncertainty about the S.852, CBO's recent letter of December 19 finds the likelihood of insolvency greater than the likelihood of success: it finds "a significant likelihood that the fund's revenues would fall short of the amount needed" while holding on to "some likelihood" that the funds would be sufficient. (3) When applied to S.852, Tillinghast's similar futures forecasts for the Manville Trust show that the S.852 Fund will fail; the Fund would sunset within three years under all 15 of the Manville Trust forecasts. (4) Bates White "conclude(s) that the Trust Fund proposed under S.852 is not financially viable." (5) My own forecasts, using very different assumptions from Bates White, agree. And finally, (6) GAO points out that the costs of Federal entitlement programs like S.852 routinely exceed forecast costs and (7) CBO notes that asbestos liability forecasts have routinely underestimated actual future liabilities.

At this point, no one should place confidence in the success of S.852. At best the availability of

the promised $140 billion of revenues is highly uncertain, particularly given constitutional threats to the statute. The administrative feasibility of the act is suspect and highly uncertain. And there is growing consensus among analysts that the Fund's costs will exceed available resources, with uncertainty only about the size of this insolvency.

Question 2. Did CBO err in assuming that claims technically pending with a company but inactive for several years would not be filed with the National Fund, thereby excluding possible payments for such claims?

If CBO had included pending claims that it has excluded, what would be the financial impact on the S.852 Fund?

CBO excluded two groups of pending claims: (1) "Dormant" claims that are still pending against some asbestos defendants and (2) most claims that have actually been filed between 2003 and 2005. Neither exclusion is appropriate and the second, the exclusion of 91 percent of recently filed claims, based on CBO's "assumptions about the pace of settlements" (i.e. collateral sources), causes CBO to significantly underestimate the liability of the S.852 Fund.

Dormant claims. Claims are not dormant simply because they have been pending for many years against an asbestos defendant. Since 2000, eight of the largest asbestos defendants and many other smaller defendants have filed for bankruptcy protection. Because of the stays entered in those bankruptcies, there are now hundreds of thousands of current bankruptcy claims that were first filed before 2000. These are not dormant claims. They remain active bankruptcy claims and can and will be filed with the S.852 Fund as claims and, because of the bankruptcy stays, these claims will be subject to only small setoffs for collateral source payments.

In addition, there are other old claims that remain open against some defendants that might not have been pursued in tort litigation but that would now be revived and pursued against the S.852 Fund. For example, a claimant might have settled with eleven of the twelve defendants that he/she sued but then made no effort to collect from the twelfth. This will still be a current claim that might now be worth pursuing against the S.852 Fund if the amounts of settlements paid to that claim would not lead to a significant collateral source setoff. There are likely many claims like this that could receive significant payment from the S.852 Fund, but it is unclear how many such claims might be pursued.

Actual 2003 to 2005 filings. Data from asbestos trusts and financial reports of defendants who are still subject to asbestos tort litigation show that claim filings during 2003 to 2005 reached or exceeded 80,000 to 90,000 new claims per year. This is consistent with CBO's forecasts of about 80,000 new filings for each year between 2006 and 2008. Despite both the empirical information about actual new filings and CBO's own forecasts about current filing levels, CBO included a total of only 22,000 new claims as having arisen during 2003 to 2005, an average of only 7,300 claims per year. CBO apparently excluded over 90 percent of the claims that it recognizes are now being filed as a form of setoff for settlements during 2003 to 2005 that would provide collateral source reductions for the Fund's liabilities. CBO does not explain its assumptions about recent filings or settlement payments or setoffs, but its exclusion of over 90 percent of recent filings is highly excessive and inconsistent with empirical data about recent filings and settlements.

We looked to empirical data to estimate total settlements paid to asbestos claimants during 2003 to 2005. We added total payments during those years made by:

- defendants now in bankruptcy, based on bankruptcy data files;

- existing trusts, including Manville, DII, and Western Asbestos from data files and public reports;
- companies not in bankruptcy, using financial statements from all of significant asbestos defendants that were identified by Navigant and HR&A, consultants to the ASG and insurers who are proponents of S.852.

Across these sources we calculated that a total of $7.5 billion had been paid to claimants during this three-year period. Almost half of these payments (47 percent) were one-time payments made to pending claimants as part of the creation of two new asbestos Trusts: DII ($2.7 billion) and Western Asbestos (.8 billion). To account for payments among other defendants who we might have missed, we rounded this $7.5 billion total to $8 billion as our estimate of collateral source payments during 2003 to 2005.

This empirical derivation of collateral source payments is considerably less than the collateral source assumptions implied by CBO's exclusion of 91 percent of claims filed during 2003 to 2005. Based on CBO's forecast number of filings in 2006, we expect that CBO would recognize total new filings of about 240,000 claims during 2003 to 2005. Based on CBO's valuation of its forecast 2006 filings, we used a claim cost of about $16 billion for the those claims before adjusting for collateral source payments. In adjusting for collateral source, CBO includes in its forecasts only 22,000 new claims during 2003 to 2005, or 9 percent of the 240,000 claims that it recognizes being filed in those years. By excluding 91 percent of the new 2003 to 2005 filings, CBO implies that collateral source payments during 2003 to 2005 would be $14.6 billion (91% of $16 value for the 240,000 claims equals $14.6 billion). CBO provides no support for its large estimate of settlement payments during 2003 to 2005 and we know of no empirical data supporting such a huge estimate. Indeed settlement payments have decreased in recent years as defendants and insurers anticipate the possibly passage of S.852 and total settlements during 2003 to 2005 reach the level of $8 billion only because of the huge payment programs by two asbestos trusts.

Because of the implausibility of CBO's apparent assumptions about collateral sources and/or claims filings during 2003 to 2005, we have modified their forecasts, separating the assumption of 240,000 new filings during those years and then subtracting $8 billion of collateral source payments from the Fund's obligations to pending claimants. With these changes CBO's forecasts of the Fund's payments to pending claimants increase by $6.6 billion ($14.6 billion collateral source from CBO - $8 billion empirical calculation of collateral source = $6.6 billion). These changes make CBO's forecasts consistent with empirical data about recent claim filings and collateral source payments.

When CBO's assumptions about 2003-2005 filings and settlements are made consistent with empirical data, its liability forecast increases to a range of $127 billion to $156 billion. Moreover, because the Fund's liability is increased during the first years of its existence, this increase will exacerbate the Fund's borrowing and debt service costs, further eroding its financial viability.

Furthermore, it is important to note that CBO's estimated $16 billion value for 240,000 newly filed claims is based on an assumed disease mix of claims that greatly underestimates the seriousness and costs of claims that would likely be submitted to the S.852 Fund. In particular, CBO grossly undercounts the number of mesothelioma claims that would be submitted and paid to the trust, assuming far fewer mesothelioma claims than are now being submitted to the Manville Trust and forecasting far fewer mesothelioma claims than Tillinghast makes in is forecasts for the Manville Trust. If the Fund's liability forecast had been based on the Tillinghast's disinterested and independent forecasts for the Manville Trust rather than on Navigant's forecasts for proponents of S.852 that CBO apparently used in its projections, the new filings[1] during 2003 to 2005 would present a liability of $28 billion for the Fund that would be

offset by $8 billion in collateral source payments. Instead, by excluding 91 percent of this more likely liability CBO, in effect, estimated the 2003-2005 collateral source payments to be over $25 billion (91% of $28 billion), an amount unsupported by any data. Taken together CBO's forecast of the S.852 Fund's liability should be increased by $18.6 billion to reflect the empirical data on collateral source payments and the most likely values of recently filed claims, based on Tillinghast's forecasts of the disease distributions among claims ($20 billion net value derived by subtracting $8 billion of 2003-2005 collateral source payments from $28 billion liabilities for new 2003-2005 filings instead of CBO's $1.4 billion net value derived as 1 - .91 = .09 times $16 billion from CBO's estimate of the total value of the 2003-2005 filings).

CBO compounds its flawed and unsupported assumptions about collateral source setoffs with the flawed and biased assumptions about disease levels of claims. To address these flaws about claim filings and settlements during 2003-2005, CBO's forecasts should be increased by $18.6 billion. The financial impact of CBO's flawed assumptions about filings and settlements among pending claims during 2003-2005 is an inappropriate $18.6 reduction in CBO's forecasts. Simply by correcting these flaws about new pending claims and settlements during 2003-2005, CBO's forecasts of the total Fund's costs in paying claims would increase to $139 billion to $169 billion, well in excess of revenues available under S.852. If it had not made these flawed assumptions, CBO could not have concluded that there was even any chance that the S.852 would be financially viable.

Question 3. Are more people likely to make claims on a government program than would claim through litigation?

All analysts seem to accept that more claims would be filed under a government sponsored program, such as the S.852 Fund, than would file in litigation. This point was discussed and acknowledged by all analysts in 2003 when forecasts were first being made for the bills that preceded S.852. CBO accepts this assumption today:

- "The Bates White report highlights some factors that pose potential risks to the financial viability of the asbestos trust fund that S.852 would establish--including the possibility that the financial incentives created by the bill could lead to a substantial number of claimants with disease levels VII and VI. Those risks are real..." (Douglas Holtz-Eakin letter to Honorable Arlen Specter, December 19, 2005, p. 2).

RAND's leading research on the behavior of injured persons in filing claims supports this conclusion. RAND conducted large scale surveys of injured persons to determine what, if any, process they followed in seeking compensation and their satisfaction with that process. RAND found that injured persons preferred compensation processes that avoided litigation, a preference that should lead to significantly more claiming with the S.852 than historic levels of litigation (Compensation for Accidental Injuries in the United States, Deborah R. Hensler, et. al, RAND, 1991, pp. 139-141).

Forecasts of filings under the S.852 fund must of course account for the greater number of claims that would be filed with this government sponsored entitlement program. As mentioned above, even before the Bates White report all analysts have recognized this, but they have not previously attempted to quantify the higher level of claiming likely with the Fund because there has been little quantitative basis for estimating the number of additional claims. But it is clear and has been generally accepted that the S.852 would see more claims than have been brought in

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1. Our calculations of Tillinghast liabilities were based on an assumption of 233,000 claims during 2003 through 2005, a number we had obtained from the CBO projections available to us as of November 17, 2005, the date of my testimony.

litigation. This implies that liabilities will be greater than all forecasts made prior to the Bates White report, including forecasts by CBO, by Tillinghast for Manville, by analysts working for proponents of S.852 and even my own forecasts, all of which have been derived from historic levels of claiming filed through the litigation process.

Question 4. Would it make any difference to individual defendants or the financial soundness of the fund if the number of defendants contributing to the S.852 fund were 1,700 rather than 8,700 to 10,000 companies?

Proponents of S.852 assert that 8,700 to 10,000 companies would pay into the Fund. This 8,700 to 10,000 count apparently comes from the 2005 RAND report, but the RAND report cannot support the proponents' assertion. RAND researchers identified 10,463 entities named as defendants in asbestos litigation by combining lists of defendants sued in asbestos law suits provided by various insurers, defendants and law firms (Asbestos Litigation, Stephen J. Carroll, et. al., RAND, 2005. (pp. 78-79)). RAND observed that this count was excessive because the list included subsidiaries and divisions of the same company; misspelled, duplicate listings for some companies; government agencies and other problematic entries. To address these problems, RAND verified a sample of 500 listed entities and identified 401 different companies among the 500. From this sample RAND estimated that the original 10,463 represented about 8,400 unique defendants (with a 95 percent confidence interval the there were at least 8,025 and no more than 8,756 unique defendants).

It is improper to assume that all of the defendants in RAND's count of 8,000 to 10,000 defendants would contribute to the S.852 Fund. Rather, it is likely that most of the companies identified by RAND would not be required to pay under the taxation provisions of S.852, because in the past the company and its insurers will not have paid the threshold of $1,000,000 in asbestos litigation that would subject them to taxation under the fund.

An asbestos law suit typically names many defendants, but many defendants, many counted by RAND, will subsequently be dismissed from the suit without payment. Moreover, across the thousands of companies that RAND estimated as have been sued at least once, many will have been sued only once or a few times. RAND concluded that defendants who had "substantial numbers of claims" likely came from only eight of the 75 industries that RAND had identified among its listed defendants. But RAND had identified another 67 industries among asbestos defendants and RAND concluded that companies in these 67 industries likely "have each seen comparatively few claims" (Ibid, p. 85). RAND's discussion suggests that few companies from 67 of its 75 identified industries would be required to pay into the S.852 Fund.

Even if an asbestos defendant was named more than occasionally, the company would not be required to pay into the S.852 Fund if its past aggregate payments do not reach the minimum threshold for taxation. Moreover, as CBO notes, companies might be exempted under the various hardship provisions of the bill, which seems likely for many small or financially strapped businesses.

In contrast, CBO estimated that 1,700 defendants would be required to contribute to the S.852 fund "(b)ased on information that CBO could obtain about firms that have incurred asbestos litigation expenses." I cannot evaluate CBO's estimate, because it did not describe either the data that it used or how it made its estimation from that data. But the CBO forecasts do have more claim on credibility than those made by proponents of S.852. Unlike the bill's proponents, who seem to have relied improperly on the RAND counts of defendants, CBO considers and apparently accounts for S.852's requirements that payments need only be made by defendants who have met the threshold of incurred asbestos litigation expenses.

It makes a great difference if 1,700 companies make payments into the S.852 Fund or if 10,000

companies make payments. This difference of 8,300 companies would amount to $830 million dollars a year even if each of the disputed 8,300 companies was expected to make only a minimum $100,000 annual payment. This $830 million represents 28 percent of the $3 billion annual payment required among all asbestos defendants. If CBO is correct, then at least 28 percent of the annual revenues that are anticipated by proponents of S.852 would disappear. In turn, this means that either the S.852 Fund would receive significantly less revenue than proponents assert, further eroding the financial viability of the Fund, or else the remaining 1,300 defendants would have to pay considerably more each year than they have been told by the bill's proponents in order to make up this 28 percent shortfall.

Question 5. How will exposures as a result of 9/11 and Katrina increase the number of projected claims?

Exposures from 9/11 will likely be the more significant. The World Trade Towers were insulated with spray on insulation for most floors and surrounding buildings likely contained other asbestos insulation products. The asbestos exposures from the destruction of these buildings has been discussed in medical and insurance publications. Some first responders would likely have received significant short-terms exposures to asbestos fibers. Moreover, the fire and turbulence from the buildings' collapse carried asbestos fibers beyond the immediate area. Asbestos fibers have been found in the heating and air conditioning systems of businesses and residences in Manhattan and in the ambient air. Winds carrying asbestos fibers were borne over a wider area. It is likely that many people will continue to be exposed to elevated residual asbestos fibers for some time.

The most likely elevated risks to persons exposed to asbestos because of 9/11 would be for mesothelioma. With regard to the risk of mesothelioma, there is no medically recognized safe lower bound. Some additional persons will likely suffer mesothelioma because of these 9/11 asbestos exposures, but I am not familiar with estimates of this count.

Question 6. Should debt service costs be included and by how much do they increase CBO's forecast?

Debt service costs are real costs of the S.852 Fund and must be considered in forecasting the financial viability of the legislation and its Fund. CBO acknowledges this. As CBO notes, debt service costs will be significant because the Fund's liability is front loaded but its revenues will not be received until later. Because S.852 requires the Fund to pay claims as they arise, the Fund will be forced to borrow heavily. The Fund will sunset within 3 years of its formation because all of its future revenues, even assuming that it receives $140 billion over time, must be used to pay then pending claims, already incurred interest, repayment of its then present debt and interest that the Fund would continue to incur as it repays that debt over the next 30 years only as revenue continues to come in. In effect the Fund will have mortgaged all of its future revenue stream to pay its initial avalanche of liability.

Inexplicably, CBO does not forecast debt service costs. CBO does recognize that total Fund costs will exceed its $120 to $150 billion forecast for the cost of valid claims "because the fund must also cover administrative expenses and any financing costs." CBO implies that administrative expenses and financing costs would be at least $10 billion because it reports that "(i)f the value of valid claims was significantly more than $130 billion, the fund would probably be inadequate to pay all claims."

The S.852 Fund's debt service costs would be far greater than $10 billion. The Fund's forecast interest costs were $33 billion when we model CBO's forecasts of pending and future claims, using its year-by-year counts of claims and accepting its implausible assumption that only 22,000

new claims have arising during 2003 to 2005. More plausibly, the Fund's interest costs would be $42 billion when we correct CBO's implausible assumption about new claims to assume that as many new claims have arisen in each year 2003 to 2005 as CBO forecasts for 2006 and then subtracting $8 billion of collateral source payments during those years. The Fund's interest costs exceed $60 billion when forecasts of its liability are based on Tillinghast's forecasts of future claims against the Manville Trust, which provides independent analyses that are far more credible than CBO's acceptance and use of forecasts that had been made by Navigant Consulting, analysts who work for proponents of S.852 and whose analyses of asbestos liability have been rejected by Federal courts that have been presented with Navigant's work. See, e.g., In re: Federal Mogul Global Inc., 330 B.R. 133, 160, 164 (Del. 2005).

3. Responses to Questions of Senator John Cornyn

Question 1. Of the analyses you have seen with respect to projecting future claims to a Federal Trust Fund--is the Bates and White analysis or the CBO analysis more likely to be correct? Why?

In two critical respects the Bates and White analysis is more likely to be correct. First, the Bates and White analysis that S.852 "would create entitlements valued at $300 billion" is more likely to be correct than CBO's forecast "that ... valid claims (would be) worth between $120 and $150 billion."

As CBO acknowledges, its $120 to $150 billion forecast is an incomplete under-estimate of the liability costs of S.852 (Douglas Holtz-Eakin letter to Honorable Arlen Specter, December 19, 2005, p. 3). CBO states that its forecast excludes "(a) number of ... features (that) could add to the cost of the legislation," because CBO "could not estimate any costs or savings that might result from (those) features or consequences of the legislation" (Ibid). CBO identifies only one feature that might reduce costs: the possibility that medical studies required by the legislation might preclude compensation for some claimants. On the other hand, CBO identifies "(a) number of those features (that) could add to the cost of the legislation," which "CBO's estimate does not include":

- "potential claims by individuals with older, so-called dormant, asbestos claims pending in the court system who might seek additional compensation from the fund,
- "possible claims by family members who were exposed to asbestos,
- "the costs of any exceptional medical claims that could be made under the bill,
- "the potential costs for residents of other areas of the country who might be deemed eligible to receive the same special treatment given to the residents of Libby, Montana under the legislation,
- "the impact on costs of allowing CT scans to serve as documentation of pleural abnormalities."

Each of these items will result in additional liabilities. One feature, the expanded use of CT scans, is likely to increase greatly the Fund's payment costs by documenting asbestosis and/or pleural disease in many more victims of lung cancers than have been assumed in current forecasts. Together the effects of all of these features would add significantly to CBO's $120 to $150 billion forecast.

CBO also states explicitly that it accepts the Bates White report's warning "that the financial incentives created by the bill could lead to substantial number claimants with disease levels VII and VI," lung cancer and other cancer claims that would qualify for significant payments under S.852 (Ibid, p. 2). CBO agrees that these additional claims "pose potential risks to the financial viability of the asbestos trust fund that S.852 would establish" and that "(t)hose risks are real" (Ibid), although CBO does not agree that that added liability will be as great as Bates White foresee (Ibid). But again CBO did not increase its $120 to $150 billion forecast to include these additional costs that it anticipates.

CBO acknowledged that it had excluded from its forecasts at least six issues that "could add to the cost of the legislation" creating "real risk" "to the financial viability of the asbestos trust fund" (Ibid, pp. 2-3), because CBO felt unable to estimate the costs of those issues. As I testified in November, CBO's forecasts also grossly underestimate the costs and risk of the S.852 fund because those forecasts are based on a series of improbable or impossible errors:

- that the Fund will start in January 2005,
- that only 22,000 of the 240,000 new asbestos claims that arose during 2003 to 2005,
- that only 15% of nonmalignant claimants would qualify for compensation in contrast to the greater percentages assumed by other analysts, particularly Tillinghast in its forecasts for the Manville Trust,
- that only 41,422 mesothelioma claims will be filed with the the S.852 fund in contrast to the 69,776 mesothelioma claims using Tillinghast's forecasts for the Manville Trust.

If CBO had accepted the more plausible assumptions that are actually used to forecast liabilities of the Manville Trust, the total cost of valid S.852 claims would have increased to $213 billion and interest costs to $63 billion.

If forecasts of the liability of the S.852 Fund are increased further to account for the six costly issues that CBO recognized but ignored, it is more likely that the Fund's liability will be closer to the Bates White forecast of $300 billion than to CBO's own $120 to $150 billion forecast.

Second, based on this foregoing analysis it is apparent that Bates White conclusion that "the Trust Fund proposed under S.852 is not financially viable" will be correct. The values of claims will exceed the maximum $140 billion available to the Fund even before the significant interest costs are considered. CBO too recognizes that most likely the S.852 Fund will not have adequate resources to pay valid claims. CBO finds that "there is a significant likelihood that the fund's revenues would fall short of the amount needed to pay valid claims, debt service, and administrative costs" (Ibid, p. 2), but finds less chance that the funds would be sufficient. CBO describes only "some likelihood" that the funds would be sufficient in contrast to its findings of a "significant likelihood" that funds would be inadequate. Unlike Bates White, CBO holds out "some" chance of success asserting that "(t)he final outcome cannot be predicted with great certainty." CBO still finds some hope because, as it acknowledges, its $120 to $150 billion forecast excludes costs that it could not estimate, excludes administrative costs and, significantly, excludes financing costs (Ibid, p. 2). Here again, Bates White more appropriately describes the likely viability and minute chance of success for the S.852 fund.

Question 2. List of my clients for whom I have provide asbestos-related services and the nature of my work with respect to asbestos projections, assessments, valuations or any related work.

A. U.S. Federal and Bankruptcy Courts.

Judge	Description of Activity
Judge Jack B. Weinstein Judge Burton Lifland	Special Expert for Courts in restructuring Manville Trust: made many technical analyses of values of asbestos claims; cashflows of Trust payments under many alternatives; estimated total liability of all pending claims across all defendants; helped develop claims procedures; worked with Drs. Selikoff and Nicholson to provide technical medical information for the Courts and parties; oversaw negotiations resolving the class action and establishing the new Trust Distribution Procedures
Judge Thomas Lambros	Helped implement the Ohio Asbestos Litigation program for Northern District of Ohio Federal Court. Comprehensively interviewed defense, insurance and plaintiffs' lawyers about how to value asbestos claims and developed a set of rules for the court and parties; collected information about resolved and pending asbestos claims and then performed statistical analyses to identify resolved claims that provided precedential values for each pending claim
Judge Robert Parker	Worked with defense, insurance and plaintiff's lawyers to identify case characteristics that determine values of claims, then to collect data for each characteristic from about 700 pending asbestos claims; carried out statistical analyses of these data for the court

B. Asbestos Defendants.

Defendant	Description of Activity
E.J. Bartels Fuller Austin Insulation Thorpe Insulation Mac Arthur Corporation Porter Hayden Thurston Wallace and Gale Confidential Confidential	All work for each asbestos defendant involved valuing claims and forecasting total liability for all pending and future claims for purposes of their bankruptcy estimations and plans, or for insurance litigation, or for their financial reporting. I testified in court for two defendants and have been offered as a witness for others.
Confidential	Non-testifying expert to help prepare another, testifying expert for trial

C. Insurance Companies.

Insurer	Description of Activity
CNA and Continental Pacific Indemnity	Forecast future liabilities of Fibreboard Corp that would be channeled to the Trust established in the Ahearn class action and also liabilities under the related Rudd class action. Testified as an expert witness in the class action fairness hearing for both insurance companies
CNA and Continental	Confidential engagement to collect claims data for a particular insured
Zurich (Bermuda)	Confidential engagement to forecast asbestos liability for an insured
Several insurers	Testimony to Pennsylvania Insurance Commissioner about proposed Cigna runoff

D. Asbestos Trusts.

Trust	Description of Activity
Manville	Special Advisor to the Trust, position created in the settlement of the Findley class action to provide technical consulting to the trust, to the future representative, and to representatives of the various beneficiaries of the trust; establish dispute processing procedures for disputes among the parties; arbitrator for distribution of funds created in the the Findley settlement among codefendant beneficiaries of the trust; member of the panel that determines whether or not claimants qualify for treatment as an extraordinary claimant.
UNR Eagle-Picher National Gypsum Fuller Austin Raymark Keene Celotex H. K. Porter Wallace and Gale E. J. Bartels Western Asbestos Shook and Flectcher DII Fibreboard	Forecast liabilities of the Trust; review forecasts made by other experts; calculate pro rata payment percentages; help interpret and apply trust distribution procedures. Serve as an expert in insurance or other litigation for a trust. Trustee of Fuller Austin Trust. Member of board of directors of Trust Services Inc. a nonprofit corporation that provides claims review and other services for asbestos trusts.

E. Representatives of Future Claimants.

Matter	Description of Activity
A & I API Shook and Fletcher National Gypsum	Forecast liabilities of the debtor; review forecasts made by other experts; calculate pro rata payment percentages; help develop trust distribution procedures; expert on liabilities for insurance litigation/negotiations.
Celotex Trust	Forecast liabilities of the Trust; review forecasts made by other experts; calculate pro rata payment percentages; help interpret and apply trust distribution procedures.

F. Claimants Committees in Bankruptcy, other litigation.

Committee	Description of Activity
AC&S A. P. Green Armstrong A. P. Green Artra Babcock and Wilcox Burns and Roe Celotex & Carey Canada Dresser Industries Eagle-Picher Flintkote J. T. Thorpe Federal Mogul Fuller Austin G. I. Industries (GAF) Hillsborough Holding H. K. Porter Kaiser Aluminum Keene Mac Arthur Narco Industries National Gypsum Oglebay Norton Pittsburgh Corning Plibrico Quigley Raymark Shook and Fletcher Skinner Engine U S Gypsum Wallace and Gale W. R. Grace	Forecast liabilities of the debtor; review forecasts made by other experts; calculate pro rata payment percentages; help develop trust distribution procedures; expert on liabilities for insurance litigation/negotiations.

4. Responses to Questions of Senator Richard J. Durbin

Question 1. Now that CBO has released a more up-to-date, year by year and category by category estimate, what is your view on their latest assumptions and projections?

I believe CBO's forecasts are too low, for three main reasons. First, as CBO itself acknowledges, CBO's forecasts ignore the added liability from six different factors that will increase the Fund's claims costs over the amount that CBO forecasts. CBO's forecast would be significantly greater had it included costs resulting from each of these factors Second, CBO significantly undercounts the Fund's costs of paying initial, pending claims by ignoring actual claims that have been filed against asbestos defendants during the last three years and by assuming, impossibly, that the Fund will start next month, in January 2006. Third CBO's assumptions about the number and disease distribution of claims, which it apparently took from Navigant Consulting, analysts for proponents of S.852, produce liability forecasts that are far lower than the independent, contemporaneous forecasts made by Tillinghast for the Manville Trust. Not only would CBO have produce higher projections of the Fund's liability had it used the Tillinghast/Manville forecasts, but its projections would have been more credible, because unlike CBO and Navigant, Tillinghast made 15 different forecasts for Manville using a range of assumptions, each of which resulted in greater liability projections than what CBO forecast.

CBO Assumptions. CBO acknowledges that its $120 to $150 billion forecast is an incomplete under-estimate of the liability costs of S.852 (Douglas Holtz-Eakin letter to Honorable Arlen Specter, December 19, 2005, p. 3). CBO states that its forecast excludes "(a) number of ... features (that) could add to the cost of the legislation," because CBO "could not estimate any costs or savings that might result from (those) features or consequences of the legislation" (Ibid). CBO identifies only one feature that might reduce costs: the possibility that medical studies required by the legislation might preclude compensation for some claimants. On the other hand, CBO identifies "(a) number of those features (that) could add to the cost of the legislation," which "CBO's estimate does not include":

- "potential claims by individuals with older, so-called dormant, asbestos claims pending in the court system who might seek additional compensation from the fund,
- "possible claims by family members who were exposed to asbestos,
- "the costs of any exceptional medical claims that could be made under the bill,
- "the potential costs for residents of other areas of the country who might be deemed eligible to receive the same special treatment given to the residents of Libby, Montana under the legislation,
- "the impact on costs of allowing CT scans to serve as documentation of pleural abnormalities."

Each of these items will result in additional liabilities. One feature, the expanded use of CT scans, is likely to increase greatly the Fund's payment costs by documenting asbestosis and/or pleural disease in many more victims of lung cancers than have been assumed in current forecasts. Together the effects of all of these features would add significantly to CBO's $120 to $150 billion forecast.

CBO also states explicitly that it accepts the Bates White report's warning "that the financial incentives created by the bill could lead to substantial number claimants with disease levels VII and VI," lung cancer and other cancer claims that would qualify for significant payments under S.852 (Ibid, p. 2). CBO agrees that these additional claims "pose potential risks to the financial viability of the asbestos trust fund that S.852 would establish" and that "(t)hose risks are real"

(Ibid), although CBO does not agree that that added liability will be as great as Bates White foresee (Ibid). But again CBO did not increase its $120 to $150 billion forecast to include these additional costs that it anticipates.

CBO acknowledged that it had excluded from its forecasts at least six issues that "could add to the cost of the legislation" creating "real risk" "to the financial viability of the asbestos trust fund" (Ibid, pp. 2-3), because CBO felt unable to estimate the costs of those issues. As I testified in November, CBO's forecasts also grossly underestimate the costs and risk of the S.852 fund because those forecasts are based on a series of improbable or impossible errors:

- that the Fund will start in January 2005,
- that only 22,000 of the 240,000 new asbestos claims that arose during 2003 to 2005,
- that only 15% of nonmalignant claimants would qualify for compensation in contrast to the greater percentages assumed by other analysts, particularly Tillinghast in its forecasts for the Manville Trust,
- that only 41,422 mesothelioma claims will be filed with the the S.852 fund in contrast to the 69,776 mesothelioma claims using Tillinghast's forecasts for the Manville Trust.

If CBO had accepted the more plausible assumptions that are actually used to forecast liabilities of the Manville Trust, the total cost of valid S.852 claims would have increased to $213 billion and interest costs to $63 billion.

Tillinghast Projections. The Manville Trust hired Tillinghast to do future claims projections so that the Manville Trustees could evaluate the payment percentage to claimants. Tillinghast's work produced 14 alternative Manville claim filing scenarios that differed with regard to the total number of future claims and their distributions across disease categories. Tillinghast also produced a preferred forecast, a 15th scenario which was the weighted average of the 14 scenarios weighted by Tillinghast's and Manville's estimates of probabilities for each scenario.

Tillinghast forecasts a higher percentage and greater number of compensable cancers than CBO used in its forecasts. Averaging across all 14 of the alternative scenarios, 9.7 percent of all claims are cancers and 5.3 percent are mesothelioma claims, which would be compensable under S.852 (excluding lung cancer claims that do not have sufficient exposure or do not have asbestosis or pleural disease). Both for mesotheliomas and all cancers, Tillinghast forecasts more than half again as many claims as CBO. With a value for mesothelioma claims of $1.1 million under S.852, this difference in the two forecasts of mesothelioma--2.9 percent as a percent of all claims according to CBO versus 5.3 percent according to Tillinghast--results in sharply different forecast liabilities for the S.852 fund. The Tillinghast forecast alternatives result in 69,000 to 90,000 mesothelioma claims as compared to CBO's forecast of 41,422. Only 5,000 of these differences in forecast mesothelioma claims result from increasing the count of pending claims for 2003-2005 filings that CBO had omitted. Most of the differences result from Tillinghast's greater forecasts of future mesothelioma claims.

The difference between the CBO forecast of 41,422 mesothelioma claims and the Manville "most likely" case of 69,776 mesothelioma claims cannot be reconciled by the differences between exposure and medical qualification criteria under the Manville 2002 TDP and those of S.852. The mesothelioma criteria are the same in both regimes and the asbestos exposure requirements are considerably easier under S.852 so that S.852 claims forecasts should be greater than those for the Manville Trust. Rather the differences result simply because CBO has forecast far fewer mesothelioma claims than Tillinghast.

Question 2. Please compare your future mesothelioma projections with the CBO's, Tillinghast's (adjust this number to assume Manville estimates only cover 90% of the population, Bates White's, and the figures set forth in table 2-3 on page 18 of the 2005 Rand Asbestos Litigation Report. Please explain your methodology for future mesothelioma claims.

The table below indicates the number of mesothelioma claims predicted for the National Fund. The CBO number is far below numbers provided by any of the sources considered. RAND, for example, chose to count total mesothelioma cases rather than filings--89,305, which is more than twice the number that CBO forecasts. If RAND's number is correct, CBO would be forecasting that less than half of persons with mesothelioma would file for compensation under S.852--more than 48,000 mesothelioma victims who could be compensated under the Fund at a total cost of over $50 billion would choose not to file. Similarly, in forecasts based on each of the Tillinghast scenarios, the cost of paying mesothelioma claims would exceed CBO's estimate by over $30 billion. The greater liability for mesothelioma claims for each of these alternative forecasts would push the CBO forecasts well beyond the range of revenues available under S.852.

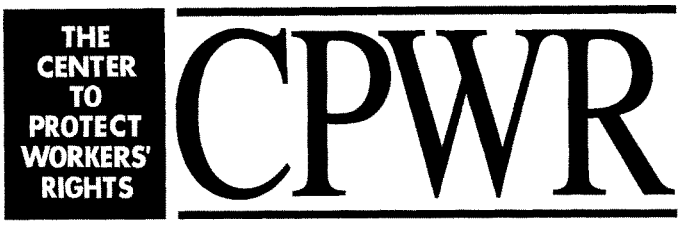
Source	Number of Claims	Total Payment	Excess Over CBO
CBO	41,422	$45.6	..
Tillinghast 01	69,190	76.1	$30.5
Tillinghast 02	67,902	74.7	29.1
Tillinghast 03	69,359	76.3	30.7
Tillinghast 04	68,188	75.0	29.4
Tillinghast 05	68,414	75.3	29.7
Tillinghast 06	68,459	75.3	29.7
Tillinghast 07	69,543	76.5	30.9
Tillinghast 08	68,381	75.2	29.6
Tillinghast 09	69,778	76.8	31.2
Tillinghast 10	69,585	76.5	30.9
Tillinghast 11	70,235	77.3	31.7
Tillinghast 12	69,060	76.0	30.4
Tillinghast 13	86,200	94.8	49.2
Tillinghast 14	87,374	96.1	50.5
Tillinghast wtd	69,776	76.8	31.2
Bates-White	49,000	53.9	8.3
Rand@100%	89,305	98.2	52.6
Rand@95%	84,840	93.3	47.7
Rand@90%	80,374	88.4	42.8
LAS@95%	69,482	76.4	30.8

Notes: CBO source is November 16, 2005 letter from Douglas Holtz-Eakin to Honorable Arlen Specter. For each of Tillinghast's 15 forecasts, the number of mesothelioma claims is the total number of future domestic mesothelioma claims forecast to be filed after 2005 scaled up by 1/.90 based on testimony by Lederer that Manville sees only 90 percent of the filed mesothelioma claims, plus the number of mesothelioma claims among the 300,000 claims pending as of 12/31/02 and among claims filed during 2003 to 2005 using Tillinghast's estimate of mesothelioma claims as a percent of all filed claims. Rand's count of 89,305, taken from Table 2.3 of its report, is based on a recent study by Price and Ware (2004). These counts are adjusted to claims under alternative assumptions of claiming rates for mesothelioma. The LAS numbers are based on Nicholson's projections of mesothelioma deaths, assuming that 95 percent of those deaths result in filings against the National Fund.

Mesothelioma claims have little difficulty qualifying under S.852. Because their only known cause is asbestos exposure, a claimant does not have to prove significant asbestos exposure or a minimum weighted years of exposure. And, unlike the current litigation system, the claimant under S.852 is not required to prove exposure to any particular defendant's product, only that he/she was exposed to asbestos. The claims are worth $1.1 million each. Once word gets out about the availability of funds, it is plausible that almost every mesothelioma victims will file with the National Fund. On the other hand, there is no credibility to CBO's assumption that less than half of mesothelioma victims would file claims with the S.852 Fund (41,422 claims according to CBO divided by 89,305 mesothelioma victims according to RAND). Right now about 80 percent of mesothelioma victims file claims with the Manville Trust even though they are paid about $20,000 by Manville.

Under some scenarios on the table above, S.852 payments to mesothelioma claimants could reach as high as $96 billion (even before taking the required inflation adjustment into account). Of

CBO's estimate of $120 to $150 million in claims payments, only about $46 billion is forecast to be paid to mesothelioma claimants. If CBO's forecasts were increased simply to take into account any of these more reasonable estimates of the number of S.852 mesothelioma claims, CBO would forecast that the Fund's indemnity costs would exceed the maximum $140 billion in revenue even before accounting for the Fund's interest and administrative costs.



8484 Georgia Ave, Silver Spring, MD 20910 301-578-8500

December 20, 2005

Senator Arlen Specter
Chairman, Committee on the Judiciary
Washington DC, 20510-6275

Dear Senator Specter;

Please find attached answers to written questions from committee members regarding the Judiciary Committee hearing regarding "Recent Developments in Assessing Future Asbestos Claims Under the FAIR Act", November 17th 2005.

Sincerely,

Laura Welch, MD, FACP, FACOEM
Medical Director

Written Questions for the Record
Hearing on "Recent Developments in Assessing Future Asbestos Claims Under the FAIR Act", November 17th 2005

Questions from Senator John Cornyn:

In testimony, you have stated:

One of the key conclusions of this report is that compensating lung cancers among individuals with pleural scarring will cause the trust to fail. However, individuals who have lung cancer with pleural plaque in combination with substantial occupational exposure to asbestos must be compensated under this trust fund. These are asbestos-related lung cancers; the scientific literature is very clear on this. If current level of the trust is insufficient to compensate these individuals, we must increase the funding. Eliminating this group of workers from compensation under the trust would undermine the principles on which the trust is founded.

1. *It seems that while you take issue with extent of Bates and White's conclusions, that you concede that the likely pool of claimants is difficult to predict, is large, and is greater than Dr. Nicholson's famous report. Is that correct?*

Your conclusion is not correct, since the entry criteria to be a claimant under this trust fund for lung cancer differ significantly from what Dr. Nicholson used to classify a worker as exposed to asbestos. There are other occupations with asbestos exposure that were not included in Dr. Nicholson's estimates, but I cannot tell you how many of them could be claimants for the lung cancer levels.

In fact, only a subset of the Nicholson population would meet the weighted years requirement in S852. Nicholson defines a "lower risk population" as those with two months or less of work in manufacturing or insulation work; he pegs the exposure at 2-3 f-yr/ml, and puts 8.7 million of his total population of 27.5 million in this group. This leaves 18.8 million persons in 1982 with exposures over two months in high risk jobs, or exposures over 2-3 f-yr/ml.

In contrast, S 852 requires 12 weighted years of asbestos exposure to qualify for level VII, lung cancer with pleural scarring. For an insulator in Nicholson's population, that would equate to 3 years of work. If we use Nicholson's estimate of an exposure of 2-3 f-yr/ml over a two month period, 12 weighted years is almost 20 times higher, and equates to 36-54 f-yr/ml. It is clear that only a subset of the 18.8 million would have received this level of exposure.

2. *You claim there is not sufficient data to estimate the prevalence of pleural changes in the population at risk – yet you also conclude that the Bates White estimate of 10 to 25% is too high. How do you reach this conclusion?*

Without access to all of Dr. Bates model, I don't know precisely how he arrived at this estimate. He does cite a study using x-rays from the National Health and Nutrition

Survey (Rogan 2002) which reports that 4% of the US population aged 34 to 74 had pleural thickening. This 4% includes the groups of workers who have a very high prevalence of pleural disease, such as insulators and former shipyard workers; it is not the rate in an unexposed individuals. Dr. Bates uses this study to represent the rate of pleural disease in his low exposure group, but that is not appropriate. It is rather an average of the prevalence of disease in low, medium, high and no exposure groups weighted for the distribution of those groups in the US population.

The studies Dr. Bates cites to support his estimate of the prevalence of pleural disease in his high exposure group were studies done between 1965 and 1990, with the study of insulators in 1965. These studies are too old to represent the prevalence of pleural disease in workers alive today. For example, the rate of isolated pleural disease in construction workers screened between 1996 and 2001 was 20% [1]. The mean age of these workers was 58 (standard deviation 12.7 years), with a mean number of 26 years worked in construction. These workers would be considered to have had high exposure under any definitions. Therefore 20% could represent the rate for Dr. Bates high exposure group. Dr. Bates assigned a 22% prevalence to his medium exposure group; this is clearly too high based on current research. He assigns a 7% prevalence to his low exposure group; I cannot comment on the accuracy of this estimate, since I don't know which occupations are included. But given the large size of his eligible population, 27 million, the average prevalence of pleural disease across all occupations should be closer to the 4% number.

The prevalence of pleural disease is not actually very important, since it is alone does not entitle a worker to compensation under the fund. The claimant must have pleural disease and meet the weighted years requirements for that level. Dr. Bates apparently assumes that having pleural disease is equivalent to meeting the weighted years requirement. However, based on existing epidemiological data, there will be many workers with pleural disease who do not meet the weighted years requirement.

3. *Some questions have been raised with respect to the value we should place on testimony, valuations or presentations given certain "biases" that may exist based on who may be paying for services. Just so we can be clear, can you please provide for the Committee a list of clients for whom you or your employer have provided services with regard to Asbestos, a list of any organizations for whom you have performed work pro bono with respect to Asbestos – and specifically any information about the nature of your work or the work of your employer in the past with respect to Asbestos projections, assessments, valuations or any related work?*

My employer, The Center to Protect Workers Rights (CPWR) provides technical consultation and training for the construction industry, and it is very likely that some of that work has included information on the health effects of asbestos or proper work practices when working with asbestos. However, CPWR has not worked for a specific client in any area related to asbestos projections, assessments, or valuations.

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[1] Dement J, Welch, L, Bingham E, Cameron B, Rice C, Quinn P, Ringen K. Surveillance of Respiratory Diseases among Construction and Trade Workers at Department Of Energy Nuclear Sites. Am J Ind Med. 2003 Jun;43(6):559-73

I personally have served as an expert witness on behalf of individuals with asbestos related diseases, testifying in deposition or in court several times each year for the past 20 years. My testimony did not directly address the monetary value of any of the cases. I have also testified on behalf of the Committee of Asbestos Personal Injury Claimants in several bankruptcy proceedings. My testimony concerned asbestos-related disease, and did not specifically address asbestos projections, assessments, or valuations.

Questions from Senator Joseph R. Biden, Jr.

1. *Do you view the medical criteria included in this bill as adequate to properly compensate victims of asbestos?*

The medical criteria that were originally agreed upon by the Judiciary Committee in 20003 in conjunction with S. 1125 were developed carefully, and in a bipartisan manner, and were based on sound science. The criteria included compromises by all parties that limit compensation to a subset of all the cases of pleural plaque, asbestosis, lung cancer and other cancers that occur in asbestos-exposed groups. In my view those criteria were conservative. This year, during the mark-up on the current bill, S. 852, those criteria were changed to be more restrictive, in particular eliminating the category of lung cancers with significant asbestos exposure, but no x-ray changes. This change is contrary to the scientific evidence and will exclude many victims of asbestos related lung cancers from being compensated.

The exposure required through the weighted years is a high bar. This is a more stringent requirement than what is needed for the existing bankruptcy trusts, and more than what is required for compensation in countries that have set a similar standard.

It is important to note that the medical criteria in the bill for the different disease levels are presumptive criteria. But in addition, those individuals with an asbestos-related cancer who do not meet the weighted years criteria, or other criteria, can apply for review by a medical panel as an exceptional case. There will be clear cut cases with asbestos-related disease who do not meet the presumptions in the bill for all levels, and the medical review is a very important component of the trust fund to ensure fairness.

2. *If the bill were modified to meet your concerns on the medical criteria, do you believe the projections for numbers of claims and value of the fund would rise or fall?*

Current projections for the trust fund do not include claimants with lung cancer who do not have pleural plaque or asbestosis. If the criteria are modified to again include this category of cancer, the number of claims to the fund would increase. As I noted in my testimony, there is uncertainty in the projections, and the trust fund must have sufficient resources to accommodate additional claimants if the projections are too low.

SUBMISSIONS FOR THE RECORD

Analysis of S. 852 Fairness in Asbestos Injury Resolution (FAIR) Act

September 2005

Prepared by Bates White, LLC

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http://www.bateswhite.com/news/pdf/2005_Bates_FAIR_Act_report.pdf

I. Executive summary

- Bates White, LLC (Bates White) is an economic consulting firm with extensive experience in statistics, econometric modeling, and economic analysis. We provide senior management with sensitivity analyses tailored to their assessment of major issues, while incorporating their overall attitudes toward risk. As part of these analyses, Bates White has led the development of several highly sophisticated, customized analytical tools that estimate clients' future asbestos liability from personal injury and property damage lawsuits.
- Bates White examined the economic viability of the Trust Fund that the Fairness in Asbestos Injury Resolution (FAIR) Act of 2005, Senate Bill 852, would create. We conclude that the Trust Fund proposed under S. 852 is not financially viable. The Fund would create entitlements to pending and future claimants that substantially exceed the $140 billion in receipts specified in S. 852.
- Two categories of claimants pose the greatest threat to the Fund's financial viability.
  - The FAIR Act would create entitlements for many individuals with lung and other cancers who were not compensated in the historical tort environment. This entitlement likely would result in at least a ten-fold increase in the number of lung and other cancer claims relative to the tort system.
  - The FAIR Act also could revive dormant claims, which have settled with most but not all defendants. These individuals could recover the difference between amounts previously collected in the tort system and the award levels specified in S. 852.
- Due to the foregoing two factors, even under conservative assumptions, S. 852 would create entitlements valued at $300 billion. The statutory funding level of the national Trust is $140 billion, leaving a $160 billion shortfall. As a result of the shortfall, the Trust Fund would sunset within three years of its inception with a debt of more than $45 billion.
- Relative to the conservative scenario of $300 billion, we quantify the potential impact of four additional risk factors. In aggregate, these additional factors could increase the entitlements to $695 billion.
  - More than 3.5 million individuals who satisfy the occupational exposure criteria of S. 852 will develop lung and other cancers between 2001 and 2055. Asbestos is only

one of many risk factors that may be causally related to these malignant conditions. As a result, very few individuals with lung and other cancers historically have had a viable claim in the tort system. In contrast to the tort system, the FAIR Act would compensate lung and other cancer patients who can demonstrate pleural changes. Both the medical literature and historical claims data from the Manville Trust suggest that the prevalence of pleural changes in the asbestos-exposed population is likely to be in the 10 percent to 25 percent range. In our conservative scenario we use 10 percent. Increasing the prevalence of pleural changes to the high end of the likely range of 25 percent raises the entitlements by $235 billion.

- Under reasonable assumptions, the size of the population in 2000 that would satisfy the occupational exposure criteria of S. 852 ranges from 27 million to 34 million. In our conservative scenario we use the lower end of this range. Increasing the size of the occupationally exposed population to 34 million could enlarge the entitlements by $90 billion, solely by raising the number of lung and other cancer claimants.
- Family members of eligible workers may be eligible for compensation under the take-home provision of the FAIR Act. In our conservative scenario we do not account for this. If eligible, spouses alone could enlarge the entitlements by $45 billion, solely by raising the number of lung and other cancer claimants.
- S. 852 may compensate dormant claimants who have settled with most but not all defendants. If dormant tort claimants (excluded under the conservative scenario) are eligible, they could increase the entitlements by $25 billion. This money would be born entirely in the first few years of the Fund's operation.

- Even under conservative assumptions, for the Trust Fund to be viable only 41 percent of future eligible claimants can file, far below the claiming rate of many asbestos torts. Depending on the realization of the four additional risk factors detailed above, the threshold claiming rate could fall as low as 14 percent.
- Our analysis differs from that of the Congressional Budget Office (CBO) in three key ways.
  - CBO assumes individuals with lung and other cancers would file claims under S. 852 at the same rate they filed claims in the tort system. However, S. 852 replaces the adversarial environment of the tort system with an administrative process and an

average entitlement of about $500,000 for qualifying individuals with lung and other cancers. In order for CBO to be correct, more than 85 percent of qualifying individuals with lung and other cancers would have to decide not to collect their $500,000 entitlement.

- We quantify the potential impacts of dormant tort claims and take-home exposure. CBO does not account for either of these factors.
- We estimate there will be fewer impaired non-malignant claimants than CBO. CBO based their estimate on the experience of the Manville Trust. We base our estimate on the Manville Trust audit data, which results in half the number of impaired non-malignant claims estimated by CBO.

- Likely entitlements that S. 852 would create for individuals impaired by naturally occurring asbestos or eligible claimants from Libby, Montana could further increase the shortfall of the Fund. Neither our study nor CBO's study account for these provisions.

II. Bates White, LLC

(1) Bates White, LLC (Bates White) is a national consulting firm offering services in economics, finance, and business analytics to leading law firms, FORTUNE 500 companies, and government agencies. We provide our clients with a unique combination of quantitative and analytical expertise, and an understanding of business issues across a range of industries.

(2) The Bates White Environmental & Product Liability (EPL) practice offers economic consulting, litigation support, class certification, and liability estimation services. Our systematic approach combines scientific and legal expertise with advanced analytical tools to help clients understand and quantify potential liabilities. Our methodologies and expertise evolved from our extensive experience in asbestos, where we are a recognized industry thought leader.

(3) In the context of asbestos, Bates White provides expert testimony in both bankruptcy and coverage litigation, as well as expert opinions with regard to insurance valuation, due diligence evaluations, and financial reporting services. Through the course of this work, Bates White has seen claims data from numerous defendants and insurance companies. The knowledge gained across all of those matters has been invaluable in assessing the financial viability of S. 852.

(4) As part of our work in asbestos-related matters, Bates White has led the development of several highly sophisticated, customized analytical tools that estimate clients' future asbestos liability from personal injury and property damage lawsuits. In the early 1990s, Dr. Charles Bates developed a computer model of the incidence of asbestos-related malignant diseases.[1] Over the years, Bates White has performed ongoing research to improve this model. This state-of-the-art model became the industry standard. More recently, Bates White has pioneered research on the recruitment of non-malignant claimants, and challenged epidemiological-based forecasts of future non-malignant claims.

(5) In addition to research on asbestos matters, Bates White has analyzed the historical U.S. usage of tobacco from 1920 through 2002. This research provides us the smoking history of potential lung cancer patients who could qualify under S. 852.

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[1] Referred to as the "KPMG Incidence model," this model was developed in consultation with Dr. William Nicholson of the Mt. Sinai School of Public Health under the direction of Dr. Thomas Vasquez of KPMG.

III. Financial viability of the national trust

III.1. Summary

(6) Bates White examined the economic viability of the Trust Fund that the Fairness in Asbestos Injury Resolution (FAIR) Act of 2005, Senate Bill 852, would create. We conclude that the Trust Fund proposed under S. 852 is not financially viable. The Fund would create entitlements to pending and future claimants that substantially exceed the $140 billion in receipts specified in S. 852.

(7) Two categories of claimants pose the greatest threat to the Fund's financial viability. First, S. 852 would create an entitlement for many individuals with lung and other cancers who were not compensated in the historical tort environment. This entitlement likely would result in at least a ten-fold increase in the number of lung and other cancer claims relative to the tort system. Second, the Act may compensate dormant claimants who have settled with most but not all defendants. The cost of these dormant claimants would be born entirely in the first few years of the Fund's operation.

(8) More than 3.5 million individuals who satisfy the occupational exposure criteria of S. 852 will develop lung and other cancers between 2001 and 2055. Asbestos is only one of many risk factors that may be causally related to these malignant conditions. As a result, very few individuals with lung and other cancers were compensated in the historical tort environment. In contrast to the tort system, S. 852 would compensate lung and other cancer patients who can demonstrate pleural changes. Pleural changes are indications of abnormalities to the thin linings of the lung that may be associated with asbestos exposure. They are different from asbestosis, which is not a form of pleural change but a disease of the lung itself. Both the medical literature and historical claims data from the Manville Trust suggest that the prevalence of pleural changes in the asbestos-exposed population is likely to be in the 10 percent to 25 percent range. This level of prevalence translates into 350,000 to 875,000 individuals with lung and other cancers who are entitled to compensation under S. 852.

(9) Most asbestos claimants in the tort system name numerous defendants in their complaints, as many as 50 or 100. Through time, many of these defendants settle and others are dismissed, but a few apparently remain unresolved indefinitely. Furthermore, many defendants view claims that remain unresolved for an extended period, such as seven to 10 years, as dormant or inactive; they never expect to hear from that plaintiff again. S. 852 may compensate these dormant claimants in exactly the same manner as active tort claims.

(10) We assess the financial viability of the Trust in two stages. First, we define a conservative scenario that understates the entitlement that would be created. In this conservative scenario, we assume a 10 percent prevalence of pleural changes, exclude dormant tort claimants, and ignore other sources of claimants. Second, we assess the potential increase in the entitlement associated with each of four additional risk factors—greater prevalence of pleural changes, larger exposed population, family members of eligible individuals, and dormant tort claimants.

(11) Under the conservative scenario, S. 852 would create entitlements valued at $300 billion. The statutory funding level of the national Trust is $140 billion, leaving a $160 billion shortfall. As a result of the shortfall, the Trust Fund would sunset within three years of its inception with a debt of more than $45 billion. Accounting for the additional risk factors could raise the entitlement to $695 billion.

(12) We have not attempted to quantify the entitlement associated with three types of claimants—individuals impaired by naturally occurring asbestos, claimants from Libby, Montana, and unimpaired non-malignant claimants. Unimpaired non-malignant claimants fall into Level I and may seek reimbursement for the difference between the cost of medical monitoring covered by a claimant's health insurance and a claimant's out-of-pocket expense for monitoring. These individuals are not likely to seek medical treatment or compensation from the Fund because they are unimpaired. Furthermore, the enactment of S. 852 would eliminate the incentive to recruit these unimpaired individuals.

(13) The remainder of Section III.1 provides a more detailed description of the conservative scenario, followed by a synopsis of the additional risk factors facing the proposed Trust. Section III.2 provides an overview of the Bates White estimation methodology. Then, Section III.3 explains where our analysis differs from the August 25, 2005 CBO study.

III.1.1. Conservative scenario

(14) The conservative scenario invokes the following assumptions, all of which lower the estimated entitlement:

- Set the prevalence of pleural changes to 10 percent, the low end supported by the medical literature

- Exclude dormant tort claimants, modeled as claims filed prior to 2000
- Prohibit family members of eligible individuals
- Estimate the size of the exposed population at the low end supported by the economic literature
- Omit environmental asbestos-exposure claims and claimants from Libby, Montana

(15) Under these assumptions, S. 852 would create an entitlement of $300 billion. That $300 billion would be spread across 560,000 individuals at an average of $525,000 per person. In order for the Trust Fund to be viable, 59 percent of qualifying individuals would have to decide not to collect their $525,000 entitlement.

(16) Exhibit 1 displays the conservative scenario disaggregated into the disease categories contained in S. 852—mesothelioma, lung cancer categories, other cancer, and non-malignant categories. Mesothelioma accounts for nine percent of the claimants and 22 percent of the aggregate entitlement. Lung cancer in conjunction with asbestosis, Level VIII, accounts for 12 percent of the claimants and 20 percent of the aggregate entitlement. Impaired non-malignant conditions (categories II-V) account for 17 percent of the claimants and five percent of the aggregate entitlement.

Exhibit 1: Conservative scenario entitlements by disease category

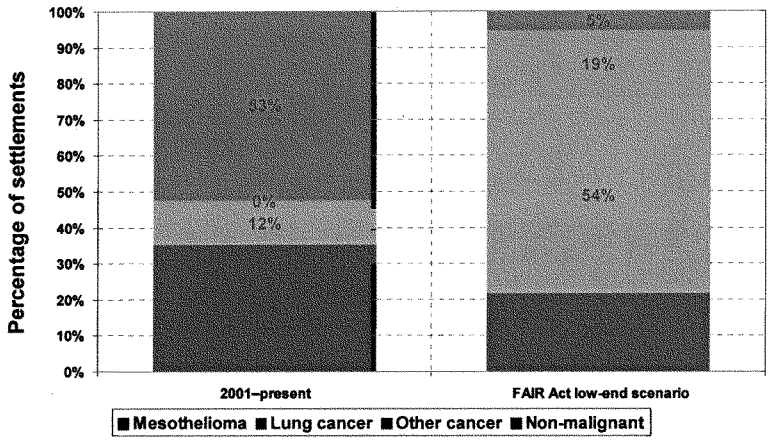
Disease	Category	Count	Dollars
Mesothelioma	IX	49,000	$64 B
Lung cancer	VIII	67,000	$58 B
	VII	139,000	$102 B
Other cancer	VI	212,000	$55 B
Non-malignant	II–V	94,000	$16 B
	I	N/A	$0 B
Administrative costs	N/A	N/A	$5 B
All		561,000	$300 B

(17) The financial viability of the national Trust depends crucially on the number of claimants in categories VI and VII. Level VI covers individuals diagnosed with other cancers (colorectal, laryngeal, esophageal, pharyngeal, and stomach) who also display pleural changes. Level VII covers individuals diagnosed with lung cancer who also display pleural changes. Taken

together, these two categories represent half of all outflows and are the primary reason the national Trust would sunset in just a few years.

(18) Such a large share of payments allocated to individuals with lung and other cancers is a major departure from the tort system. Exhibit 2 compares the allocation of payments by disease under S. 852 and the recent tort system. Under S. 852, 73 percent of the entitlements go to individuals with lung and other cancers, while these same claimants received about 12 percent of total settlement payments in the tort system. The reason for the low share of settlement payments in the tort system is that lung and other cancers lack the strong epidemiological link that mesothelioma has to asbestos. Furthermore, individuals with these cancers are difficult to recruit.

Exhibit 2: Payments by disease under S. 852 and in the tort system



(19) Claimants with mesothelioma, a rapidly fatal cancer, received the highest settlement values historically. The high compensation is attributable to the strong epidemiological link between mesothelioma and asbestos exposure. Thus, even though mesothelioma claimants represent fewer than five percent of the claimants, they have received 35 percent of total settlements payments in the tort system.

(20) In contrast to mesothelioma, non-malignant claimants represent over 90 percent of claimants, yet have received just 53 percent of total settlement payments. The vast majority of these non-malignant claimants is unimpaired and receives relatively small amounts for their claims. However, they have been inexpensive to recruit using mass screening techniques and, because of their large numbers, collectively have received a substantial share of historical settlements.

(21) As mentioned above, potential claimants for lung and other cancers lack the strong epidemiological link to asbestos that mesothelioma has. Furthermore, a number of other substantial risk factors exists for these cancers, such as smoking. Also, these claims are much more expensive to recruit and prosecute as mass recruiting techniques are not cost effective for cancer claims. Under the proposed legislation, however, all malignant conditions receive compensation with equal ease, provided they meet the medical and exposure criteria.

III.1.2. Additional risk factors

(22) The conservative scenario likely undervalues the entitlement that S. 852 would create. In particular, the conservative scenario probably understates both the prevalence of pleural changes and the size of the eligible population. Furthermore, it ignores the provisions in S. 852 for family members of eligible workers (take-home exposure), dormant tort claims, environmental asbestos exposure, and claimants from Libby, Montana. We quantified the potential incremental entitlement for each of these risk factors, except environmental asbestos exposure and Libby, Montana.

- $235 billion—greater prevalence of pleural changes among the eligible population
- $ 90 billion—larger eligible population
- $ 45 billion—family members of eligible workers (take-home exposure)
- $ 25 billion—dormant tort claimants

(23) In aggregate, these additional factors could increase the entitlements to $695 billion. Exhibit 3 displays the number of claims and associated entitlements disaggregated by disease categories should half of the potential risk factors materialize. Under these assumptions, S. 852 would create an entitlement of $495 billion. That $495 billion would be spread across one million individuals, averaging $500,000 per person. In order for the Trust Fund to be

viable, more than 70 percent of qualifying individuals would have to decide not to collect their $500,000 entitlement.

Exhibit 3: Estimated entitlement should half of the potential risk factors materialize

Disease	Category	Count	Dollars
Mesothelioma	IX	56,000	$67 B
Lung cancer	VIII	80,000	$65 B
	VII	309,000	$222 B
Other cancer	VI	455,000	$118 B
Non-malignant	II–V	106,000	$17 B
	I	N/A	$0 B
Administrative costs	N/A	N/A	$5 B
All		1,006,000	$495 B

(24) The remainder of this section provides a brief review of each of these risk factors. The appendices contain detailed explanations of both the methodologies and the results.

III.1.2.1. The prevalence of pleural changes among the eligible population

(25) Whether occupationally exposed workers with lung or other cancers qualify for compensation under S. 852 depends on the presence or absence of pleural changes. The medical research on pleural changes does not directly quantify the prevalence of pleural changes in the S. 852 eligible population. Instead, the literature provides estimates in specific occupations or samples of convenience (e.g., the hospitalized population). This research estimates the prevalence to be as high as 90 percent for asbestos insulation workers with 30 years of prior exposure and as low as one percent for the general population.[2]

(26) Further, the estimates reported in the literature likely understate the presence of pleural changes in the eligible population. First, most of the studies are conducted on active workers who are, on average, younger than the S. 852 eligible population. Given the broad agreement in the literature that pleural changes related to asbestos form only many years after the initial exposure, pleural changes should be more prevalent in an older population. Second, most of

[2] The appendix summarizes the medical research on the prevalence of pleural changes.

the medical studies rely on x-rays to assess the prevalence of pleural changes. However, studies demonstrate that x-rays do not reveal all pleural changes. For example, CT scans and autopsies pick up pleural changes that are missed on x-rays.

(27) Accounting for the limitations of these studies, the prevalence of pleural changes in the eligible population is likely to be in the 10 percent to 25 percent range. Further, this range is supported by historical claims data from the Manville Trust.[3]

(28) In our conservative scenario we use 10 percent. Increasing the prevalence of pleural changes to 25 percent, the high end of the likely range, raises the entitlements by $235 billion.

III.1.2.2. The size of the eligible population

(29) Under reasonable assumptions, the size of the population in 2000 that would satisfy the occupational exposure criteria of S. 852 ranges from 27 million to 34 million. The combination of U.S. Census data and Bureau of Labor Statistics (BLS) data provide estimates of the occupationally exposed population in any given year. The range in the potentially exposed population stems from uncertainty concerning occupational mobility.

(30) Over time, many workers move from one occupation to another. In particular, individuals enter and exit occupations involving asbestos exposure. The economic literature on occupational mobility indicates that in any given year at least two percent and, more likely, five percent of occupationally exposed workers move to white-collar jobs. As the rate of movement across occupations increases, more individuals will work in an asbestos-related occupation.

(31) In our conservative scenario we use the lower end of this range, 27 million people. Increasing the size of the occupationally exposed population to 34 million people could increase the entitlements by $90 billion, solely by raising the number of lung and other cancer claimants.

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[3] The appendix summarizes the analysis of the Manville Trust data in regards to the prevalence of pleural changes.

III.1.2.3. Family members of eligible workers (take-home exposure)

(32) Family members of eligible workers may qualify for compensation under the take-home provision of S. 852. The Act imposes three criteria on family members. First, the family member must satisfy the medical criteria. Second, the family member must have lived with the eligible individual during the time that individual was exposed. Third, the family member must pass review by the Physicians Panel. Mandatory review by the Physicians Panel is unique to family members and creates an additional level of uncertainty as to what would happen to these claimants.

(33) We omit take-home exposure in the conservative scenario. If we treat only spouses in the same manner as specified for the qualifying workers themselves, then the take-home exposure provision increases the entitlement $45 billion, solely by raising the number of lung and other cancer claimants.[4] This increase would be larger if we allow other family members to qualify for payment as well.

III.1.2.4. Dormant tort claimants

(34) Most asbestos claimants in the tort system name numerous defendants in their complaints, as many as 50 or 100. Through time, many of these defendants settle and others are dismissed, but a few typically remain unresolved indefinitely. Furthermore, many defendants view claims that remain unresolved for an extended period, such as seven to 10 years, as dormant or inactive; they never expect to hear from that plaintiff again. S. 852 may compensate these dormant claimants in exactly the same manner as active tort claims.

(35) We exclude dormant tort claimants, modeled as claims filed prior to 2000, in the conservative scenario. If dormant claimants are eligible, they could increase the entitlements by $25 billion. Further, this money would be born entirely in the first few years of the Fund's operation.

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[4] We assumed a five percent prevalence of pleural changes for spouses. The appendix reviews the medical literature on the prevalence of pleural changes among the general population, which supports our assumption.

III.1.2.5. Environmental asbestos exposure and claimants from Libby, Montana

(36) Under S. 852, residents of Libby, Montana with qualifying diseases are entitled to compensation from the Fund without having to satisfy the exposure criteria. Depending on the results of an *Agency for Toxic Substances and Disease Registry* study, this provision can be extended to other locations. Further, S. 852 allows a claimant who has been exposed to naturally occurring asbestos to file an exceptional medical claim with the Fund. These provisions could further increase the entitlement created by the FAIR Act. We did not quantify the impact of these additional factors in our study.

III.2. Bates White estimation methodology

(37) The Bates White methodology combines a wide range of data sources and estimation techniques to analyze the financial viability of the national Trust. First, we estimate the number and value of pending claims. Second, we forecast the number and calculate the value of future claims. Third, we compare those claim values against the Trust Fund receipts to assess the financial viability of the Fund.

III.2.1. The number and value of pending claims

(38) As the Congressional Budget Office (CBO) has pointed out, there is no comprehensive information regarding the numbers, types, and outcomes of asbestos claims that individuals have filed. However, there are several sources that allow us to estimate the number of pending claims by disease category, their filing dates, and the awards they collected over time. These data sources include RAND Corporation's estimates, Manville Trust data, and our own in-house data sets.

(39) RAND Corporation provides estimates of annual claim filings through 2002.[5] We extrapolate the RAND estimates to 2005 based on incidence rates from epidemiological models. Then, we disaggregate the three RAND disease categories—mesothelioma, lung and other cancers, and non-malignant—into the S. 852 categories based on Manville Trust data. We utilize Manville data collected under both the 1995 and 2002 Trust Distribution Procedures (TDPs) inclusive of the 1995 TDP audit data.

(40) In lieu of estimating each pending claimant's collateral source compensation (recoveries in the tort system), we estimate average tort recoveries by disease, plaintiff law firm tier, and year of filings. In general, tort recoveries rise with the severity of the alleged disease, the strength of the plaintiff law firm, and the time elapsed since filing.

(41) Finally, we calculate the value of pending claims by subtracting the average collateral source compensation from the schedule value.

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5 RAND Institute for Civil Justice, *Asbestos Exposure*, 2005.

III.2.2. The number and value of future claims

(42) We use three models to estimate the number of future claims—one for mesothelioma, another for lung and other cancers, and a third for impaired non-malignant claims. We model the number of future mesothelioma cases using the historical incidence of mesothelioma and estimates of the exposed population through time. This technique is an updated version of Nicholson's (1982) methodology.[6] This model also estimates the number of excess lung and other cancers caused by asbestos exposure.

(43) S. 852 allows lung and other cancers from all causes to file with the Fund so long as they demonstrate pleural changes. Therefore, we supplement the number of excess cancers with the number of background cancers with coincidental pleural changes. To forecast the number of individuals with lung and other cancers who display coincidental pleural changes, we utilize a model of the U.S. population that tracks occupation, age, smoking status, mortality, cancer incidence, and prevalence of pleural changes. The model starts with the 1950 eligible population that we estimate by combining scientific studies that identify occupations with asbestos exposure and government labor data that provide the number of individuals in these occupations. We advance this population forward in time, taking into account additions to the labor force, mobility in eligible occupations, mortality, smoking behavior, incidence of lung and other cancers, and the prevalence of pleural changes. The model produces an estimate of the number of qualifying lung and other cancers claimants between 2001 and 2055, as well as their smoking history.

(44) We project the number of impaired non-malignant claims in two steps. First, we estimate the number of impaired historical non-malignant claims based on the Manville Trust audit data. Second, we extrapolate the number of impaired non-malignant claims in direct proportion to the size of the alive exposed population.

(45) After calculating the number of eligible future claimants by disease level we calculate the inflation-adjusted total cost of claims in each year. In adjusting for cost-of-living changes, we use CBO's consumer price index projections.

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[6] William J. Nicholson, George Perkel and Irving J. Selikoff, "Occupational exposure to asbestos: population at risk and projected mortality—1980–2030," *American Journal of Industrial Medicine*, 3: 259–311, 1982.

III.2.3. The viability of the national Trust

(46) We compare estimated outflows from the Trust to revenues to assess the financial viability of the Fund. If the Fund is not viable, we compute the shortfall and sunset year.

(47) Outflows include both monies paid to claimants, as well as administrative costs, and debt service. We adopt the administrative cost estimates and start-up time used by CBO and the 10-year treasury rate for debt service as forecast by CBO. Similarly, inflows include both the monies collected and interest earned on surpluses. Again, we adopt the timing of receipts used by CBO and the 10-year treasury rate as forecast by CBO for rate-of-return on investments.

(48) Finally, we compare our entitlement estimates to the Fund's inflows. The national Trust sunsets if the value of unpaid approved claims plus debt exceed the next 10 years' revenues.

III.3. Differences from the August 25, 2005 CBO study

(49) Our analysis differs from that of the Congressional Budget Office (CBO) in three key ways. First, we differ on the number of future lung and other cancer claims. Second, we quantify potential risk factors that were identified, but not assessed by CBO. Third, we estimate there will be fewer impaired non-malignant claimants than CBO.

(50) First, CBO and Bates White employed different assumptions about the fraction of qualified individuals with lung and other cancers who would collect their entitlement. The CBO methodology implicitly assumes individuals with lung and other cancers would file claims under S. 852 at the same rate they filed claims in the tort system. However, S. 852 replaces the adversarial environment of the tort system with an administrative process and an average entitlement of about $500,000 for qualifying individuals with lung and other cancers.[7] In order for CBO to be correct, more than 85 percent of qualifying individuals with lung and other cancers would have to decide not to collect their $500,000 entitlement.

(51) In contrast to CBO, Bates White employed epidemiological models to estimate the number of individuals who would have valid lung and other cancer claims under S. 852. Then, we assessed the maximum number of individuals who could file their claim for the Trust to be solvent.

(52) Second, CBO recognizes potential entitlements for dormant tort claims and take-home exposure, but does not account for either of them in its estimates. Our internal data sources and models of the U.S. population allow us to quantify the potential impacts of these two factors.

(53) Third, we estimate there will be fewer impaired non-malignant claimants than CBO. CBO based their estimate on the experience of the Manville Trust, although the details of that estimate were not available to us. We base our estimate on the Manville Trust audit data, which results in half the number of impaired non-malignant claims estimated by CBO. Further, CBO implicitly assumes that unimpaired non-malignant claims will continue to be

[7] In contrast to S. 852, the Manville Trust payment for lung cancer has been under $10,000 since the 1995 TDP. Similarly, the payment for other cancers has been under $5,000 since the 1995 TDP.

recruited at high rates, which results in $1 billion for medical monitoring of Level I claimants.

(54) With regard to other aspects of S. 852, our estimates and those of CBO are qualitatively similar. In particular, the outlays associated with mesothelioma claims and lung cancer claims with asbestosis are aligned.

(55) In summary, the Fund creates an entitlement for lung and other cancer patients who were not compensated in the historical tort environment and revives dormant tort claims. These two factors account for most of the differences between CBO's finding and our results.

Response to Navigant Consulting, Inc. Commentary

November 2005

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I. Summary

(1) A recent Bates White analysis demonstrates that the Fairness in Asbestos Injury Resolution (FAIR) Act is not financially viable under a variety of scenarios.[1] Navigant Consulting, Inc. ("Navigant") reviewed the Bates White analysis. The majority of Navigant's commentary rests on two incorrect premises.

(2) First, Navigant incorrectly asserts that Bates White overestimates the size of the exposed population. The basis of Navigant's assertion is that the Bates White estimate of the exposed population exceeds the Nicholson *et. al.* (1982) estimate of the exposed population. This observation is correct, but the exposed population is now known to be larger than the population outlined by Nicholson in his study, not the other way around. This is largely attributable to the knowledge that has been developed in the quarter century since Nicholson performed the research resulting in his 1982 publication. In particular, the last 25 years of epidemiological and industrial hygiene research has shown that that there were workers in occupations not included Nicholson's 1982 study that were exposed to asbestos. This fact is consistent with the Manville Trust's claims experience where about half of recent Manville claimants come from non-Nicholson occupations.

(3) Second, Navigant incorrectly asserts that Bates White misapplies epidemiological models to forecast cancer incidence in the population of asbestos exposed workers. The basis of Navigant's assertion is that the Bates White incidence model forecasts more cancers than the Nicholson model. This observation is correct but the difference is not due to our misapplication of epidemiological models. Rather is largely attributable to the fact that the two models answer different questions. Bates White estimates the total incidence of FAIR Act compensable lung and other cancers. In contrast, the Nicholson model estimates the number of cancers that would not have happened but for individuals' exposure to asbestos ("excess cancer"). The FAIR Act would create an entitlement for all lung and other cancers among occupationally eligible individuals with pleural conditions, not just excess cancers within this population.

(4) This report first addresses these two broad topics, and then provides a point-by-point response to each Navigant comment.

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[1] This analysis is available at http://www.bateswhite.com/news/pdf/2005_Bates_FAIR_Act_Report.pdf.

II. Size of the exposed population

(5) Bates White identifies occupations and industries in which a substantial number of workers were exposed to asbestos based on the current state of the epidemiological and industrial hygiene literature. Specifically, we start with the list of occupations contained in Coco and Dosemeci (1999). As part of their research, the authors identify industries and occupations that had asbestos exposure. Where appropriate, we adjust the Cocco and Dosemeci categorizations based upon the epidemiological literature.[2]

(6) To quantify the number of workers in each industry and occupational group, we rely on Census data.[3] The Census provides occupational information for one or five percent of the U.S. population. Due to the large sample size, these data generate the best estimates currently available of the number of workers in each occupation and industry.

(7) Our approach produces a larger estimate of the asbestos-exposed population than Nicholson (1982). This difference is largely attributable to the knowledge that has been developed in the quarter century since Nicholson performed the research resulting in his 1982 publication. In particular, the last 25 years of epidemiological and industrial hygiene research has shown that a number of workers in occupations outside of the Nicholson groups were exposed to asbestos. This finding is consistent with the Manville Trust claims experience where about half of Manville claimants come from non-Nicholson occupations.

(8) To quantify the number of workers, Nicholson relies primarily on Bureau of Labor Statistics (BLS) data to assess the size of the exposed population. BLS is an employer-based survey, which is well known by labor economists to undercount the workforce. For example, Census data record 5.1 million construction workers in 1960. This count is 25 percent greater than the 4.1 million construction workers reported by BLS.

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[2] Other JEM-based articles include:

Burdorf, Ales and Paul Swuste, "An Expert System for the Evaluation of Historical Asbestos Exposure as Diagnostic Criterion in Asbestos-related Diseases," *Annals of Occupational Hygiene*, Vol 43, No. 1, pp. 57-66. 1999.

Kauppinen, K, J. Toikkanen, and E. Pukkala, "From Cross-Tabulations to Multipurpose Exposure Information systems: A New Job Exposure Matrix," *American Journal of Industrial Medicine*, Vol 33, pp. 409-417, 1998.

Rice, C and Ellen F. Heineman, "An Asbestos Job Exposure Matrix to Characterize Fiber Type, Length, and Relative Exposure Intensity," *Applied Occupational and Environmental Hygiene*, Vol 18, pp. 506-512, 2003.

[3] Ruggles, Steven and Matthew Sobek *et al. Integrated Public Use Microdata Series: Version 3.0* Minneapolis: Historical Census Projects, University of Minnesota, 2003. http://www.ipums.org (June 3, 2004)

III. Application of epidemiological models

(9) Navigant notes that the Bates White incidence model forecasts more cancers than the Nicholson model. This observation is correct and largely attributable to the fact that the two models answer different questions. Bates White estimates the total incidence of FAIR Act compensable lung and other cancers. In contrast, the Nicholson model estimates the number of cancers that would not have happened but for individuals' exposure to asbestos ("excess cancer"). The FAIR Act would create an entitlement for all lung and other cancers among occupationally eligible individuals with pleural conditions, not just excess cancers within this population.

(10) Nicholson's model predicts that for each excess other cancer there are more than 50 cases of other cancer caused by factors besides asbestos exposure. Similarly, for each excess lung cancer there are more than 20 cases of lung cancer caused by factors besides asbestos exposure (primarily smoking). However, it is rarely the case that medical science can establish on case-by-case basis which patient's cancer was caused by asbestos. Under the FAIR Act, any of these cancer patients with pleural conditions would qualify to claim benefits

(11) The Bates White incidence model forecasts the total incidence of FAIR Act compensable lung and other cancer in three steps. First, we apply the overall incidence rates for these cancers (conditional on age, smoking status, and gender) from the epidemiological literature to the asbestos-exposed population. Second, we subtract the number of excess cancers to avoid double counting. Third, we include only those cancer patients with pleural changes (10 percent to 25 percent). Finally, we add excess cancers back in to obtain the total number of cancers that qualify under the FAIR Act.

(12) Second, the Bates White incidence incorporates 25 years of new research and data into the original Nicholson model. In the early 1990s, Dr. Bates and his colleagues at KPMG worked on incidence models of asbestos-related malignant diseases in consultation with Dr. Nicholson. Over the years, Dr. Bates and his Bates White team have performed ongoing research to improve this model. The improvements include:

- Incorporating Census data
- Updating excess lung and other cancer risk equations
- Using occupation-specific age distributions
- Calibrating to disease incidence recorded by the Surveillance, Epidemiology, and End Result (SEER) data
- Correcting for distortions in the number of excess cancers related to modeling job tenure

- Updating mortality data

(13) The Bates White incidence model better fits the SEER data. In particular, observed mortality rates for the past 25 years were lower than what was forecast in 1982. Therefore, a larger fraction of workers exposed to asbestos are alive today than Nicholson forecast.

IV. Responses to Navigant's assertions

(14) Below, we address each of Navigant's assertions concerning our analysis. These responses are not intended to be self-contained. In particular, the explanation for the size of the exposed population and the application of epidemiological models discussed in the previous section are not repeated here.

IV.1. Navigant assertion—Overestimate of asbestos exposures

(15) Navigant asserts that the Bates White study places 68 percent of the 1950 United States workforce (including white collar workers) in asbestos exposed occupations. This is incorrect. Bates White estimates 32 percent of workers were employed in asbestos-exposed occupations in 1950, not 68 percent. Our analysis begins with the 1950 cross-section of the U.S. labor force. Within that cross-section, 40 million workers were exposed to asbestos at some point in their working lives, but not necessarily in 1950. Navigant interprets this number as the count of workers exposed to asbestos in 1950. In fact, we estimate that 18.7 million U.S. workers were exposed to asbestos in 1950. This number corresponds to only 32 percent of the working population. An additional 21.3 million workers were exposed either prior to 1950 (such as during World War II) or after 1950.

IV.2. Navigant assertion—Composition of FAIR Act claims should not differ form historical tort experience

(16) Navigant points out that the lung and other cancer claimants account for 75 percent of the FAIR Act eligible claimants in the Bates White study, while they constitute 8.2 percent of all Manville Trust claimants. This observation is correct and attributable to the weaker medical criteria under the FAIR Act than is present in the tort system.

(17) Further, Navigant's comparison omits the fact that under the FAIR Act, a claimant would receive substantially greater compensation than the Manville Trust awards. As Exhibit 1 illustrates, under the 2002 Manville TDP, the payment for a lung cancer claimant is $4,750.[4]

[4] A Scheduled Value of $95,000 times a five percent payment percentage equals $4,750.

In contrast, the FAIR Act would award $300,000 to $1,100,000. This increase in award raises the economic incentive to file a claim among the qualified population.

Exhibit 1: Manville TDP payments compared to FAIR Act payments

Disease	Manville 1995 TDP	Manville 2002 TDP	FAIR Act
Lung cancer	$9,000	$4,750	$300,000 to $1,100,000
Other cancer	$4,000	$2,250	$200,000

IV.3. Navigant assertion—Literature does not support expansion of occupational exposure

(18) Navigant asserts that the Cocco and Dosemeci article does not contain a sufficient empirical basis for expanding exposure beyond Nicholson's estimates, particularly because the article did not find higher peritoneal cancer risks for women exposed to asbestos. Cocco and Dosemeci's finding relating to the risk of peritoneal cancer among women is irrelevant for our study. As part of their research, the authors identify industries and occupations that had asbestos exposure. We adopt their categorization of industries and occupations. Where appropriate, we adjust these categorizations based upon recent epidemiological literature.[5]

(19) Further, Navigant asserts that Bates White does not distinguish between the exposed population and the eligible population. We use the "exposed population" and "eligible population" interchangeably. Both refer to the population of individuals who satisfy the FAIR Act exposure criteria.

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[5] Other JEM-based articles include:

Burdorf, Ales and Paul Swuste, "An Expert System for the Evaluation of Historical Asbestos Exposure as Diagnostic Criterion in Asbestos-related Diseases," *Annals of Occupational Hygiene*, Vol 43, No. 1, pp. 57-66. 1999.

Kauppinen, K, J. Toikkanen, and E. Pukkala, "From Cross-Tabulations to Multipurpose Exposure Information systems: A New Job Exposure Matrix," *American Journal of Industrial Medicine*, Vol 33, pp. 409-417, 1998.

Rice, C and Ellen F. Heineman, "An Asbestos Job Exposure Matrix to Characterize Fiber Type, Length, and Relative Exposure Intensity," *Applied Occupational and Environmental Hygiene*, Vol 18, pp. 506-512, 2003.

IV.4. Navigant commentary—Bates White assumptions are inconsistent with the bill language

(20) Navigant asserts that Bates White assumes high transaction costs in the tort system deter most lung and other cancer claims. Bates White does not assume that high transaction costs alone deter most lung and other cancer claims. Specifically, we assume that the economic benefit for most lung and other cancer cases is less than the cost of pursuing those cases. The more relevant factor is the expected benefit.

(21) The FAIR Act requires claimants to show that asbestos is a "significant contributing factor" to their disease. Many researchers, including Nicholson, have shown that asbestos exposure increases the incidence of lung cancer. We assume that doctors will interpret this finding to mean that asbestos is a significant contributing factor for lung cancer. The medical literature has not reached a consensus regarding other cancers.

(22) The FAIR Act criteria of a significant contributing factor are weaker than are required in the tort environment. There, a jury must conclude that, more likely than not, asbestos caused the disease. An asbestotic lung cancer claimant who never smoked satisfies the tort criteria. In contrast, a non-asbestotic lung cancer claimant who has been a smoker is unlikely to meet these criteria. As such, the latter claimant is rarely observed in the tort environment.

(23) Further, Navigant asserts that Bates White fails to account for variation in exposure levels across time. This assertion is incorrect. Bates White explicitly accounts for the variation in exposure levels across time.

IV.5. Navigant assertion—Bates White estimates differ from established methodology

(24) Navigant asserts that the Bates White estimate of eligible lung and other cancers far exceeds numbers obtained through established methodology. This assertion stems from a fundamental misunderstanding concerning the incidence of disease caused by asbestos exposure and the incidence of disease that occurs within a population that has asbestos exposure. As discussed in Section III, the Nicholson incidence model counts the number of excess lung and other cancers. The FAIR Act would create an entitlement for all lung and

other cancers among occupationally eligible individuals with pleural conditions, not just excess cancers within this population.

IV.6. Navigant assertion—Inconsistent mesothelioma estimates

(25) Navigant asserts that the Nicholson estimates have been comparable to observed incidence and that the Bates White mesothelioma estimates should not be less than the Nicholson estimates. Both assertions are false.

(26) The Nicholson model overestimates the observed number of mesothelioma cases. Updated incidence models estimate total mesothelioma incidence after 2001 at 53,000, which is 14,000 lower than Nicholson's estimate of 67,000. Note that these estimates include mesothelioma incidence attributable to environmental or other non-occupational factors. Removing these factors reduces our total estimate of mesothelioma cases after 2001 to 49,000.

(27) Additionally, total asbestos exposure determines the incidence of mesothelioma, not how that exposure is spread across individuals. Higher turnover in the workforce results in more workers performing the asbestos-related tasks, but does not increase the total asbestos exposure in the population. For example, two individuals with 10 year of exposure produce the same mesothelioma incidence as one individual with 20 years of exposure. Therefore, the total number of mesothelioma cancers remains unchanged. In contrast, the total number of lung and other cancers increases with the size of the exposed population, since factors in addition to asbestos cause these diseases.

IV.7. Navigant assertion—Lung cancer filings are improbable

(28) Navigant asserts that the Bates White projections of lung cancers in the exposed population are inconsistent with published lung cancer statistics, primarily because asbestos-related lung cancer is overwhelmingly a disease impacting males. We are aware that asbestos-related lung cancer is a disease that primarily affects males. In fact, our projections result in 87 percent of future eligible lung cancer incidence occurring to males.

IV.8. Navigant assertion—Bates White estimates almost all men with lung cancer were exposed to asbestos

(29) Navigant asserts that Bates White finds 73 percent to 92 percent of all men with lung cancers were occupationally exposed to asbestos. This assertion is incorrect. Bates White finds that only 59 percent of all men with lung cancer in 2000 were occupationally exposed to asbestos. Given the older age profile of the occupationally qualified population and the size of this population, it makes sense that asbestos-exposed workers account for a large fraction of total lung cancer incidence.

(30) When estimating historical and future incidence of lung cancers, we assume that lung cancer incidence rates (given an individual's gender, smoking history, and age) remain constant at their 2000 levels. This assumption may lead to an underestimate of future lung cancer incidence. Over the past 20 years, lung cancer rates have increased. The reasons for this increase are not fully understood. If the trend were to continue, then we are underestimating future lung cancer incidence. Similarly, keeping cancer incidence rates constant at their 2000 levels overestimates historical lung cancer. As we do not use the historical lung cancer rate in our analysis of the FAIR Act, this does not change our results.

IV.9. Navigant assertion—No basis for mapping lung cancer claimants into FAIR Act categories

(31) Navigant asserts that the Bates White mapping of lung cancer claimants into FAIR Act categories has no basis. This assertion is false.

(32) For historical claimants, we principally rely on Manville data, but supplement that data with the 2000 National Health Interview Survey (NHIS) conducted by the Center for Disease Control (CDC). Therefore, it is not possible to replicate our estimates solely with Manville data. We use the NHIS data to determine the smoking history of lung cancer claimants. The FAIR Act divides claimants into three smoking categories: current, former, and never. The FAIR Act defines a former smoker as an individual who quit at least 12 years prior to diagnosis. Manville data record whether or not a claimant smoked in the last 15 years. Consequently, we recalibrate the Manville smoking statistics using the 2000 NHIS smoking survey.

(33) For future claimants, we explicitly track smoking behavior, lung cancer incidence, and the presence of pleural changes. We assume the number of excess lung cancers equals the number of claimants eligible for Level VIII. We assign the remaining lung cancer incidence among the occupationally exposed population (who also have pleural changes) to Level VII. Within each Level, we determine smoking status based upon the simulated distribution of smoking histories.

IV.10. Navigant assertion—Reversing assumptions leads to large decreases in the base case

(34) Navigant asserts that reducing the alive exposed population to the Nicholson estimate of 10.5 million in 2000 lowers the base case by $210 billion. This assertion is based on the false premise that the Nicholson estimate of the exposed population is correct. As has been addressed above, the Nicholson estimate undercounts the exposed population. Further, Navigant erred in its calculation of the impact of this change. The report indicates that increasing the exposed population from 27 million to 34 million increases the entitlement by $36 billion to $90 billion. The lower number corresponds to 10 percent pleural changes and the higher number corresponds to 25 percent pleural changes. Navigant computes the cost of an additional one million exposed individuals based on the $90 billion (25 percent pleural changes) scenario. Then, applies this value to the base scenario, which assumes 10 percent pleural changes. Navigant's exercise is meaningful only if the prevalence of pleural changes is held constant in both sets of calculations. Correcting Navigant's error, reducing the alive exposed population to the Nicholson estimate of 10.5 million in 2000 lowers the base case by $85 billion, not by $215 billion.

(35) Navigant's asserts that reducing the prevalence of pleural changes to four percent in the exposed population (the level observed in the general population) lowers the base case to $94 billion. Again, this assertion is based on a false premise. Navigant claims that Bates White endorses a four percent prevalence of pleural changes in the general, but still exposed population. This claim is both false and a mischaracterization of our report. The Medical Literature appendix in our report states that studies of occupationally exposed workers find between nine percent and 51 percent of sampled individuals have pleural conditions. In contrast, studies of the general population find a prevalence of pleural conditions ranging from four percent to six percent. More importantly, as stated in our report, these studies

consider samples in which some, but not all, of the individuals were exposed to asbestos. In other words, the sample is closest to the general U.S. population, which is a mixture of individuals with and without asbestos exposure. Applying the findings of these studies to an occupationally exposed population is an invalid exercise.

(36) Finally, Navigant correctly calculates that if 60 percent of eligible future claimants file against the National Trust, then the payments made by the Trust would be $192 billion under the conservative scenario. As our report states, for the Trust Fund to be viable only 41 percent of future eligible claimants can file under the conservative scenario, far below the claiming rate of many asbestos torts. Further, depending on the realization of the additional risk factors discussed in our report, the threshold-claiming rate could fall as low as 14 percent.

CBO TESTIMONY

Statement of
Douglas Holtz-Eakin
Director

Estimates of the Potential Cost of Claims Under the Fairness in Asbestos Injury Resolution Act

before the
Committee on the Judiciary
United States Senate

November 17, 2005

This statement is embargoed until it is delivered at 2:00 p.m. (EST) on Thursday, November 17, 2005. The contents may not be published, transmitted, or otherwise communicated by any print, broadcast, or electronic media before that time.

CONGRESSIONAL BUDGET OFFICE
SECOND AND D STREETS, S.W.
WASHINGTON, D.C. 20515

Mr. Chairman and Members of the Committee, thank you for the opportunity to be here today to discuss S. 852, the Fairness in Asbestos Injury Resolution Act of 2005. A copy of the Congressional Budget Office's (CBO's) August 25, 2005, cost estimate for that bill is attached to this statement. My comments this morning will focus on a few general points:

- By CBO's estimate, the Asbestos Injury Claims Resolution Fund would be presented with valid claims totaling between $120 billion and $150 billion, in addition to any financing costs and any administrative expenses. The bill would terminate payment of new claims if the fund's resources proved to be inadequate.

- CBO's estimate of the claims likely to be filed under S. 852 for compensation for injury resulting from asbestos exposure is based on analyses by a number of experts who, in studying the legislation and similar proposals in the 108th Congress (including S. 1125, and S. 2290), have relied on a combination of epidemiological data, projections of the incidence of disease in the affected population, and the historical experience of bankruptcy trusts.

- The September 19, 2005, report prepared by the economic consulting firm Bates White, *Analysis of S. 852, Fairness in Asbestos Injury Resolution (FAIR) Act*, concludes that claims under S. 852 from individuals with malignant conditions would be far greater than CBO and others estimated, although claims from individuals with nonmalignant conditions would be far fewer.

- The potential costs of S. 852 are very uncertain. The fund for asbestos claims would probably provide compensation over a period of about 50 years. Forecasts over such a long period are inherently uncertain, and the data supporting projections of asbestos claims are limited.

The Long-Term Viability of the Asbestos Injury Claims Resolution Fund

To assess the ability of the proposed fund to pay all valid claims for injuries sustained because of exposure to asbestos, CBO considered several possible projections of the fund's cash flows beyond the 10-year estimate of the legislation's budgetary impact. Under the bill, if the fund's resources (including borrowing authority) proved inadequate to pay additional obligations, the fund's Administrator would reject new claims and the fund's operations would "sunset." Claimants could then seek compensation in federal courts.

CBO projects that total receipts to the fund over its lifetime would amount to about $140 billion, including a small amount of interest earnings on its balances.

By CBO's estimate, the fund would be presented with valid claims valued between $120 billion and $150 billion, in addition to any financing (debt-service) costs and administrative expenses. Under the legislation, receipts to the fund would be fairly evenly distributed over its first 30 years. However, even if total receipts exceeded total claims, more than half of the fund's expenditures for claims would be paid in the first 10 years of its life, CBO projects. Such an imbalance between when the fund's anticipated claims payments would be made and when receipts would be collected would require the Administrator to borrow to pay claims. Under the bill, the borrowed amounts (including interest costs) would have to be repaid from the fund's own budgetary resources.

Depending upon the number and timing of the claims, as well as the revenues collected, investment returns, and interest rates, the fund might or might not have adequate resources to pay all valid claims. For example, if the value of valid claims totaled $130 billion, interest costs on the fund's borrowing might amount to $10 billion, and the interest earned on investments could approach $2 billion, while administrative costs would add another $1 billion to $2 billion. If the value of such claims was significantly more than $130 billion, the fund's revenues might be inadequate to pay all claims.

Estimate of the Number and Types of Claims for Compensation

In projecting claims against the asbestos fund, CBO considered a variety of scenarios regarding the number of potential claimants to the fund and varied the pace of those claims as well as other economic variables. Under one representative, moderate-cost scenario discussed in this testimony, the value of the claims would be about $130 billion, near the middle of the projected range of $120 billion to $150 billion. Those figures include almost 100,000 pending and future claims for individuals with malignant conditions and almost 1.5 million such claims for nonmalignant conditions.

To estimate the cost to the fund of compensating claimants, CBO considered four categories—claims pending on the date of enactment of the bill for malignant conditions, such claims for nonmalignant conditions, future claims that would be made by individuals with malignant conditions, and future claims by people with nonmalignant conditions. As detailed below, CBO used information from available projections and studies to estimate the number of claims in each category that would qualify for compensation under the medical conditions specified in the bill.

Pending Claims
Individuals who have an outstanding claim with any firm filed in a court on the date of enactment of S. 852 would have five years to submit a claim for compensation from the fund. According to CBO's estimates, over the first five years that the fund is operational, more than 320,000 pending claims would receive an award from the fund, including over 21,000 for malignant conditions.

There is no comprehensive information regarding the number and type of asbestos injury claims that individuals have filed in federal and state courts or with existing trusts under current law. Nor is there reliable information on the number and award values of such claims that are settled each year. In 2003, Navigant Consulting prepared an estimate of the number and type of asbestos injury claims that were pending at that time in federal and state courts.

For its cost estimate of S. 852, CBO used the information collected by Navigant in 2003 and adjusted the data to reflect developments since then. Using projections about the number of claims expected to be filed in 2004 and 2005 and assumptions about the pace of settlements for asbestos injury cases, CBO concluded that the number of pending cases at the beginning of 2006 was likely to be about 7 percent larger than that estimated for 2003.

CBO did not include in its estimate claims that had been inactive for a number of years but were still technically pending with at least one company. If the parties to those claims filed a claim against the new fund, the number of claimants seeking compensation from the fund in the first four years could be significantly higher than estimated.

Future Claims for Malignant Conditions
CBO examined several projections of malignancies associated with asbestos exposure. All of those projections included claimants with asbestos exposure and lung cancer but with no evidence of pleural disease or asbestosis, though such claimants would receive no compensation under S. 852. CBO assumed that the total number of claims for malignant conditions that would be compensated by the fund would be near the average of the various projections examined (excluding those claimants with lung cancer who would not be eligible for compensation). Adjusting for the time that had elapsed since the studies were done, CBO estimated that between 65,000 and 100,000 claims for malignant diseases would be compensated by the fund, and the agency's moderate-cost scenario assumes about 78,000 such claimants. CBO distributed those cases across the categories of malignant diseases specified in the bill on the basis of the various projections and the historical distributions of such claims received by the Manville Trust—one of the older and larger trusts established to settle personal injury claims resulting from exposure to asbestos.

Future Claims for Nonmalignant Conditions
The different projections available to CBO of the number of nonmalignant cases and their distribution among the categories specified in the bill varied greatly. CBO expected that the ratio of nonmalignant claims to malignancies under the bill would be similar to the historical ratio of claims compensated by existing bankruptcy trusts. For example, since 1995, the Manville Trust had received an average of eight claims for nonmalignant conditions for every claim for a malignant condition. On the basis of those historical data, adjusted because nonmalignant claimants could receive larger awards under S. 852 than those provided by existing trust funds, CBO estimates that, on average, during the first 10 years after enactment, the fund would provide compensation for 10 new claims for nonmalignant conditions for every new malignancy (including claimants exposed to asbestos with lung cancer who would not be eligible for compensation under the bill). That ratio would, CBO expects, decrease over time because of reductions in the use of and exposure to asbestos. (Other analysts have estimated the ratio of claims for nonmalignant conditions to malignancies to be as low as 7 to 1 or as high as 17 to 1.) In total, CBO's moderate-cost scenario anticipates about 1.2 million future claims for nonmalignant conditions.

Comparison of Claims Estimates in the Bates White Report

The Bates White report estimates that the federal asbestos compensation fund under S. 852 would face over 450,000 pending and future claims for malignant conditions and fewer than 100,000 such claims for nonmalignant conditions. In comparison with CBO's estimates, those numbers are about 350 percent higher for claims for malignant conditions and more than 90 percent lower for claims for nonmalignant conditions (see Figure 1).

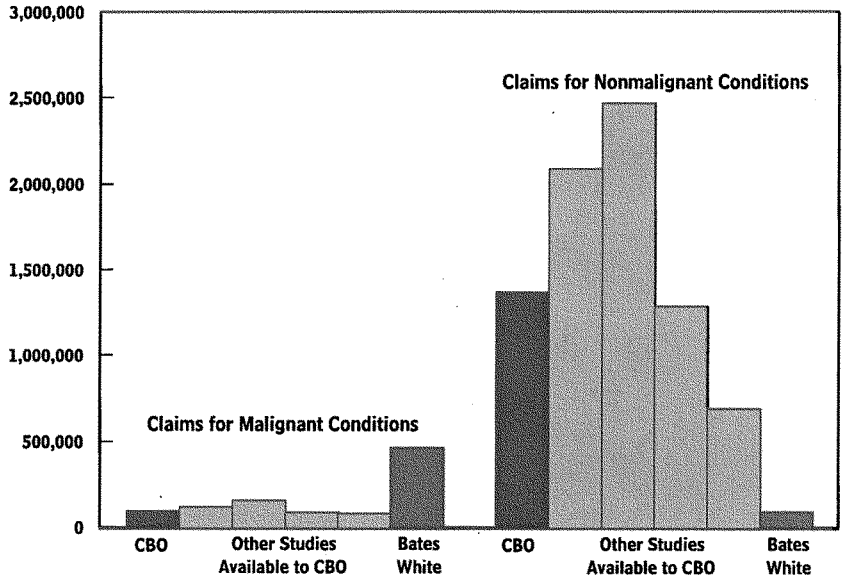
CBO has had a preliminary meeting with authors of the Bates White study but does not have sufficient detail to fully assess the sources of differences from other estimates. The agency has a number of questions about the analysis and its assumptions.

Projections of Claims for Malignant Conditions
The more significant differences between CBO's and Bates White's estimates are in regard to claims for malignant conditions. Bates White anticipates more than three times as many claims for Level VIII (lung cancer with asbestosis), nearly seven times as many claims for Level VII (lung cancer with pleural abnormalities), and more than 12 times as many claims for Level VI (other

Figure 1.

Estimates of Claims Under S. 852 for Malignant and Nonmalignant Conditions

(Total number of claims)



Source: Congressional Budget Office.

specific cancers) than CBO does (see Figure 2).[1] For Level IX (mesothelioma), Bates White's estimate of claimants is about 20 percent higher than CBO's projection.

Most estimates of occupational asbestos exposure that CBO has reviewed take as a starting point a 1982 study from the *American Journal of Industrial Medicine* by William J. Nicholson and others. The Bates White report presents an estimate of the population exposed to asbestos in the workplace that is significantly greater than the number estimated in that 1982 study.

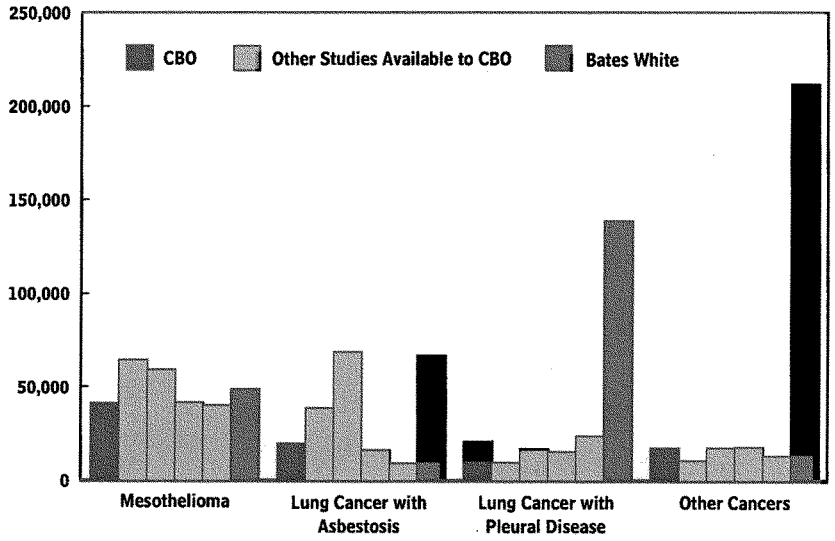
Apparently, that large increase in the estimated size of the eligible population accounts for Bates White's higher estimate of claims for Level VIII (lung cancer with asbestosis). Using that projection of Level VIII claims would add more than

1. The disease levels, enumerated in S. 852, are as follows (from most severe to least severe): IX = mesothelioma, VIII = lung cancer with asbestosis, VII = lung cancer with pleural disease, VI = other cancer, V = disabling asbestosis, IV = severe asbestosis, III = asbestosis/pleural disease B, II = mixed disease with impairment, and I = asbestosis/pleural disease A.

Figure 2.

Estimates of Claims Under S. 852 for Particular Malignant Conditions

(Total number of claims)



Source: Congressional Budget Office.

$40 billion to the value of claims presented to the fund, as compared with CBO's estimate.

For Level VII or Level VI diseases under the bill, claimants would be required to demonstrate eligibility for compensation by presenting evidence of pleural abnormalities and sufficient occupational exposure to asbestos. Under the bill, the exposure that would count toward the requirements for an award would be weighted to adjust for both the severity and specific years of exposure. Claimants would be required to demonstrate 12 years of weighted occupational exposure to asbestos to qualify for a Level VII award or 15 years to qualify for Level VI.

The Bates White report appears to conclude that not only is the potentially eligible population (that is, the population that meets the requirements for occupational exposure) much larger than other studies estimate, but also that the incidence of pleural abnormalities within that population is greater than others may expect. To estimate eligible claims for Levels VII and VI, Bates White projects the occurrence of lung and other cancers within its estimate of the eligible population and assumes that 10 percent to 25 percent would have pleural abnormalities and

thus qualify for compensation under the bill. The higher estimates of claims for Levels VII and VI would add between $140 billion and $375 billion to CBO's estimate of the value of claims under S. 852.

Projections of Claims for Nonmalignant Conditions
Bates White's lower projection of claims for nonmalignant conditions is significant, though it has less of an impact on the estimated cost of this legislation. Apparently, Bates White anticipates fewer nonmalignant claims than expected by CBO for two reasons.

First, Bates White projects only a total number of claimants for Levels II through V, leaving its Level I estimate at zero. The study appears to assign no cost to Level I claimants because the authors expect that such claimants (who would receive only a benefit for medical monitoring) would have little incentive to file claims and thus would pose no significant cost to the fund. CBO, on the other hand, assumes an average cost to the fund of $1,000 each for Level I claimants, of whom CBO expects there would be well over 1 million. That difference in accounting for Level I claimants explains most of the difference in the two studies' estimated number of claims for nonmalignant conditions but not for the difference in the cost of such claims.

Second, Bates White's estimate of 93,900 claimants for Levels II through V is less than half of CBO's projection for those levels in its moderate-cost scenario. That lower estimate would decrease CBO's estimate of the value of claims for nonmalignant conditions faced by the fund by nearly $30 billion. Bates White's estimate appears to anticipate a federal claims-approval process that is more restrictive than the process implemented by the existing bankruptcy trust funds. The projection may reflect recent reports that fraudulent claims for nonmalignant conditions have been approved by some existing trust funds and an expectation that the federal system could detect fraud better than the existing bankruptcy trust funds.

The Operations of the Asbestos Fund Under S. 852 Are Uncertain

In assessing the budgetary impact of S. 852, it is important to recognize that there is an enormous amount of uncertainty about the potential costs. No one can be certain, because of the limited data that are available, as to how many claimants there would be and how much would have to be paid to them.

Contributing to the uncertainty of the cost to resolve claims under the bill are some significant features of the claims process that would be defined only after enactment of the legislation. For instance, the bill would require the Institute of Medicine of the National Academy of Sciences to conduct a study to examine the

causal link between asbestos exposure and cancers other than lung cancer or mesothelioma. If that study were to determine no causal link between asbestos exposure and any of those cancers, the number of eligible claims for such conditions (Level VI under the bill) could decline significantly.

Under S. 852, individual claimants would need to demonstrate that they meet certain thresholds for occupational exposure to asbestos. Those thresholds are specified in terms of weighted occupational exposure and are measured in years. Depending on the degree and frequency of exposure to asbestos, workers performing different jobs in different industries would need to meet or exceed the weighted occupational exposure thresholds in the bill to qualify for compensation. The legislation does not specify which types of jobs or which industries would meet those requirements. In part, that task would be informed by an advisory committee established under the bill. Other specifications and requirements would presumably be set in the final rules for the fund's operations. Those determinations are critical to projecting the number of claims that the fund would face and cannot be known until the details of the fund's operations are implemented.

The bill would also require the Agency for Toxic Substances and Disease Registry to conduct a study to determine if any other contaminated sites pose dangers similar to those observed in Libby, Montana, where mining activity led to widespread exposure to asbestos. Because claimants from Libby would receive higher minimum awards than other claimants and because the bill would mandate similar treatment for any other sites so identified, the costs could rise depending upon which sites might be judged similar to Libby and on how many claimants would be affected.

Finally, CBO's estimate does not take into account the impact of approving any exceptional medical claims, which are claims that do not fit into the defined criteria but which might still receive compensation depending upon the findings of specific panels of physicians. It is difficult to assess how many such claims might be filed and how liberally those panels might rule on the claims.

CONGRESSIONAL BUDGET OFFICE
COST ESTIMATE

August 25, 2005

S. 852
Fairness in Asbestos Injury Resolution Act of 2005

As reported by the Senate Committee on the Judiciary on June 16, 2005

SUMMARY

S. 852 would establish the Asbestos Injury Claims Resolution Fund (the Asbestos Fund) to provide compensation to individuals whose health has been impaired by exposure to asbestos. Under the bill, the Administrator of a new Office of Asbestos Injury Claims Resolution (the Office) within the Department of Labor would administer the Asbestos Fund and manage the collection of federal assessments on certain companies that have made expenditures for asbestos injury litigation prior to enactment of this legislation. A separate Asbestos Insurers Commission would allocate other payment obligations among insurers with asbestos-related obligations in the United States. The Asbestos Fund also would absorb all private asbestos trust funds already existing at enactment. Under the bill, individuals affected by exposure to asbestos could no longer pursue awards for damages in any federal or state court and would submit claims to the Administrator, who would then evaluate such claims and award compensation according to criteria and amounts specified in the legislation.

CBO estimates that net receipts and expenditures of the Asbestos Fund would increase projected budget deficits over the 2006-2015 period by about $6.5 billion (excluding debt service costs).

We expect that sums paid into the fund would be treated in the budget as federal revenues and that amounts expended to pay claims and administer the fund would be considered new federal direct spending. During periods when surplus amounts would be collected by the fund, CBO assumes that most of its assets would be invested in nongovernmental securities. The net cash flows associated with such investments would also be direct spending.

Over the 2006-2015 period, we estimate that payments to eligible claimants, start-up costs, investment transactions, and administrative expenses would total nearly $70 billion. Over the same 10-year period, we estimate that the fund would collect about $63 billion from firms and insurance companies with past asbestos liability and certain private asbestos trust funds.

Consequently, we expect the Administrator of the fund would need to exercise the borrowing authority authorized under the bill to meet the fund's obligations during this period. Assuming enactment of S. 852 by the end of calendar year 2005, CBO estimates that almost $8 billion would be borrowed during the first 10 years.

To evaluate the long-term financial viability of the fund, CBO projected cash flows over the life of the fund—assumed to be about 50 years—using a variety of assumptions about the number, type, and timing of future claims likely to be submitted to the fund, and alternative assumptions about future inflation and interest rates. The legislation is designed to produce collections totaling about $140 billion over the first 30 years. CBO expects that the value of valid claims likely to be submitted to the fund over the next 50 years could be between $120 billion and $150 billion, not including possible financing (debt-service) costs and administrative expenses. The maximum actual revenues collected under the bill would be around $140 billion, but could be significantly less. Consequently, the fund may have sufficient resources to pay all asbestos claims over the next 50 years, but depending on claim rates, borrowing, and other factors, its resources may be insufficient to pay all such claims.

A more precise forecast of the fund's performance over the next five decades is not possible because there is little basis for predicting the volume of claims, the number that would be approved, or the pace of such approvals. Epidemiological studies of the incidence of future asbestos-related disease and the claims approval experience of private trust funds set up by bankrupt firms can be used to indicate the range of experience of the federal asbestos trust fund might face, but those sources cannot reliably indicate the financial status of the fund over such a long time period.

CBO estimates that the fund would face more than half of all anticipated claims expenses in its first 10 years, while it would receive roughly constant collections from insurers and defendant firms over its first 30 years. This conclusion is consistent with other forecasts that we have reviewed. Because expenses would exceed revenues in many of the early years of the fund's operations, the Administrator would need to borrow funds to make up the shortfall. The interest cost of this borrowing would add significantly to the long-term costs faced by the fund and contributes to the possibility that the fund might become insolvent. Under the provisions of section 405, the fund would have to stop accepting new claims (a process known as "sunset") if its current and future resources become inadequate to fulfill all existing and anticipated obligations, including its debt obligations.

Pursuant to section 407 of H. Con. Res. 95 (the Concurrent Resolution on the Budget, Fiscal Year 2006), CBO estimates that enacting S. 852 would cause an increase in direct spending greater than $5 billion in at least one 10-year period from 2016 to 2055.

S. 852 contains two intergovernmental mandates as defined in the Unfunded Mandates Reform Act (UMRA), but CBO estimates that the cost of complying with those mandates would be insignificant and well below the threshold established in that act ($62 million in 2005, adjusted annually for inflation).

S. 852 would impose new private-sector mandates, as defined in UMRA, on certain individuals filing claims for compensation for injuries caused by exposure to asbestos; certain companies with prior expenditures related to asbestos personal injury claims; certain insurance companies; trusts established to provide compensation for asbestos claims; health insurers; and persons involved in manufacturing, processing, or selling certain products containing asbestos. Based on information from academic, industry, government, and other sources, CBO concludes that the aggregate direct cost to the private sector of complying with all of the mandates in the bill would well exceed the annual threshold established by UMRA ($123 million in 2005, adjusted annually for inflation).

ESTIMATED COST TO THE FEDERAL GOVERNMENT

The estimated budgetary impact of S. 852 over the 2006-2015 period is shown in Table 1. The effects of this legislation fall within budget functions 600 (income security) and 900 (interest). CBO estimates that the bill would have little net effect on the budget over the first five years but would add about $6.5 billion to deficits from 2011 through 2015. (The long-term budgetary impact of the bill is discussed in the section following the "BASIS OF ESTIMATE" section.)

BASIS OF ESTIMATE

For this estimate, CBO assumes that S. 852 will be enacted by the end of calendar year 2005. Based on information from the Department of Labor, we expect that the Asbestos Fund could become fully operational during fiscal year 2007 and that certain pending exigent asbestos claims would be paid by the fund in 2006.

CBO expects that the fund's assessments on firms and insurers would be treated in the budget as revenues and that payments to satisfy claims would be considered direct federal spending. In addition, because the Administrator would be authorized to invest the fund's balances, certain cash flows associated with investments in nongovernmental financial instruments also would be reflected in the budget. Specifically, under the Administration's current procedures for budget presentation, government funds invested in nongovernmental financial instruments are recorded as expenses (outlays), and the redemption of such investments is recorded as a receipt (negative outlay). Under the bill, any noncash assets received from

existing private asbestos bankruptcy trust funds (such as the Manville Trust) would have no budgetary impact until they were liquidated by the Administrator. At that point, both the assets and any gains or dividends on those assets would be recorded on the budget as revenues.

TABLE 1. ESTIMATED BUDGETARY IMPACT OF S. 852

	By Fiscal Year, in Billions of Dollars									
	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
CHANGES IN DIRECT SPENDING										
Claims and Administrative Expenditures of the Asbestos Fund										
Estimated Budget Authority	8.7	21.9	11.1	5.3	5.3	5.3	5.0	4.9	4.7	4.6
Estimated Outlays	8.7	5.6	8.4	9.5	10.8	6.7	5.2	5.1	5.0	4.8
Investment Transactions of the Asbestos Fund										
Estimated Budget Authority	0	1.1	0	0	-1.0	-0.2	0	0	0	0
Estimated Outlays	0	1.1	0	0	-1.0	-0.2	0	0	0	0
Total Direct Spending										
Estimated Budget Authority	8.7	23.0	11.1	5.3	4.3	5.1	5.0	4.9	4.7	4.6
Estimated Outlays	8.7	6.7	8.4	9.5	9.8	6.5	5.2	5.1	5.0	4.8
CHANGES IN REVENUES										
Collected from Defendant Firms	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9
Collected from Insurer Participants	1.3	4.1	5.0	5.0	5.0	1.1	1.1	1.1	1.1	1.1
Collected from Bankruptcy Trusts [a]	4.5	0	0.4	1.6	1.6	0	0	0	0	0
Total Estimated Revenues	8.7	7.0	8.4	9.5	9.6	4.0	4.0	4.0	4.0	4.0
CHANGES IN THE DEFICIT										
Estimated Net Increase or Decrease (-) in the Deficit from Changes in Revenues and Direct Spending	0	-0.3	0	0	0.3	2.5	1.2	1.1	0.9	0.8

NOTE: Numbers in the table may not add up to totals because of rounding.

a. CBO estimates the total value of cash and financial assets of the asbestos bankruptcy trust funds would be $7.5 billion in 2006 and $8.1 billion when liquidated. The federal budget would record the cash value of those trust assets when they are liquidated by the Administrator to pay claims. CBO estimates that assets of asbestos bankruptcy trust funds would not be fully liquidated until 2010.

To estimate the cost of processing claims, CBO reviewed prior government experience with similar compensation funds and operations of privately run asbestos funds. We also discussed the potential costs of administering the fund with the Department of Labor. To estimate the number and types of claims the Asbestos Fund would receive and when they would be received, CBO reviewed a number of projections of asbestos injury claims that were prepared for different purposes by several private groups and individuals, including those developed by the Asbestos Study Group, Navigant Consulting, the National Association of Manufacturers, and Legal Analysis Systems during consideration of this bill and of similar legislation considered by the 108th Congress. In addition, we studied the history of claims paid and projections of those anticipated to be paid by the Manville Trust and considered the inaccuracy of past projections of future asbestos injury claims. Finally, to determine whether the Asbestos Fund could be expected to collect the amount of assessments from defendant companies and insurance companies that are anticipated in the legislation, CBO examined financial information for some of the public companies that would likely be contributors to the fund and the reserves held by insurance companies for asbestos claims.

Direct Spending

To estimate the amount and timing of new direct spending under S. 852, CBO considered the cost of administering the Asbestos Fund and the length of time it would take following enactment for the fund to be fully operational and processing claims. We projected the number of claims that would be submitted to the fund over the 2006-2015 period, including those claims that have been filed or will be filed in federal or state courts or with existing trusts but not settled by the time the bill is enacted (these claims are known as pending claims). To estimate the cost of paying valid claims submitted to the fund, we considered the number of claims likely to be submitted by persons with malignant and nonmalignant medical conditions due to asbestos exposure. We also estimated the net disbursements and receipts associated with the fund's investment activity. Finally, we considered the borrowing that might be required in each year in order for the fund to pay claims.

Administration and Start-up of the Asbestos Fund. Based on the cost of operating existing government compensation funds, the operation of privately run asbestos trusts, and information from the Department of Labor, CBO estimates that administration of the Asbestos Fund would require a staff of over 700 employees for the 2006-2015 period, costing a total of nearly $1 billion over 10 years. Such administrative costs would be paid from the Asbestos Fund and would not require further appropriation action. For this estimate, CBO expects that the Office would start accepting claims in 2006, shortly after enactment. During the first three years of operation, CBO estimates that the Office would receive around

185,000 claims per year, but that this number would fall to an average of around 60,000 for the next seven years, once all currently pending claims are resolved by the fund.

Individuals seeking compensation from the Asbestos Fund would need to file a claim with the Office within the time specified by the legislation (five years from the date of enactment for pending claims or five years from the date of diagnosis for future claims). The Administrator would then have 90 days to present a proposed decision concerning the appropriate award according to the medical criteria and awards values specified in the legislation. If the claimant chooses to accept the award, the Administrator would issue a final decision, and the Asbestos Fund would pay the claimant over the next one to four years. A claimant could appeal a decision by the Administrator within 90 days of its issuance by requesting either a hearing or a review of the written record. In those cases, a decision on the appeal would be required within either 180 days or 90 days, respectively.

Under the bill, any claim pending on the date of enactment would be stayed, unless it were already before a court. Of the stayed claims, exigent claims (defined by S. 852 as those claims brought by a living claimant with either mesothelioma or less than one year to live, or by the spouse or child of a claimant who died after either filing of his or her claim or enactment of the bill) would receive the earliest attention by the Administrator. Within 60 days of receipt, the Administrator would be required to either approve or disapprove such a claim as exigent. The bill would require the Administrator to pay exigent claims within one year for cases of mesothelioma, and in no more than two years for all other exigent claims.

CBO expects that the fund would not be fully operational until at least a year following enactment of the legislation. Even after appointing an Administrator and Insurers Commission, this start-up period would be needed to promulgate detailed operating rules and procedures and to recruit, hire, and train personnel to process claims and manage the fund's operations. (The Energy Employees Occupational Illness Compensation Program—a similar federal fund serving a much smaller population—took slightly more than a year to become fully operational.) During this start-up period, the Administrator and the Insurers Commission would also need to collect financial information from thousands of firms and insurers that have made prior expenditures for asbestos injury claims to set appropriate assessment rates for those insurers and firms.

Payments to Claimants. To estimate the cost of paying compensation claims under the bill, CBO reviewed projections of asbestos injury claims that were presented to the Senate Committee on the Judiciary during its consideration of S. 852 and for similar legislation considered by the 108th Congress. Such projections were based on a combination of epidemiological data, projections of disease incidence for the affected population, historical experience of bankruptcy trusts, and projections of the number of injured that would apply for compensation given the bill's medical criteria and compensation award values.

S. 852 defines nine levels of medical impairment that persons exposed to asbestos have suffered and specifies a dollar amount of compensation that the fund would pay to individuals who demonstrate both adequate exposure to asbestos and specified medical conditions. Over time, those award values would be adjusted for inflation. For the lung cancer levels, the bill stipulates different awards, depending on whether a claimant, currently or in the past, does or does not smoke tobacco. (For example, claimants having lung cancer with asbestosis would qualify for compensation under level VIII; awards at this level would range from $600,000 to $1.1 million, depending on the claimant's history of tobacco use.)

To estimate the cost to the fund of compensating claimants, CBO considered four categories—future claims that would be made by individuals with malignant conditions, future claims that would be made by those with nonmalignant conditions, and claims pending on the date of enactment of the bill for both malignant and nonmalignant conditions. As detailed below, CBO used information from available projections and studies to estimate the number of claims in each category that would qualify for compensation under the medical conditions specified in the bill. Individuals who are eligible for an award would receive payments from the fund over a one- to four-year period. For this estimate, we assumed that payments for nonexigent claims would be spread equally over a four-year period. We assume that claims pending for mesothelioma at the time the bill is enacted would represent the exigent claims and would be paid in 2006.

Table 2 summarizes the number of claims and total award value for those claims that CBO projects for each category of claims under the legislation.

Pending Claims. Individuals who have an outstanding claim with any firm filed in a court on the date of enactment of S. 852 would have five years to submit a claim for compensation from the fund. CBO estimates that, over the first five years that the fund is operational, more than 320,000 pending claims would receive an award from the fund.

There is no comprehensive information regarding the numbers and types of asbestos injury claims that individuals have filed in federal and state courts or with existing trusts under current law. Nor is there reliable information on the numbers and award values of such claims that are settled each year. In 2003, Navigant Consulting prepared an estimate of the number and type of asbestos injury claims then pending in federal and state courts. That information was collected to inform the consideration of legislation similar to S. 852 in the 108th Congress.

TABLE 2. SUMMARY OF ESTIMATED ASBESTOS CLAIMS AND AWARD VALUES

	Initial 10-Year Period		Life of Fund	
	Number of Claims	Award Value of Claims (in billions of dollars)	Number of Claims	Award Value of Claims (in billions of dollars)
Pending Claims for:				
Malignant Conditions	21,000	14	21,000	14
Nonmalignant Conditions	301,000	11	301,000	11
Total Pending Claims	322,000	25	322,000	25
Future Claims for:				
Malignant Conditions	42,000	34	78,000	74
Nonmalignant Conditions	620,000	16	1,184,000	32
Total Future Claims	662,000	51	1,262,000	106
Total for All Claims	984,000	76	1,585,000	132

For this estimate, CBO used the information collected by Navigant in 2003 and adjusted the data to reflect developments since then. Using projections about the number of claims expected to be filed in 2004 and 2005 and assumptions about the pace of settlements for asbestos injury cases, we concluded that the number of pending cases in 2006 is likely to be larger than estimated in 2003—about 7 percent larger.

For this estimate, CBO did not take into account the number of claims that are still technically pending with at least one company but have been inactive for several years. If the claimants' lawyers actively seek out those individuals to file a claim against the fund, the number of claimants seeking compensation from the fund in the first four years could be significantly higher. An award from the Asbestos Fund for such individuals would be reduced by the value of any other awards received for a given claim. CBO estimates that the average award from the fund over the 2006-2015 period for pending malignant claims would be about $650,000 and that awards for such claims would total $14 billion. We estimate that awards for pending nonmalignant claims would average around $38,000; total awards for those claims would be $11 billion over the next 10 years.

Future Claims for Malignant Conditions. CBO examined several projections of malignancies associated with asbestos exposure. While all of those projections included claimants with asbestos exposure and lung cancer but with no evidence of pleural disease or asbestosis, such claimants would receive no compensation under S. 852. CBO assumes that the total number of claims for malignant conditions that would be compensated by the fund would be near the average of the various projections we examined (excluding those lung

cancer claimants who would not be eligible for compensation). Adjusting for the time that has elapsed since the performance of the studies that we examined, those studies varied from 65,000 to 100,000 claims for malignant diseases that would be compensated by the Asbestos Fund. This estimate assumes that there would be about 78,000 such claimants. We distributed those cases across the categories of malignant diseases specified in the bill based on the various projections and on the historical distributions of such claims received by the Manville Trust. On this basis, CBO estimates that the average award for malignant conditions over the next 10 years would be $800,000 and that the total value of awards for such conditions over that period would reach $34 billion.

Future Claims for Nonmalignant Conditions. The different projections available to CBO of the number of nonmalignant cases and their distribution among the categories specified in the bill vary greatly. CBO expects that the ratio of nonmalignant claims to malignancies under the bill would be similar to the historical ratio of claims compensated by existing bankruptcy trusts. For example, since 1995, the Manville Trust has received an average of eight claims for nonmalignant conditions for every claim for a malignant condition. Based on those historical data and because nonmalignant claimants could receive larger awards under S. 852 than those provided by existing trust funds, CBO estimates that during the first 10 years after enactment, the fund would compensate, on average, 10 new claims for nonmalignant conditions for every new malignancy (including claimants exposed to asbestos with lung cancer who would not be eligible for compensation under the bill). CBO expects that this ratio would decrease over time because of reductions in the use of and exposure to asbestos. (Other analysts have estimated the ratio of claims for nonmalignant conditions to malignancies to be as low as 7:1 or as high as 17:1.) In total, CBO anticipates about 1.2 million future claims for nonmalignant conditions.

CBO estimates that around 85 percent of claims for nonmalignant conditions filed with the Asbestos Fund would be eligible for medical monitoring reimbursement (level I) from the fund. Such reimbursement, roughly $1,000, is the lowest rate of payment specified for nonmalignant conditions. This claims estimate is based on available research involving a sample of the exposed population with nonmalignant conditions and the history of claims filed with the Manville Trust. To evaluate the history of such claims, CBO reviewed the trust's estimate of how claims received under its 1995 trust distribution process (TDP) would have been compensated under the 2002 TDP. (The later TDP contains categories for nonmalignant conditions more similar to those under S. 852.) Overall, CBO estimates that, over the next 10 years, the average payment for nonmalignant conditions would be about $26,000 and total awards for such conditions would amount to $16 billion.

Investments of the Asbestos Fund. Section 222 would authorize the Administrator to invest amounts in the fund to ensure that there are sufficient sums to make payments to claimants. That section appears to imply that the fund's Administrator could invest surplus

amounts in private securities. For this estimate, CBO assumes that the managers of the fund would keep 20 percent of the investments in Treasury securities and 80 percent in non-Treasury securities. The current budgetary treatment of federal investments in non-Treasury instruments is specified in the Office of Management and Budget's (OMB's) Circular A-11, which states that the purchases of such securities should be displayed as outlays and the sales of such securities and returns, such as dividends and interest payments, should be treated as offsetting receipts or collections.

CBO estimates that investing 80 percent of fund balances in private securities would result in net receipts of $200 million over the 2006-2015 period. The fund would make net investments in 2007, when its collections would exceed its expenditures. In subsequent years when expenditures would exceed collections, the difference would be made up by drawing down assets from the fund, starting with any assets received from other asbestos trust funds. Liquidated assets and earnings from private trust funds would be considered revenue in the federal budget, while the value of assets privately invested by the Administrator would be recorded as offsetting receipts upon liquidation.

For this estimate, CBO used its projections of the return on Treasury securities to predict investment earnings of the fund for both private securities and government securities. Although private securities may well yield higher gains over the long term, such investments carry much greater risk than government securities. The difference between projected returns on private securities and government bonds can be seen as the cost investors must be paid to bear the additional risk of holding private securities instead of government bonds. Thus, adjusted for the additional cost of risk associated with private securities, the net expected returns on private securities are the same as those on government securities.

Revenues

Receipts to the fund would come from three sources: defendant companies that have spent more than $1 million on asbestos injury litigation, insurance companies that have made more than $1 million in such payments, and existing private trust funds formed to settle asbestos claims. Over the life of the fund, defendant companies would be expected to contribute $90 billion, less any credits granted for the establishment of private bankruptcy trust funds set up after July 31, 2004 (known as bankruptcy trust credits); insurance companies would be called upon to contribute just over $46 billion, less bankruptcy trust credits. CBO is aware of one bankruptcy trust that would be eligible for such credits—the Halliburton Bankruptcy Trust. CBO estimates that the bankruptcy trust credits of defendant companies would total $2.4 billion over the 30-year period, or $80 million per year, with the credits being apportioned to all defendant companies based on their share of the total amounts of payments for the year. Insurers would have an estimated $1.5 billion in bankruptcy trust

credits; those credits would go to the insurers who paid into trusts set up after July 31, 2004. All assets of existing asbestos trusts (about $7.5 billion) would be transferred to the fund.

Defendant companies. Section 202 would specify $90 billion, less any bankruptcy trust credits under section 222, as the amount to be collected from defendant companies. The minimum aggregate annual payment would be $3 billion, less any bankruptcy credits. CBO estimates that annual payments would total $2.9 billion over 30 years. For the purpose of determining each firm's contribution, each one is assigned to a tier based on its prior asbestos expenditures and whether it is in bankruptcy proceedings.

The actual amounts paid by firms might differ from that implied by their tier assignments because the bill would allow certain exemptions for small businesses and modifications of assessments, based on financial distress or inequity or based on whether a firm meets the criteria for being classified as a distributor. The bill also would allow the Administrator to increase the amount that defendants would pay if the total payments fall short of the minimum aggregate annual payment amount.

The defendants' contributions could decline over the 30-year period for two reasons. First, if more defendant companies exist and make payments than CBO estimates, the payments in the earlier years would exceed the minimum required payment. Because the aggregate payments cannot exceed $90 billion less bankruptcy credits (or a net of $87.6 billion), any excess amounts paid in earlier years would reduce the amounts needed to be paid in the future years. Second, the required total payments could decline in later years if the Administrator determines that full payment is not required, and each company's assessment would decline proportionately.

The amount the fund would collect from defendant companies depends on a number of unknown factors:

- The number of subject companies and the tiers into which they would fall;
- Which of those companies would be subject to exemption or modification of their contributions and whether some affiliated entities would elect to be treated separately or jointly;
- The size and nature of the assets of firms in liquidation;
- The number and characteristics of subject firms that may go into bankruptcy during the assessment period; and
- How much funding is needed to satisfy claims and other expenses of the fund.

Some sources have indicated that as many as 8,400 firms may have paid sufficient prior asbestos claims to be covered by the legislation. CBO could not verify this figure. Based on information that CBO could obtain about firms that have incurred asbestos litigation expenses, we estimate that about 1,700 defendant firms would be required to make contributions to the fund under the bill. It was possible to determine the likely tiers for about 500 of those firms. The remaining firms were assigned equally to the two lowest tiers, based on the assumption that firms with unknown tier assignments were those with lower asbestos claims payments. No reduction in the number of firms was made for those exempt due to size. Similarly, CBO made no upward adjustment to account for defendant firms not identified.

Tier I firms are firms that have filed for bankruptcy. Revenues for tier I firms expected to emerge from bankruptcy were obtained, where possible, from public sources. No reliable information could be obtained about the possible contributions of tier I firms that are likely to liquidate. Firms that securities analysts expect to earn revenues in 2006 were assumed to make the required payments, and no reduction in contribution was made for firms that would receive hardship or inequity adjustments in their contributions or for consolidated payments made by affiliated groups.

Insurers. Section 212 would specify just over $46 billion, less any bankruptcy trust credits, as the amount to be collected from insurers over a 28-year period. In the case of insurers, no allocation or formula for payments is specified in the legislation, although the legislation does specify how much in aggregate would be collected for each of the 28 years. The bill would create an Asbestos Insurers Commission to determine an allocation among the insurance companies. The bankruptcy trust credit would represent a dollar-for-dollar reduction in the amount of liability an insurer would pay under the bill for any contributions to bankruptcy trusts established after July 31, 2004. CBO estimates that the value of the bankruptcy trust credits would be $1.5 billion. Either the allocation determined by the Asbestos Insurers Commission or one agreed upon by the subject companies would determine how much each insurer would pay of the $46 billion total.

S. 852 would direct insurers to contribute an aggregate initial payment of no more than 50 percent of the first year's required $2.7 billion within 90 days after enactment. The bill would authorize the Administrator to calculate the initial payment obligations of insurers and handle other matters related to the collection of the funds. However, the initial payment amounts would not be considered final until the Insurers Commission has been formed, promulgated its allocation methodology, and issued its final determination of liability of the insurers. Based on the procedural steps specified in the bill, CBO expects that such determination would be made in fiscal year 2007.

The participating insurers would pay interest on any difference between their ultimate liability and the amount of the interim payment. Any insurers who paid more than their ultimate liability would receive interest on the excess amount. The bill specifies that the interest rate on any overpayments or underpayments would be the same rate. CBO estimates that the fund would be able to collect the initial payment from insurers by the end of fiscal year 2006 and that the demands on the fund for payments would prompt the Administrator to seek to collect the maximum allowed for the initial payment—50 percent of the first year obligation. CBO further assumes that the remaining 50 percent of the first year's payment would be collected in the second year with the associated interest and the second year's contribution.

Existing Asbestos Trust Funds. Based on publicly available information, CBO determined that the existing private trust funds set up to compensate claimants currently contain about $7.5 billion in assets. Under the bill, those assets would be transferred to the new Asbestos Fund in the first year following enactment. Until that transfer occurs, we assume that claims paid by these funds would roughly equal investment income. The assets of existing trusts are invested in a variety of financial instruments, and only the cash and U.S. obligations in these trusts would be recorded in the federal budget as revenues of the government when transferred. The private securities in the trusts (together with any earnings) would be recorded as revenues only when converted to cash or U.S. obligations.

Based on the financial reports of the Manville Trust, CBO estimates that 56 percent of transferred trust assets (about $4.5 billion) would be recorded as revenues in 2006. For this estimate, we assume that the remainder of the assets would only be sold as needed to finance spending in later years. The proceeds of those sales would be recorded as revenues to the fund at that time.

Offsets and Guaranteed Payment Surcharge. The bill would allow firms and insurers to reduce their individual assessments by the value of any asbestos claims paid after the enactment date of S. 852 and before 2007, when CBO expects the fund's full operations would start. It also would authorize certain payments by subject companies to guarantee collection of the mandated amounts. For the purpose of this estimate, CBO assumes that these provisions would have no net effect on annual payments by firms and insurers.

Offsets for Exigent Claims Paid During Start-up of the Fund. In the interim between enactment of S. 852 and the time when the fund would begin full operations, defendants and insurers may settle or face judgments on exigent asbestos claims that the fund is unable to process or pay. Firms and insurers could use those settlement amounts as a dollar-for-dollar offset against their assessments, reducing the payments required to be made to the fund.

Guaranteed Payment Surcharge and Guaranteed Payment Account. The Administrator of the fund could impose on each defendant participant a surcharge to offset any shortfalls in the annual aggregate payment amounts. If the payments by defendant participants exceed the minimum aggregate annual payment of $3 billion, less bankruptcy trust credits, the excess amount, up to $300 million, would be set aside in the guaranteed payment account as a form of self-insurance by the fund, with any excess funds being carried forward to the next year. For this estimate, CBO assumed that the Administrator would assess a surcharge on all firms when necessary. If the funds in the guaranteed payment account are insufficient to ensure that the minimum annual payment is raised in any year, the Administrator of the fund would be able to levy a guaranteed payment surcharge on the defendant participants on a pro rata basis.

Secondary Effects on Other Revenue Sources. The payments made by defendants and insurers and the sums received by claimants could affect taxable income under the federal corporate and individual income tax systems. This cost estimate includes no effects of those transactions on federal income taxes paid by claimants or businesses. Those secondary effects are likely to be insignificant in any event.

Payments made into the fund would be tax-deductible and would thus reduce the corporate income tax liability of participating firms. But in the absence of this legislation, firms would have to pay asbestos damages set in the courts, which would also be tax-deductible. It is impossible to say with any confidence whether the amounts that would be paid out by defendant firms and insurers under this legislation would be higher or lower than what they would expend in its absence through the tort system. The best assumption under the circumstances is that the bill would have no significant effect on corporate taxable income or on the government's receipts from corporate income taxes.

Similarly, the tax treatment of payments received by claimants would be unchanged from what it is now—effectively excluded from taxable income and therefore having no effect on taxes paid by individuals. There might be some reduction in income tax receipts if a significantly larger proportion of payments goes to claimants rather than to their attorneys, who would pay tax on the income. But this would depend on whether more claimants think they can navigate the new system set up under the legislation without legal assistance than is the case under the existing one—a circumstance that cannot be known. CBO expects that any change in the allocation of awards between attorneys and claimants would be too small to significantly affect income tax receipts.

BUDGETARY IMPACT OF THE ASBESTOS FUND AFTER 2015

To assess the long-term financial viability of the Asbestos Fund, CBO considered several possible projections of the fund's cash flows beyond the normal 10-year estimate of the legislation's budgetary impact. When estimating such cash flows, the provisions of section 405 are critical. That section of the bill would sunset the fund's operations by directing the Administrator to reject new claims if the fund's resources (including borrowing authority) prove inadequate to pay additional obligations. Under S. 852, claimants could seek compensation in federal courts if the fund were to sunset. In determining whether or not to sunset, the Administrator would consider the unpaid costs of any approved claims and previous borrowing against future revenues. Section 405 also would require the Administrator to return remaining assets to certain nongovernmental trust funds—but only in the event of a sunset.

CBO estimates that total receipts to the Asbestos Trust Fund over its lifetime would amount to about $140 billion, including a small amount of interest earnings on its balances. We estimate that the fund would be presented with valid claims worth between $120 billion and $150 billion in addition to any financing (debt-service) costs and administrative expenses. Under the legislation, receipts to the fund would be fairly evenly distributed over its first 30 years. However, even if receipts exceed claims, CBO estimates that more than half of the fund's expenditures for claims would be paid in the first 10 years of its life. Such an imbalance between when the fund's anticipated claims payments would be made and when receipts would be collected would require the Administrator to borrow to pay claims. Under the bill, the borrowed amounts (including interest costs) would have to be repaid from the fund's own budgetary resources.

Depending upon the precise timing and value of claims presented to the fund as well as the exact revenue collected, investment returns, and interest rates, the fund might or might not have adequate resources to pay all valid claims. For example, if the value of valid claims totaled $130 billion, interest costs on the fund's borrowing might amount to $10 billion, and interest earned on investments could approach $2 billion, while administrative costs would add another $1 billion to $2 billion. If the value of such claims were significantly more than $130 billion, the fund's revenues might be inadequate to pay all claims.

Because of the uncertainty and sensitivity of the variables that affect the fund's balances, any long-term projection over five decades must be viewed with considerable caution. Operating the Asbestos Fund would be an entirely new governmental task, and CBO and other analysts have little basis for judging how the Administrator would implement the legislation. The discretion available to the Administrator and insurance commission with respect to the allocation of costs, provision of adjustments, and levying of surcharges makes the flows into and out of the fund hard to predict with much reliability. Furthermore, the projections that

have been made in recent decades of the number of asbestos claims likely to be filed were, in hindsight, much too low, suggesting that there might be a significant risk of underestimating the number of future asbestos claims. In addition, receipts to the Asbestos Fund would depend on the continued viability of the firms required to pay into it, which is also uncertain.

The Asbestos Fund's Operations Are Uncertain

Contributing to the uncertainty of the cost to resolve claims under the bill are some significant features of the claims process that would only be defined after enactment of the legislation. For instance, the bill would require the Institute of Medicine of the National Academy of Sciences to conduct a study to examine the causal link between asbestos exposure and cancers other than lung cancer or mesothelioma. If that study were to determine no causal link between asbestos exposure and any of those cancers, the number of claims for such conditions (level VI under the bill) could decline significantly. The bill would also require the Agency for Toxic Substances and Disease Registry (ATSDR) to conduct a study to determine if any other contaminated sites pose dangers similar to those observed in Libby, Montana. Because claimants from Libby would receive higher minimum awards than other claimants and because the bill would mandate similar treatment for any sites so identified, the costs could rise depending upon which sites might be judged similar to Libby and on how many claimants would be affected. Also, this estimate does not take into account the impact of approving any exceptional medical claims, which are claims that do not fit into the defined criteria but which might still receive compensation depending upon the findings of specific panels of physicians. It is difficult to assess how many such claims might be filed and how liberally those panels might rule on the claims.

Past Estimates of the Number and Value of Asbestos Claims Have Been Inaccurate

Forecasts of asbestos claims made over the past decade have failed to accurately predict the magnitude, scope, and evolution of asbestos claims. According to one witness that testified on similar legislation previously before the committee, "in every instance where companies or trusts have attempted to project future asbestos claims, they have always seriously underestimated."[1] Most estimates of future claims rely on a combination of epidemiological information and statistical estimation techniques using historical data. Such models contain a number of potential sources of error in forecasting.

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1. Statement of Professor Eric Green, Boston University School of Law, before the Senate Committee on the Judiciary, June 4, 2003.

In 1988, experts estimated that the number of future claims against the Manville Trust would range from 50,000 to 200,000. By January of 1991, the trust had already received more than 171,000 claims. Through the summer of 2005, the Manville Trust had received 690,000 claims. The most recent claims forecast performed for the trust estimated that the trust may receive up to 1.4 million additional claims.

CBO's estimates of the number and distribution of claims that would be compensated by the Asbestos Fund under S. 852 are based on forecasts similar to those that have been prepared for the Manville Trust. Therefore, it is possible that the number of claims that would be compensated under S. 852 could deviate in significant respects from our estimates in terms of cost, timing, or both.

Revenue Collections Are Uncertain

The revenue stream that would be generated by the legislation is highly uncertain. Although the aggregate amount of the levy on defendant firms and insurers is fixed over the first 30 years, a number of factors described earlier make it difficult to project the annual receipts with much reliability.

First, identifying the defendant participants and where they would fall in the different payment tiers is difficult, if not impossible, without legislation requiring the information to be disclosed. (Tier placement directly affects the amount a defendant company would pay into the fund.) Many of the prior asbestos settlements were made outside of the court system and, as such, are not public record. This lack of information means that the number of defendant companies in each tier and the resulting payments could be either higher or lower than the numbers used in preparing this estimate.

If the number of defendants is significantly higher than assumed in this estimate and if claims remain at or about the level estimated, the likelihood of insufficient funding available to settle claims would be reduced. At the end of the first 10 years, if excess monies existed, the Administrator could decrease the payments required by the defendants by up to 10 percent. Similar stepdowns in payments could also occur after 15, 20, and 25 years should funding exceed claims levels sufficiently to warrant such a reduction.

To determine the impact of a significantly higher number of defendant companies making payments, CBO estimated the revenues and the resulting effects on cash flow if there were an additional 650 companies in each of the two lowest tiers. This scenario would result in approximately 3,000 defendant companies paying into the fund and, assuming that the number of claims projected by CBO is correct, the fund would be able to pay all claims projected by CBO and there would be no early sunset due to lack of funds to pay claims.

Conversely, significantly fewer defendant participants who meet the criteria for payments under this bill would result in higher levies on the existing defendant participants to ensure the minimum aggregate annual payment of $3 billion less bankruptcy trust credits. This continuing drain on firms' resources could lead to more bankruptcies and even higher levies on the remaining firms.

Thirty years is a long time-span for a business. Even under ordinary conditions, economic circumstances lead many firms to liquidate over time. Normal attrition will be exacerbated by the costs of dealing with asbestos liability—either under the current system of litigation or under the legislation itself. The legislation's provisions for adjustments based on inequity or financial distress might mitigate business bankruptcies, but at the cost of even greater uncertainty in the value of the fund's future revenue stream. The legislation also would allow the Administrator to impose a surcharge to guarantee payment of amounts that some firms would be unable to pay. The success of this surcharge depends, in turn, on estimating the attrition among firms.

The bill proposes no absolute deadlines concerning the establishment of the Asbestos Insurers Commission. Some of the tasks involved in promulgating a methodology and producing final billings to the insurers are well defined and have specific time frames, while time frames for other activities are not clearly specified. CBO expects that appointing and confirming the five members and establishing the final allocation methodology for participating insurers would take at least 12 months. If the process were to take longer, it could delay the payments from insurers and possibly necessitate more borrowing than CBO has projected.

Federal Liability if the Trust Fund's Resources are Inadequate to Pay Claims

So long as the fund's Administrator does not borrow from the U.S. Treasury beyond the means of the fund to repay such borrowing, the government's general funds would not be used to pay claims. Furthermore, section 406 states that the legislation would not obligate the federal government to pay any part of an award under the bill if amounts in the Asbestos Fund are inadequate.

ESTIMATED LONG-TERM DIRECT SPENDING EFFECTS

Pursuant to section 407 of H. Con. Res. 95 (the Concurrent Resolution on the Budget, Fiscal Year 2006), CBO estimates that enacting S. 852 would cause an increase in direct spending greater than $5 billion in at least one 10-year period from 2016 to 2055.

ESTIMATED IMPACT ON STATE, LOCAL, AND TRIBAL GOVERNMENTS

S. 852 contains two intergovernmental mandates as defined in UMRA. First, it would preempt state laws relating to asbestos claims and prevent state courts from ruling on those cases. Second, the bill would require state governments to comply with requests for information from the Asbestos Insurers Commission. CBO estimates that any cost associated with this mandate would be insignificant and well below the threshold established in that act ($62 million in 2005, adjusted annually for inflation).

The bill would authorize $15 million from the Asbestos Trust Fund for state, local, and tribal governments to monitor and remedy naturally occurring asbestos. Any related costs to those governments would be incurred voluntarily as a condition of receiving federal aid.

ESTIMATED IMPACT ON THE PRIVATE SECTOR

S. 852 would impose new private-sector mandates, as defined in UMRA, on:

- Certain individuals filing claims for compensation for injuries caused by exposure to asbestos;
- Certain companies with prior expenditures related to asbestos personal injury claims;
- Certain insurance companies;
- Trusts established to provide compensation for asbestos claims;
- Health insurers; and
- Persons involved in manufacturing, processing, or selling certain products containing asbestos.

Based on information from academic, industry, government, and other sources, CBO concludes that the aggregate direct cost to the private sector of complying with all of the mandates in the bill would well exceed the annual threshold established in UMRA ($123 million in 2005, adjusted annually for inflation) during the first five years those mandates would be in effect. CBO cannot determine the direction or magnitude of the net impact of the bill's mandates on claimants, defendant companies, or insurance companies over the long term.

Asbestos Injury Claims

The bill would prohibit an individual from bringing or maintaining a civil action alleging injury due to asbestos exposure. Currently, individuals can file asbestos injury claims against any number of defendants in state or federal court. Under S. 852, individuals would only be able to receive compensation for asbestos-related injury by filing a claim with the federal Asbestos Fund established by the bill. A claimant would be able to recover from the fund if that person could meet the bill's medical criteria, which are based on the severity of the asbestos-related disease. Claims pending as of the date of enactment would be stayed, except for certain pending civil actions.

Some individuals who would receive compensation under current law would not be qualified to receive compensation under the bill. Further, some individuals would receive more compensation for their asbestos injury claims under current law, while others would receive

more if S. 852 is enacted. The direct cost of the mandate to claimants would be the difference between the total settlements and judgments that would be obtained under current law and the compensation that would be obtained by claimants under S. 852.

Based on information from academic, industry, and other sources, CBO assumes that claimants who would be deemed ineligible for compensation under the bill would be predominantly from the "unimpaired" category. Because comprehensive data relating to asbestos exposure, litigation, and compensation are not available, it is difficult to predict the number of claimants who would receive compensation and the amount of the settlements they would receive under current law. Unimpaired claimants historically receive multiple settlements of a few thousand dollars each from as many as half-a-dozen defendants. According to several expert sources, settlements for unimpaired claimants may range in value from $3,000 to $50,000 per claimant. Also, according to several sources, a large proportion of claims currently pending could have their settlements precluded or delayed under the bill. Further, experts predict that many individuals would probably receive less compensation in the first five years under S. 852 than under current law. Consequently, CBO expects that the direct cost to claimants of complying with this mandate could amount to hundreds of millions of dollars over the 2006-2010 period.

Assessments on Defendant Companies

Section 202 would impose a new mandate on defendant participant companies, defined in the bill as certain companies with prior expenditures related to asbestos personal injury claims. Such defendant companies would be required to pay an annual assessment to the Asbestos Fund totaling a minimum of $3 billion in each of the first five years, less any bankruptcy trust credits. Defendant participants would be required to pay over the life of the fund a total of not more than $90 billion, less any credits.

Section 204 would require the Administrator of the Asbestos Fund to impose a surcharge on each participant required to pay contributions into the fund to make up for any shortfalls in a given year due to nonpayment by some participants. The amount of surcharge to be paid would be determined by the Administrator. CBO expects that the Administrator would assess a surcharge on all firms sufficient to compensate for this loss and that the surcharge would be imposed differentially on defendant companies to reflect their different risks and to maintain their roughly equivalent contributions. However, CBO expects that there would be no surcharge on defendant companies during the first five years of the mandate.

The amount the fund would receive from defendant companies would depend on a number of factors, including the number of subject companies and the tiers into which they would fall. Based on data from industry and other sources, CBO estimates that the defendant

companies would pay $2.9 billion per year into the fund over the 2006-2010 period. According to industry and academic sources, defendant companies in aggregate currently pay asbestos litigation and settlement costs on an annual basis close to the amounts that would be required by the bill in the next five years. Thus, CBO estimates that the incremental costs, if any, for those companies to comply with those mandates would not be significant over the first five years the mandates would be in effect.

Assessments on Insurance Companies

Section 212 would impose a mandate on insurers with asbestos-related obligations. The bill would require those insurance companies to contribute to the fund, and specifies that their contribution would satisfy their contractual obligation with the defendant companies to compensate claimants for injuries caused by asbestos. The bill does not, however, specify any allocation or formula for such payments to the fund. The amount of the contribution to the fund for individual insurance participants would be determined by the Asbestos Insurers Commission established under the bill.

The aggregate contributions to the fund of all participating insurers would average $2.7 billion in the first and second year and $5 billion in years three through five. Participating insurers would be required to pay over the life of the fund a total of $46 billion, less any bankruptcy trust credits. Based on information from industry sources, CBO estimates that insurers would pay a total of about $20.4 billion into the fund during fiscal years 2006 through 2010. According to industry information on asbestos liability costs, insurance companies in aggregate would have expected costs for asbestos claims under current law close to the amounts that would be required by the bill over the next five years. Thus, CBO estimates that the incremental costs for those insurance companies to comply with the mandates would not be significant over the 2006-2010 period.

Asbestos Settlement Trusts

Section 402 would require asbestos settlement trusts, established to provide compensation for asbestos claims, to transfer their assets to the Asbestos Fund no later than 90 days after the enactment of the bill. Such a requirement is an enforceable duty, and therefore, a mandate under UMRA. Based on information from the trusts and industry sources, CBO expects that such trusts would transfer approximately $7.5 billion in assets to the fund in 2006. The cost to the trusts of the mandate for the trusts in that year would be the value of the assets net of amounts that the trusts would otherwise pay for compensation and administrative costs in that year.

Health Insurance

Section 409 would impose a private-sector mandate by prohibiting health insurers that offer a health plan from denying, terminating, or altering coverage of any claimant or beneficiary on account of participation in a medical monitoring program under this bill or as a result of any information discovered as a result of such monitoring. This mandate would have no direct cost because such a medical monitoring program does not exist under current law.

Ban on Products Containing Asbestos

Section 501 would prohibit persons from manufacturing, processing, or distributing in commerce certain products containing asbestos. The bill would require the Administrator of the Environmental Protection Agency, not later than two years after the enactment of the bill, to promulgate final regulations prohibiting commerce in such products (with some exceptions). In addition, the bill would require persons who possess a product for the purpose of commerce that is subject to the prohibition, not later than three years after the enactment of the bill, to dispose of that product by means that meet federal, state, and local requirements. A number of products and processes still use asbestos, including brake pads and linings, roofing materials, ceiling tiles, garden materials containing vermiculite, and cement products. According to industry and government sources, products are readily available to replace products containing asbestos, and the disposal of such asbestos products would not be difficult. Therefore, CBO expects that the direct cost of complying with this mandate would not be large.

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Statement of Senator Patrick Leahy
Ranking Member, Judiciary Committee
Hearing on S. 852, the FAIR Act of 2005
November 17, 2005

I thank the Chairman for convening this hearing to address two reports issued since we voted our bipartisan asbestos bill out of Committee. The witnesses here today will give us their views on what level of claims filings we should expect our trust fund to receive and the cost resulting from such claims. It should be noted for the record that this is not the first time we have received testimony addressing the issue of claims projections.

The Chairman and I have gone to great lengths to ensure a full and thorough debate on this issue. Although we cannot know with scientific certainty how many victims will file claims within the trust fund, we have received significant testimony from panels of experts. From the different projections that have been scrutinized over the past several years and from relevant experiences with bankruptcy trusts such as the Manville trust, we can reasonably anticipate a range of expected claims filings and resulting costs.

These projections have been considered by Members of the Judiciary Committee over the course of dozens of hearings and mark-ups. Like other contentious aspects of the asbestos bill, these hearings and meetings led to some consensus on what we could expect in the realm of claims filings. Nonetheless, after we reached substantial agreement on claims projections and reported the bill from Committee a new study was performed by Bates White. At today's hearing we will examine this controversial study.

The report issued by Dr. Bates contains vastly different estimates on projected claims and costs of the proposed Asbestos Trust Fund than those previously considered by this Committee. Since his estimates on the number of people who could qualify for an award are significantly higher than other estimates, it is important that we examine the underlying assumptions and methodologies used by Dr. Bates. I am concerned that his estimates do not take into account the rigorous eligibility criteria that we wrote into the legislation. I am glad that he is here today so that we can have a serious discussion about his report that has received a lot of attention from special interest critics of our bipartisan bill. I look forward to receiving the testimony from today's other witnesses about why this newest study fails to fall within the range of previous estimates.

I also look forward to hearing from a disinterested party, the Congressional Budget Office. In their extensive review of claims projections they found "broad agreement on the magnitude and types of claims for malignant conditions likely to be received by the fund." The Bates White projections for malignant conditions due to asbestos exposure are far outside this "broad agreement" found by the CBO. Certainly if one accepts exaggerated claims projections for the highest award levels, then the resulting cost estimate will be exaggerated.

In contrast, the CBO's cost estimate adopted mainstream claims projections and its

independent analysis concluded that the FAIR Act would raise sufficient funds to cover the projected claims. In their expert opinion, the CBO predicted that the asbestos claims and award values will total $132 billion over the life of the trust fund and confirmed that the 'total receipts to the Asbestos Trust Fund over its lifetime would amount to about $140 billion, including a small amount of interest earnings on its balances."

I find it reassuring to see the CBO project $132 billion as adequate to pay the claims in a contest where there are so many variables that do not lend themselves to precise projections or predictions. Even in the range of that uncertainty, CBO has estimated that the claims could be as low as $120 billion and no higher than $150 billion so that our legislation with $140 billion is reasonable and realistically calculated to cover the claims, especially in the context with the provisions for congressional review of medical criteria and award values to reduce expenditures or increase contributions in the trust fund.

I welcome the independent analysis issued by the non-partisan CBO that the Specter-Leahy bill will raise sufficient funds to fairly compensate asbestos victims and look forward to hearing the testimony today of Dr. Douglas Holtz-Eakin, the Director of the from CBO.

Yesterday, the Senate Majority Leader announced that the full Senate will take up our bipartisan asbestos bill directly after the consideration of the nomination of Judge Alito to the Supreme Court. The Chairman and I have been requesting floor time for this important legislation for some time now. I am heartened that the Senate will finally be moving forward with bipartisan legislation to provide fair and quick compensation to asbestos victims across the nation.

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Testimony
United States Senate Committee on the Judiciary
Recent Developments in Assessing Future Asbestos Claims Under the FAIR Act
November 17, 2005

Mark E. Lederer
Chief Financial Officer
Manville Personal Injury Settlement Trust

Mr. Chairman and Members of the Committee, my name is Mark Lederer. Thank you for inviting me to share my views with you here today. I joined the Manville Personal Injury Settlement Trust (the "Manville Trust") in 1988 and served as its Treasurer until 1991, when I assumed my present office of Chief Financial Officer. Throughout my employment with the Manville Trust I have been responsible for asset/liability management, including the oversight and analysis of future claim projections prepared by outside experts. Since 1988, the Manville Trust has commissioned seven such projections, beginning in 1993 and the last concluded just last summer. As a Limited Fund, the reliability of such projections is essential if the Manville Trust is to succeed in its ongoing mission to treat all claimants equitably and enhance and preserve the trust estate.

On two occasions the Manville Trust has been required to dramatically reduce its payment percentage, first in 1990 upon being declared a Limited Fund less than two years after Consummation and again in 2001. On both occasions the triggering events were huge unexpected numbers of claims. To bring its assets and liabilities back into balance, on the first occasion the Manville Trust slashed its payment percentage from one hundred percent to ten percent and on the second occasion to five percent. As a consequence of these two events, the Manville Trust is extremely concerned about the reliability of projections of future claims. Unfortunately, there is no viable alternative to

making such projections if current claimants or their heirs are to receive some compensation for their injuries within their lifetimes. Learning from the past, the Trust continues to employ such forecasts, but with great caution. Our long familiarity with the forecasting process has included frequent disappointments and engendered a certain degree of skepticism regarding all such forecasts.

My statement briefly covers the claim filing history of the Manville Trust, the past projections made of future claims and, where available, the variance between actual and projected claim filing, with some possible explanations for the differences. Given the widespread distribution of Manville's asbestos products, national projections of asbestos-related diseases by recognized experts, whether commissioned by the Manville Trust or another party, are of great interest to the Manville Trust. Therefore, insofar as they have ramifications for the Manville Trust and are within my area of expertise, I will also make some comments in regard to the recent projections made by Bates White and the CBO. However, I have not analyzed and thus have no opinion regarding the viability or adequacy of the proposed national trust fund.

The experience of the Manville Trust has important ramifications for the entire asbestos claims industry because its claim filings are very representative of the overall claim filings against all defendants. Manville was a dominant producer of asbestos, with a roughly estimated 30% share of the overall asbestos market in the U.S. RAND Corporation has estimated that through 2002 there were approximately 730,000 claimants. Over the same time period, the Manville Trust has received claims from some 558,104 claimants or over 75% of the total claimants identified by Rand, as reported in

Table 3. The claims database maintained by CRMC is one of the most complete and accurate asbestos claim databases currently in existence.

Manville Trust History

The Manville Trust was established in 1988 pursuant to the Manville Corporation's (Manville or JM) Second Amended and Restated Plan of Reorganization (the Plan). The Trust was formed to assume Manville's liabilities resulting from pending and potential litigation involving asbestos-related personal injury claims against Manville. Upon consummation of the Plan, the Trust assumed liability for existing and future asbestos disease claims. The Trust's funding is dedicated solely to the administration and settlement of asbestos disease claims.

When the Trust was established in 1988, it was hoped that there would be sufficient resources available to pay each and every Manville Trust claimant the full value of his or her claim. However, it soon became apparent that many more claims would be filed than had originally been anticipated. As a result of the additional filings, the Trust would run out of money long before all claims were paid if it tried to pay claimants the full value of their claims. To preclude that from happening, counsel for the Trust's beneficiaries worked with counsel for the Trust, under the supervision of the federal courts, to ensure that the limited resources available were distributed to all claimants fairly and equitably. Their efforts resulted in the Trust Distribution Process (TDP), the claim evaluation and payment plan approved by federal courts in 1995 as part of the Stipulation of Settlement that resolved the Findley v. Falise Class Action. The history of that legal action, which was filed in New York, is reported in the federal case reporters as In re Joint Eastern and Southern Dists. Asbestos Litigation, 878 F. Supp. 473

(E. & S.D.N.Y. 1995), *aff'd in part, vacated and remanded on other grounds*, 78 F.3d 764 (2d Cir. 1996). In September 2002, the 1995 TDP was amended ("the 2002 TDP"). In Re Joint E. & S. Dists. Asbestos Litigation, 237 F. Supp.2d 297 (E. & S.D.N.Y. 2002). The 1995 and 2002 TDPs are at available at the CRMC web site, www.claimsres.com, under the documents tab at the letter "T."

Because there are insufficient funds to pay each claimant the full value of their claim, no one whose claim is settled pursuant to the TDP receives the full value of their claim. Instead, the TDP is a pro rata payment plan, with each claimant receiving a pro rata payment as equivalent as possible to the pro rata share received by all other Trust Beneficiaries paid pursuant to the TDP. From implementation of the TDP until 2000, the pro rata share was ten percent (10%). In June 2001, in response to increased claim filings, the payment share was reduced to five percent (5%) on an interim basis, applied to claims filed after approximately October 2000. The pro rata share is currently under review by the Trust and counsel for its beneficiaries.

All of the approximately $2.2 billion funding for the Manville Trust was received at consummation in 1988. As of September 30, 2005, excluding withdrawn claims, the Manville Trust has received over 690,000 claims and resolved over 650,000 claims. From principal and income the Trust has made $3.4 billion in claim payments and has remaining assets of approximately $1.7 billion in diversified investments.

In December 1998, the Manville Trust formed a wholly-owned subsidiary corporation, the Claims Resolution Management Corporation (CRMC), to provide the Manville Trust with claim processing and settlement services. Prior to 1999, the

Manville Trust provided its own claim processing and settlement services. CRMC also processes asbestos claims and performs services for other asbestos trusts.

Manville Trust Claims Filing Experience

As of September 30, 2005, excluding duplicate, withdrawn and incomplete claims, there were 691,786 claims filed with the Manville Trust. Of this number, 17,740 were filed by claimants whose exposure to Manville's asbestos products occurred outside the U.S. These foreign claims have been filed sporadically, with the most recent surge in 2003. Those claims came principally from Germany and England, and consisted of a far more serious disease mix compared to U.S. claims. Table 1 breaks down these claims by disease across filing years.

To increase the comparability of Manville Trust claims to claims that may be filed against the proposed national trust, my analysis for this statement includes tables and charts that exclude foreign claims and a very modest number of other claims missing exposure information, to arrive at a U.S. exposed filed claim population of 673,924 claims. In that population, 14,669 claims with U.S. exposure were received in the first 9 months of 2005. For some tables and charts, I have annualized this 2005 number to facilitate comparisons to full year projections, making the total estimated filed claim population through 2005 about 678,814 claims. *See* Table 2 and Chart 1.

Except for two spikes, the first in 1989 and the last in 2003, filing of cancer claims has been steady, with an upward trend. By contrast, the filing of non-cancer claims has been very erratic, with a pronounced upward trend until recently. For the cancer claims, the spike in 1989 probably is due to the filing of claims that were stayed during the six years (1982 to 1988) that Manville was in bankruptcy. In the following

year, cancer claim filings dropped dramatically and then increased only modestly over time. The 2003 spike probably is due to a rush to file claims prior to an October deadline for filing claims pursuant to the 1995 TDP. The 2002 TDP tightened medical and exposure criteria for some diseases and changed the Scheduled Values for all claims.

Under the 2002 TDP, the criteria for mesothelioma claims were unchanged and their Scheduled Values significantly increased from $200,000 to $350,000. The criteria for lung and other cancers were tightened and Scheduled Values changed in ways that encouraged the filing of all then identified claims on an accelerated basis to qualify them based on the less restrictive 1995 TDP rules. For example, the 1995 TDP assigned a Scheduled Value of $60,000 to lung cancer claims for which there was no evidence of underlying asbestos-related disease, but for which claimants could demonstrate: 1) fifteen years of heavy occupational exposure; 2) in employment regularly requiring work; 3) in the immediate area of visible asbestos dust. Under the 2002 TDP, those claims must be individually reviewed, a more intensive review process with a less certain outcome, an average award of $40,000 and an award cap of $50,000. Even lung cancer claims <u>with</u> underlying disease, for which the Scheduled Value was increased slightly from $90,000 to $95,000, face more rigorous exposure requirements under the 2002 TDP. Those requirements, referred to as Significant Occupation Exposure (SOE), are part of the legislation now under consideration.

These incentives for claimants to file some of their claims prior to the October 2003 deadline may have focused higher than usual law firm attention on all of their Manville claims in 2003. This may have been a factor contributing to higher than usual mesothelioma claim filings in 2003.

The Manville bankruptcy stay that led to the spike in cancer claims also explains the surge in non-cancer claim filings in 1989. The stay on all Trust payments (except those to exigent health and financial hardship claimants) from 1990 until 1995 (during a Class Action restructuring which brought the Trust's asset/liability ratio back into balance) contributed to the decline that followed. With approval of the 1995 TDP, based upon Scheduled Disease criteria and values, non-cancer claim filings again rose steeply, in part as a result of the stay, but also as a result of the streamlined claims processing system. The decline in 1997 and slower growth thereafter may have been due in part to the implementation of the Manville Trust's medical (x-ray) audit program and the rejection or downgrading of thousands of claims. Claimants' challenge of the x-ray audit program through litigation was resolved by a settlement in 1999, and non-cancer claim filings again rose dramatically. They plunged again coinciding with full implementation of the 2002 TDP's more restrictive criteria and, for most claims, less generous Scheduled Values. Using the date of earliest diagnosis, rather than filing, to track filing patterns over time smoothes out some of the peaks and valleys that appear in the data by filing year. *See* Chart 3.

All of the explanations just discussed have their origin in events directly related to the Manville Trust, but events external to the Trust, which impact asbestos claims against all defendants, can have an equal or greater impact. For example, while implementation of the 2002 TDP could alone have led to lower claim filings, factors such as uncertainty created by the pending Fair Act, the ongoing governmental investigations into claim screening practices, and the prolonged resolution of the many pending asbestos-related bankruptcies, also impact claim filings. Given the longevity and maturity of asbestos

litigation, it is surprising the extent to which current events continue to influence fluctuating filing rates.

Cancer claims exhibit less variability because they are firmly grounded in a dose response biological process, something I will return to later, whereas non-cancer claims are far more variable, influenced more by socioeconomic and legal considerations. Medicine plays a part, but is part art and part science, leading to shifting definitions of what constitutes a non-cancer claim. As a result, the ratio of non-cancer claims for every cancer claim has also varied significantly over time. *See* Chart 2. Since no accepted dose response model exists to project non-cancer claims, this ratio, unstable as it is, forms the basis of most non-cancer projections, with predictable results.

Over time, in response to changing TDP requirements, the Manville Trust has changed the way it classifies diseases. Currently, the Manville Trust reports five summary disease groups, within which it maintains more detailed disease codes. Since the implementation of the 1995 TDP, each claim is first evaluated against the criteria in the TDP. Depending on whether the claim is processed pursuant to the 1995 or 2002 TDP, a disease Category (1995) or Level (2002) is assigned. Claims evaluated pursuant to the pre-TDP criteria are only assigned a summary disease. A summary description of the Categories and Levels appears in Table 4, with a complete description in the 1995 and 2002 TDPs. The current classification of claims by current detailed disease by summary disease appears in Table 5. The disease breakdown for 2002 TDP claims filed since 2004 appears in Table 6.

History of Manville Trust Claims Projections

The Manville Trust's track record for accurately projecting future claims is decidedly mixed. A summary of all seven Manville Trust claims projections is provided at Table 7. For a variety of reasons, the oldest forecasts, dating back to 1993 and earlier, are poor, even for cancer claims. Except for the historical perspective they provide, they shed little light on today's claim projection concerns. There may be many reasons for this, including the radically different approach to processing, evaluating and paying claims since the implementation of the TDP in 1995. Over time, the Manville Trust has been able to improve the reliability of its forecasts, particularity for malignancy claims, but whether the newer forecasts will withstand the test of time remains a question. It was not until the latest forecast, prepared by Tillinghast in 2005, that the baseline total forecast over the life of the Manville Trust has declined from the all earlier projections.

A starting point for reviewing past Manville projections is a forecast prepared by Dr. Alexander Walker that was published in 1983, shortly after Manville entered bankruptcy.[1] Dr. Walker's central projection was for 45,000 claims to be filed between 1982 and 2009, with a reasonable lower bound of 30,000 claims and a "very indefinite upper bound" of 120,000 claims. The Manville Bankruptcy Plan's Disclosure Statement, released in 1986, stated that 83,000 to 100,000 claims could be expected over the life of the Trust and it was anticipated that adequate assets would be available to pay all claims in full.

Within 12 months of the consummation of the Trust, over 100,000 claims were received and in 1990 it was judicially determined that the Trust was a Limited Fund, with insufficient assets to pay all present and projected future claims in full, as anticipated by

[1] Alexander M. Walker et al., *Projections of Asbestos-Related Disease 1980-2009,* 25 J. Occupational Med. No. 5, 409 (May, 1983).

the Plan. However, when you break Dr. Walker's estimate down by disease, his cancer estimates are far better than his overall estimate, and would have been better yet had he not excluded from his estimates claims from foreign claimants, women claimants and "other" (non-mesothelioma or lung cancer) cancer claimants, claims that probably didn't exist in any meaningful numbers at the time he made the projection. These sub-populations continue to pose a forecasting challenge.

In addition, Dr. Walker cautioned that the filing of claims on behalf of large numbers of persons with only minimal x-ray changes would dramatically increase the estimate to over 600,000 claims. This compares to 573,000 actual non-cancer filings during the period. If this observation had been given greater weight in arriving at the preferred range, the estimate would have been far closer to actual. The lesson here is not that hindsight is 20/20, but that seemingly extreme events do occur sometimes with surprising speed and frequency and are worthy of more consideration.

In 1993, in the context of the Findley v. Falise Class Action, the Manville Trust retained Resource Planning Corporation (RPC or ARPC) to prepare the first of what would be a series of future claims projections. While the Manville Trust made available to ARPC its claims database and there may have been some outline of the emerging 1995 TDP that was to come, there were no claims filed pursuant to such a distribution process upon which to build their projections. The 706 Panel convened by the courts to make their own projections of future claims were similarly limited. While the resulting preferred forecasts of each of the parties, approximately 302,000 claims for ARPC and 317,000 claims for the 706 Panel, were reasonably close, it was widely understood that the actual number of future claims could be substantially different. Unlike Dr. Walker's

earlier estimates that ended in 2009, the projection by ARPC and the 706 Panel extended as far as 2049.

The Manville Trust again retained ARPC in 1995 to update its prior forecast and in 1997 to prepare a new bottoms-up projection. By 1997 the Manville Trust had some experience with filings under the 1995 TDP and that experience indicated that the prior estimate might be too low. However, filings pursuant to the 1995 TDP were still in their infancy and the filings trends were difficult to interpret because of the confounding influence of the prior stay on payments in the Class Action litigation and the early results of the Manville Trust's medical x-ray audit program (medical audit) that indicated that many claims would be downgraded in severity or denied outright. The 1995 and 1997 forecasts were for 511,000 and 550,000 claims, respectively.

Although the Manville Trust had acquired some experience with the 1995 TDP before preparing the 1997 projection, it occurred in the middle of the Manville Trust's medical (x-ray) audit program and may have been too conservative because of the early results of that program. The selection of the appropriate calibration period to gauge the likely number of non-malignancy claims to be filed for every malignancy claim is difficult.

In 2001 the Manville Trust again retained ARPC to prepare another future claim projection.[2] At this time, the Manville trust had received many more claims than previously estimated, partly in response the cessation of its medical audit program, the new wave of claim screenings and the filings of claims based on non-traditional

[2] In 2000, the Manville Trust retained both ARPC and Hamilton, Rabinovitz & Alschuler (HR&A), to prepare new projections for the exclusive and very limited purpose of the Manville Trust's outstanding litigation against the tobacco companies. It was not a projection of total future claim liabilities required for the pro rata share computations

exposures, that is exposures not previously identified or given any or much weight in the existing asbestos literature, particularly the pioneering work of Dr. William Nicholson. Recognizing the growing importance of understanding the range of possible projections, ARPC was requested to prepare multiple projections and assign a relative, subjective weight as to the likelihood of each outcome. As a consequence, they provided 8 different projections, with a range of 748,000 to 2,685,000 claims and a weighted average of 1,422,000 claims between 2001 and 2049. However, the individual projection closest to the weighted average was assigned only a likelihood of about 17%. In other words, the weighted average projection was the most likely of those provided, but it was not particularly probable.

The last and current projection was prepared by Tillinghast Towers Perrin (Tillinghast) in 2005. A major difference between this projection and all previous projections was that is was based on the 2002, implemented in 2002. Therefore, the Manville Trust had some actual filing experience with the new process upon which Tillinghast could base its projections, including the impact of Significant Occupational Exposure (SOE) and other more stringent medical criteria. In order to better assess the impact of these new criteria and augment the data provided on the newly filed 2002 TDP claims, a sample was drawn from the more recent 1995 TDP claims to ascertain how they might have been evaluated if the new 2002 TDP had been in effect earlier. Based on the 2002 TDP claims filed, the above sample and other information available to Tillinghast, they projected a range of 600,000 to 1,500,000 claims with a weighted average of about 900,000 from 2005 to 2054. If the foreign exposed claimants are excluded, the range becomes 573,000 to 1,400,000 claims with a weighted average of 850,000 claims. In the

U.S. exposed population, the cancer rate ranged from 9% to 15% with an average of 13%.

In general, projections of cancer claims have been more dependable, as one would expect given the historical filing patterns exhibited earlier and the nature of these claims. Measured from the 2001 and later projections, the forecasting error is quite low, although the period of comparison is only five years and the year to year variability is great. *See* Tables 10 and 11. While some progress has been made on non-cancer projections, the forecasting errors are still substantial, but opposite the direction previously seen. In other words, more recent forecasts have projected more non-cancer claims than have been received. Reasonable explanations for this shift include the 2002 TDP and uncertainties concerning the future definition and value of these claims in the broader universe of asbestos claims.

Forecast Variances

I have computed by disease the forecast variances (the number of claims forecast in any given period less the actual over the same period divided by the forecast) for the forecasts prepared in 1993, 1997 and 2001. With respect to cancer claims, actual filings are 77% above the 1993 forecast, 40% above the 1997 forecast and 8% below the 2001 forecast. Although the 2001 forecast is only 5 years old, it is encouraging that is much closer to actual filings.

With respect to non-cancer claims, actual filings are 163% above the 1993 forecast, 12% above the 1997 forecast and 22% below the 2001 forecast. In other words, the huge 1993 underestimation has been eliminated entirely in the 2001 forecast and the 2001 forecast on a cumulative basis now exceeds actual, principally due to a dramatic

reduction in claim filings beginning in late 2003 coincident with the change over to the new 2002 TDP that raised the criteria and reduced the scheduled value for almost all non-cancer claims. However, the explanation for the decrease may also be the tremendous uncertainty surrounding the proposed Fair Act, the ongoing asbestos-related bankruptcies and government investigations into claims screening practices, which may have discouraged lawyers from pursuing such claims. As these matters are resolved, the longer-term trend in non-cancer filings hopefully will become clearer.

For a variety of reasons, projections of cancer claims, especially mesothelioma, but lung cancers as well, should be far more reliable. The absence of accepted bio-actuarial (dose response models) and the barely discernable nature of the overwhelming number of non-cancer diseases, many without any impairment, has made forecasting these claims more a function of socioeconomic and legal considerations than epidemiology and medicine.

Under these circumstances, forecasters often have extrapolated from the historic relationship of non-cancer to cancer claims to predict the future. Unfortunately, despite the passage of 23 years since Manville declared bankruptcy, the asbestos claim and litigation landscape continues to change, further complicating projections based on past filing patterns.

Applicability of the Manville Trust Experience

Projections can be no more reliable than the data upon which they are founded. Given the continuing debate regarding the extent of the exposed population and the degree of exposure necessary to trigger the onset of non-cancer diseases, the absence of a comprehensive claims database including the settlement history of multiple defendants is

particularly troubling, especially given that the information exists today. If the problem of forecasting non-malignant claims is a socioeconomic and legal problem, then such information is critical to significantly improving upon past forecasts.

More importantly in the context of the proposed Fair Act, a good understanding of prior filing and settlement activity of lung cancer claims may be more illuminating (and achievable) than trying to resolve the questions of the exposed population and the rate of underlying asbestos markers within that population. There is a strong filing pattern discernable in the past Manville claims filing data that has led to reasonably reliable forecasts and therefore, absent radical external changes, reasonable confidence in future predictions.

Whether the treatment of lung cancers within the Fair Act is a significant departure from past practice is unclear. The medical and exposure criteria for such claims are more restrictive than the Manville Trust's criteria. Therefore, one would expect fewer, not more claims, based on that element alone. While the 1995 TDP Scheduled Value payments made by the Manville Trust for such claims, ranging from $6,000 to $9,000 (based on the ten percent (10%) pro rata payment percentage in place until June 2001), were substantially less than the scheduled compensation in the Fair Act, it is the expected total net recovery, which may be far higher, that drives claiming behavior. Unlike the existence of sufficient exposure and underlying non-cancer disease, this question should be definitively answerable from existing data.

Even if such filing and recovery information cannot be made available so as to strongly establish whether the Fair Act represents a radical departure from past patterns, the Manville Trust, and by extension all defendants, have been inundated with hundreds

of thousands of lesser valued ($600 - $2,500) claims on behalf of unimpaired individuals. If a large population of more highly valued eligible lung cancer claimants existed in the past, why didn't they file claims as well?

I do not know the extent to which the CBO or Bates White projections are based upon data which has not been made available to me or to those who have assisted the Manville Trust with future claim projections. Thus questions related to these projections are best addressed to those who prepared them.

WRITTEN TESTIMONY
OF
DR. DENISE NEUMANN MARTIN
NERA ECONOMIC CONSULTING
FOR THE HEARING
ON RECENT DEVELOPMENTS IN ASSESSING FUTURE ASBESTOS CLAIMS UNDER THE FAIR ACT

TESTIMONY ON FORECASTING CLAIMS AGAINST THE PROPOSED NATIONAL TRUST RESPONSE TO THE BATES WHITE VALUATION

HEARING HELD BY:
UNITED STATES SENATE COMMITTEE ON THE JUDICIARY

HEARING DATE:
NOVEMBER 17, 2005

HEARING LOCATION:
ROOM 226
DIRKSEN SENATE OFFICE BUILDING
WASHINGTON, DC

FORECASTING CLAIMS AGAINST THE PROPOSED NATIONAL TRUST

Response to the Bates White Valuation

I. Qualifications

I am Dr. Denise Neumann Martin, Senior Vice President of NERA Economic Consulting ("NERA"). I received my undergraduate degree at Wellesley College and my Ph.D. in Economics at Harvard University. Since joining NERA in 1991, I have spent a substantial portion of my time estimating future liabilities of defendants involved in asbestos and other types of tort litigation, and I am co-author of a reference text, "Estimating Future Claims: Case Studies from Mass Torts and Products Liability".

II. Executive Summary

The Congressional Budget Office ("CBO") has estimated that the cost of compensating asbestos personal injury claimants under the FAIR Act is between $120 and $150 billion. The CBO used standard methods for forecasting claims in the tort system, the same methods used to make claims projections when the FAIR Act was initially proposed in 2003. Similar approaches have been used by NERA in our consulting practice and have been used by Bates White to prepare forecasts for its clients.

In preparing its current FAIR Act estimate, however, Bates White rejected these standard methods. Instead, it adopted an approach that more than doubles the population of workers estimated to have been exposed to asbestos. Having expanded the population, Bates White also overestimated future lung cancer and other cancer cases by making no adjustment for the exposure requirements mandated under the FAIR Act and exaggerating the proportion meeting medical requirements. Finally, the Bates White study fails to apply a claiming rate, effectively assuming that 100 percent of those eligible will sue. The Bates White $300 billion estimate, which it describes as "conservative," adds more than 350,000 cancer cases (Levels VI and VII) that by standard methodologies, including that of the CBO estimate, would not add to the liability of the trust.

A. The Bates White analysis overestimates the eligible population and underestimates the effects of the exposure and medical requirements

A number of flaws inflate the Bates White estimate of the "eligible population" making it significantly higher than that of other published and accepted studies. First, the Bates White estimate of the exposed population includes many industries and occupations in which workers are likely to have had little or no exposure to asbestos. Second, Bates White assumes a higher "turnover rate"– *i.e.*, people moving in and out of exposed industries and occupations. Use of this higher rate increases the number of exposed workers, but Bates White fails to adjust for the fact that, under this assumption, each individual will also have a shorter duration of exposure. This oversight has important consequences because it ignores key provisions of the bill-particularly the 15-year and 12-year weighted exposure requirements for Level VI and VII, respectively—that cut down on the potentially eligible population. Finally, the Bates White analysis overestimates the prevalence of pleural changes because it relies on rates reported in studies in which the populations are more heavily exposed than the population that Bates White estimates. Making basic adjustments, described below, to the Bates White analysis reduces the rate to 5 percent, half the rate that Bates White asserts is "conservative." This overestimation, which leads Bates White to conclude that many more lung and other cancer cases would be eligible for compensation than the CBO estimates, occurs for several reasons:

1. Some of the studies on which Bates relies overstate the prevalence of pleural plaques in the general population because they study individuals who are already severely ill or deceased.
2. Some of the studies that examined the prevalence included medical conditions that would not qualify under the trust.
3. The subject populations for some of the studies were more heavily exposed to asbestos than would be the case for the exposed population estimated by Bates White.
4. Using overall pleural prevalence leads to double counting of cases that would qualify to file for cancers with underlying pleural versus underlying asbestosis.

B. Use of the Bates White Results to Value Liability Under the FAIR Act Relies on the Unrealistic Assumption that the Propensity to File a Claim is 100 Percent

The only way that the Bates White analysis is relevant to evaluating the FAIR Act is if it projects claims that will qualify for payment under the Act. In his responses to questions by the staff, however, Dr. Charles Bates of Bates White admitted that while he describes his estimate of $300 billion as "conservative", he has not calculated claims but *entitlements*; that is, Bates White has made no estimate of the portion of these entitlements that will result in claims. In its slide presentation, however, Bates White overlooks the distinction between eligible and filed claims, thereby implying without basis that the claiming rate would be 100 percent.

Given the long history of asbestos litigation in the U.S., it is clear that claiming rates will not reach 100 percent. In the current tort system, for example, the filing rate for mesothelioma claims—a terminal disease whose only known cause is asbestos—is less than 100 percent even according to the Bates White study. There are a number of reasons to believe, as CBO evidently did, that these observed tort system claiming rates are indicative of claiming rates under the FAIR Act.

1. Asbestos litigation is a mature tort and plaintiffs' attorneys already have strong monetary incentive to file all possible claims.
    a. Claims of the type forecasted to surge under the Bates White analysis have already been paid in the tort system.
    b. The FAIR Act will not create incentives to increase cancer filings above those existing in the tort system.
2. The FAIR Act requirements for lung and other cancers are, if anything, stricter than the requirements of the Manville and other asbestos trusts.

III. The Bates White Analysis Overestimates the "Eligible" Population and Underestimates the Impact of Exposure and Medical Requirements

The Bates White report estimates that an exceptionally large "exposed population" will meet the occupational and exposure criteria specified by the FAIR Act. Its estimate – more than 42 million people alive as of 1980 – far exceeds the 21 million figure estimated by Dr. William Nicholson in his 1982 seminal published study of asbestos-related illness.[1] Bates White does not provide details on how its population was estimated. However, we have been able to determine that the Bates White estimate of the exposed population greatly exceeds other published, accepted estimates for two primary reasons:

1. Occupations and industries with little or no exposure to asbestos are included.
2. Higher turnover rates are used. A higher rate of labor turnover leads to a larger exposed population as more people move through industries where there is workplace asbestos.

Additionally, the Bates White study overstates the population of valid claims by failing to apply medical and exposure screens required under the FAIR Act. Below, we review these points in turn.

A. The Bates White Estimate Includes Industries and Occupations with Little Or No Asbestos Exposure

Under the FAIR Act, eligibility will require 15 weighted years of "substantial exposure" to asbestos for Level VI claims and 12 weighted years of exposure for Level VII claims. The Bates White analysis does not impose these exposure requirements, however, instead including in its estimate of the "eligible" population industries and occupations with little or no exposure to asbestos.

The Bates White estimate of the exposed population alive as of 1980 is nearly twice the estimate contained in the Nicholson study. This increase occurs because Bates White adds many

[1] Nicholson, William J, George Perkel and Irving Selikoff, "Occupational Exposure to Asbestos: Population at Risk and Projected Mortality- 1980-2030", American Journal of Industrial Medicine, 3:259-311 (1982).

industries and occupations to the list identified by Dr. Nicholson.[2] Some of these additions have been important sources of claims in recent years, and their inclusion is reasonable and has become standard practice. In his November 7 response to questions posed by Senator Specter, Dr. Bates properly points to the steel industry in this regard. But, Dr. Bates' addition of industries and occupations to the Nicholson list is not confined to industries, like steel, that have produced a substantial number of claims. Dr. Bates also includes in his asbestos-exposed group barbers, beauticians, bus drivers, taxi drivers, and parking attendants, among others. These groups are unlikely to qualify for compensation under the FAIR Act.

To qualify for compensation under the FAIR Act, a Level VI (other cancer) claimant would have to show 15 years of "working in areas immediate to where asbestos-containing products were being installed, repaired, or removed under circumstances that involved regular airborne emissions of asbestos fibers . . . ." (section 121(b)(16)(B)). A Level VII (lung cancer/pleural) claimant would have to show 12 years of such exposures. We find no explanation for the assumption that people in such occupations would qualify for compensation under the FAIR Act. And yet, these people are far more numerous in the Bates White expanded "exposed population" than steelworkers are. The large exposed population estimated by the Bates-White report – more than half of the male population 18 years or older in 1980[3] – suggests that all members of these industry/occupation groups were assumed to be exposed with sufficient duration to satisfy the FAIR Act requirements.

The estimated number of mesothelioma claims in the Bates White report provides further evidence that the expansion of the Nicholson exposed population should not, in fact, result in a major increase in the number of people who would meet FAIR Act requirements for other cancer and lung cancer. Although Bates White's exposed population is more than twice the size of Nicholson's, the forecasted number of mesothelioma claims, 49,000, is actually *less* than the Nicholson forecast of 66,518. This result would occur if the average level of exposure of the people that Bates White added to the exposed population was very low. However, with such low

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[2] The sources of these additions are unclear. The main cited source is the industry/occupation matrix from Cocco and Dosemici (1998). These authors, in turn, cite "computerized databases (OSHA files, NIOSH inspection data base), unpublished industrial hygiene reports, and personal experience."

[3] U.S. population from statistical abstract of the United States. The male over 18 population is the appropriate comparison group. Asbestos claimants are almost entirely male and individuals under 18 in 1980 would have no occupational exposure to asbestos.

rates of exposure, it is highly unlikely that these additional individuals would be able to meet the exposure criteria of the FAIR Act for lung cancer and other cancer claims.

B. The Bates White Forecast Increases the Exposed Population by Using Higher Turnover Rates but Does Not Account for the Effect of Shorter Exposure Periods

The second source of the increase in the size of the exposed population estimated in the Bates White report is the use of a higher turnover rate than was assumed by Dr. Nicholson.[4] Annual turnover rates reflect the proportion of the workforce in a given occupation or industry that is replaced during the course of the year. Assuming a higher turnover rate when preparing a forecast of asbestos liability increases the number of people estimated to have been occupationally exposed to asbestos because more people rotate through industries with potential exposure. However, increased turnover also *reduces* the average length of time in asbestos-exposed groups: with higher turnover, workers spend less time in each industry. The Bates White analysis makes no adjustment for this reduced duration of exposure, however. This oversight has important consequences because the FAIR Act requires 12 years of exposure for lung cancer claims and 15 years for other cancer.

Dr. Bates implicitly acknowledges this consequence of changing the turnover rate, explaining that the higher turnover rates should not affect the incidence of *asbestos-related* disease. This conclusion follows from the assumption made by OSHA and others that lung and other cancers are related to exposure (dose) in a linear way.

In contrast, the number of background, non-asbestos related lung cancers and other cancers will increase proportionately with the population. The Bates White analysis assumes that claims for these diseases, which are *not* caused by exposure to asbestos, will be filed under the FAIR Act and this assumption accounts for a large proportion of the additional 350,000 lung cancer and other cancer cases estimated in the Bates White analysis.

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[4] The Bates White report supports its assumptions on labor turnover by referencing unpublished, non-peer reviewed academic work based on a survey (the Panel Study of Income Dynamics) that was not designed to track occupational mobility.

C. The Bates White Forecast Does Not Apply the Exposure Requirements of the Fair Act

Our analysis indicates that most of the background cancer claims and some of the excess cancer claims counted in the Bates White report will not meet FAIR Act exposure requirements.[5] Bates White has not provided a detailed description of their calculation of exposure durations. Using standard methods to measure duration of exposures in the industries and occupations identified in the Nicholson paper, we find that less than half the projected cases of lung cancer and other cancer would meet the FAIR Act exposure requirements. Using the asbestos exposed population estimate developed by Bates White, the proportion of future cases of lung cancer and other cancer that would meet these exposure requirements would be lower still. Indeed, by definition, very few lung cancer and other cancer cases arising in occupations and industries with little or no exposure to asbestos would meet the substantial exposure requirements.

While it is true that a larger population will exhibit a larger number of background cancers, in a population that has little or no exposure to asbestos, fewer of these cancers will meet the substantial exposure requirements or the pleural disease requirements (for Level VI and Level VII compensation) required under the FAIR Act. This length of exposure requirement is never mentioned in the Bates White report and does not appear to have been taken into account. Indeed, their analysis apparently counts every worker who had ever spent even a day in any of the supposedly exposed industrial or occupational groups, every taxi driver and beautician, as someone who could assert a valid claim under the FAIR Act.

D. The Bates White Forecast Does Not Apply Stated Medical Screens Properly, Overestimating the Number of Background Lung Cancer and Other Cancer Cases That Would Meet Requirements

The medical criteria of the FAIR Act require claimants to show evidence of pleural changes to satisfy the requirement for Level VI or Level VII compensation. The Bates White analysis overestimates the expected prevalence of pleural changes in future cases of lung and other cancer thereby overestimating the number of claims that will be filed and paid.

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[5] More than half the population developed by Dr. Nicholson of workers with substantial exposure to asbestos have less than twelve weighted years of exposure (Nicholson Table XIII illustrates that the average duration of exposure in each industry and the median duration of exposure is less than the mean given the exponential

More specifically, the Bates White prevalence estimate for pleural changes of 10 percent is based on values from published studies.[6] As detailed below, these studies use different definitions of pleural disease and examine groups of people that are different from the exposed population used in the Bates White forecast and so cannot be used directly to estimate the number of potential claimants arising from that population.[7] Making basic adjustments to the Bates White interpretation of the studies lowers the pleural prevalence used to estimate the eligible lung cancers from 10 percent to 5 percent.[8] These adjustments are described below.

1. Some of the study populations consisted of people seeking treatment and so likely overestimate overall prevalence

Some of the studies of pleural prevalence cited by Bates White yield an overestimate of the prevalence in the exposed population because participation was more likely among those with higher risks of health problems (a problem known as selection bias). For example, the Epstein study was conducted of subjects who were admitted to the hospital. The Frumkin and Wain studies were conducted of autopsy subjects.

It is not possible to quantify the extent of selection bias in these studies, however the prevalence reported in the Epstein study is three times higher than the prevalence reported in the other four studies, suggesting a stronger bias. We omit this study from our calculations both because of concern about selection bias and because it did not measure pleural changes but examined rates of interstitial fibrosis. We also adjust average prevalence for the McLoud study by excluding the study participants who were selected because they were clinic patients.

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distribution he assumes). The industries and occupations added by Bates White have less intense exposures and so an even smaller fraction would meet the FAIR Act requirements.

[6] Bates White also cites the results of the Manville audit reported in the Penn State study. However, this study of claims is not representative of the entire eligible population estimated by Bates White. "The Manville Personal Injury Settlement Trust X-Ray Audit: An assessment of the Identification of the Underlying Disease Process Implications for Medical Review by Certified B-Readers", Localio A. Russel, Allen Kunselman & Bryan Crissinger. December 8, 1997.

[7] Bates White also misquoted some of the studies' results. We correct these errors, some of which actually increase the adjusted prevalence.

[8] These adjustments do not account for the effect of higher exposures in the study samples nor the fact that the Bates White study uses general population studies as a proxy for workers with low asbestos exposure.

2. Average prevalence for some studies include unilateral pleural changes rather than only bilateral pleural changes as defined in the FAIR Act

Level VI and Level VII claimants must provide evidence of bilateral pleural changes, not just unilateral changes. Several studies (Rogan, Schwartz and McLoud) relied upon by Bates White did not distinguish between findings of unilateral and bilateral changes and, consequently, overstate the proportion of workers who would be able to meet this requirement. An average of 45 percent of the pleural changes reported by Michaels and Frumkin are unilateral. This proportion was used to adjust the study results reported by Bates White that did not distinguish unilateral cases.

3. The average duration of exposure of the study subjects is higher and so the pleural prevalence is higher than the exposed population in general

The prevalence of pleural changes increases with cumulative exposure to asbestos. Studies cited by Bates White of workers with medium or high intensity exposures generally include subjects with longer-term exposure to asbestos than the current surviving population of exposed workers. This is, in part, because these studies were typically sponsored by unions representing workers with the highest exposures and longest periods of exposure but also because they were mainly conducted in the 1960s and 1970s before occupational asbestos exposures began to decline.

Several of the cited studies report the prevalence separately for the groups of workers with different durations. These studies illustrate the increase in prevalence that results from longer periods of exposure. Bates White does not adjust the study values to account for the shorter average exposure periods of the eligible population.

4. Studies of pleural prevalence in the general population overstate the prevalence for workers with low intensity exposure

The average prevalence of pleural changes in studies of the general population cited by Bates White is used as an estimate of the prevalence for workers in occupations with historically low intensities of exposure to asbestos. The general population estimates are too high for this purpose because the general population includes workers with high and medium intensity

exposures to asbestos that raise the overall prevalence of pleural changes by more than the workers with no exposure that lower it.[9]

5. Use of overall pleural prevalence overstates the proportion who will make Level VII claims by including those with underlying asbestosis who will make Level VIII claims

The prevalence of pleural changes used to estimate future Level VII claims must exclude the proportion of workers with pleural changes and qualifying evidence of asbestosis. These workers will not file Level VII claims, instead filing Level VIII claims. The average prevalence reported in the studies cited by Bates White, however, does not exclude these cases.

The proportion of those with pleural changes and asbestosis can be inferred from six of the studies cited by Bates White (Abelda, Baker, Michaels, Robins, Schwartz and Sprince). The average proportion is 29 percent.

IV. Use of the Bates White Results to Value Liability Under the FAIR Act Relies on the Unrealistic Assumption that Claiming Rates Would Be 100 Percent

After overestimating the eligible population and the number of cancers that will qualify for payment, Bates White then unrealistically assumes a 100 percent claiming rate—that is, every single eligible claimant will file a claim. Such an assumption is unreasonable, however, supported neither by experience in the tort system nor by the experience of other trusts.

Dr. Bates admits in his response to the Senate questions that "[w]e do not estimate a filing rate. Rather we estimate the number of individuals who would qualify for compensation under the FAIR Act." However, his presentation slides state that the $300 billion figure is "an estimate of the value of claims" and directly compare this figure with the CBO estimate. While the presentation may leave the impression that the Bates White estimate is comparable to the CBO estimate, it simply is not.[10]

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[9] The prevalence in the low intensity exposure population can be computed from the general population estimates using the proportions of the eligible population with no, low, medium and high exposures reported by Bates White, along with the adjusted survey results.

[10] The Bates White presentation slides, p. 14.

Below, we review the evidence for the CBO's assumptions that claiming rates under the FAIR Act would be no higher than rates in the tort system. First, claiming rates historically have been well below 100 percent, even for mesothelioma, which is a signature asbestos-related disease. Second, the FAIR Act would not be expected to increase filing rates above these historically observed rates, because strong incentives exist in the tort system for plaintiffs' attorneys to file asbestos claims. Indeed, bankruptcy trusts, and many solvent defendants, already pay claims that would qualify for Level VI and Level VII payment under the FAIR Act. Third, certain of the medical and exposure criteria of the FAIR Act are stricter than the criteria used by trusts and defendants in settling claims currently, indicating the propensity might be lower under the FAIR Act, rather than higher.

A. Claiming Rates Have Never Been 100 Percent Whether in the Tort System or Against Asbestos Trusts

Asbestos is a mature tort litigation with a long history of filings, verdicts and bankruptcy trusts. Despite this history, data from both the tort system and existing asbestos trusts provide evidence that the propensity of claimants to file a claim is far lower than 100 percent. Bates himself has estimated that even for mesothelioma, for which asbestos exposure is virtually the only known cause, claiming rates have been only 60 to 70 percent.[11]

In his responses to the Senate's questions, Dr. Bates provides the following estimates of historical filing rates for these diseases:

> Recent lung cancer tort filings account for fewer than four percent of lung cancer incidence in the occupationally qualified population and approximately 12 to 22 percent of the lung cancer incidence in the occupationally qualified population with pleural conditions. Recent other cancer tort filings account for less than one percent of other cancer incidence in the occupationally qualified population and approximately three to seven percent of the other cancer incidence in the occupationally qualified population with pleural conditions. These filing rates are estimated using Manville Trust claims, which eventually include virtually every filed tort claim.[12]

[11] The Bates White presentation slides, p. 34.

[12] Bates response to Senate, p. 10.

As these statistics make clear, while asbestos claims have been filed in the U.S. since the early 1970s and the litigation is described as 'mature', the historical filing rates have been well below 100 percent for most diseases, including mesothelioma.

B. The FAIR Act Will Not Create Incentives to Increase Filings Above Those That Exist Currently in the Tort System

The Bates White analysis presumes that a large number of potential lung cancer and other cancer claims exist but are not filed in the current system, but that these same claims would be pursued and paid under the FAIR Act. In other words, the Bates White analysis assumes that the propensity to bring claims of this type would be higher under the FAIR Act than it is under the current system. The only reason to believe that other cancer and lung cancer claiming rates would be higher under the FAIR Act is if the compensation of these claims in the tort system had not made it worthwhile for the plaintiffs' attorneys to pursue them in the past. This hypothesis is contradicted by two key facts: first, plaintiffs' attorneys have every incentive to file a claim in the current system; second, if anything, the FAIR Act requirements for payment of lung and other cancer claims are more stringent than those that exist currently. Below, we discuss these elements in turn.

1. Plaintiffs' Attorneys Have Every Incentive to Locate All Valuable Claims in the Tort System

Evidence that this incentive exists is the fact that the entrepreneurial activities of the plaintiffs' attorneys have resulted in huge surges in nonmalignant claims. However, the Bates White assumption asks us to believe that plaintiffs' attorneys were unable to locate the massive additional eligible lung and other cancer claims that its analysis estimates exist. The existence of such untapped claims would be inconsistent with plaintiffs' attorneys' set of incentives to maximize their fees by identifying as many valuable claims as possible.

Some lung cancer and other cancer claims of the type estimated by Bates White have been paid in the tort system, providing evidence that, to the extent such claims exist and have value, they have been filed in the tort system. To the extent claims have *not* been filed historically, evidence exists that the incentive does not exist for them to be filed.

Plaintiffs' attorneys discover, pursue and negotiate asbestos claims through either the tort system or a trust distribution process. Plaintiffs' attorneys' fees provided a powerful incentive for plaintiffs' attorneys to root out valuable claims. Currently, there are two major ways that a claim can be turned into cash flow for the plaintiffs' law firm:

1. Bankruptcy Trust Distribution: Because the contingency fee from a trust distribution depends only on the trust approving the claim and not on the number of hours expended, it is in the plaintiffs' attorneys' interest to minimize its cost per claim, while bringing as many claims as possible.
2. Tort System Settlement or Verdict: In the tort system, the incentives are different. Because extra effort by the plaintiffs' attorney may yield a higher average settlement, the attorney will expend effort until the additional costs of pursuing the claim exceed the additional contingency fees that the firm expects to receive on the claim.

From the perspective of the plaintiffs' attorney, the decision on how much to spend on a claim will depend on the ease with which liability and damages can be proven and the amount of damages that the claim will likely fetch in the tort system or from a trust. For example, mesothelioma claims are particularly attractive to plaintiffs' attorneys for at least two reasons: (1) asbestos is virtually the only known cause, and (2) mesothelioma is a terminal cancer. While the link between the development of lung and other cancers is somewhat less direct, these claims still have value and are paid in the existing system.

To maximize profits, a law firm should increase the number of claimants that it can represent up to the point where adding another claimant costs more than the expected contingency fee from that claimant. Following this logic, it would be irrational for plaintiffs' attorneys to leave potential lung and other cancer untapped while investing heavily in mass screening for nonmalignant claims, because the former would bring them a higher expected contingency fee. However, the Bates White analysis presumes that just this situation, in which plaintiffs' attorneys are leaving potential profits on the table, exists in the current system.

2. Claims of the type forecasted by Bates White have value in the tort system

Lung cancer and other cancer claims of the type estimated to surge under the Bates White analysis have historically been paid in the tort system, proving that they have been pursued by plaintiffs' attorneys. The Manville Trust database, for example, provides evidence that lung cancer claims with and without underlying asbestos-related diseases have been paid. In addition, the Trust has paid lung cancer claims who were smokers and those whose smoking conditions were undetermined. We matched these same claimants to the databases of solvent defendants and found that they were paid by those defendants as well.

Even though such claims may not be caused by exposure to asbestos, a defendant chooses to settle them when the costs of doing so are less than the expected costs of taking the case to trial and risking a large jury verdict. This risk is real: lung cancer and other cancer claims have commanded large jury verdicts in the tort system. Because these claims have value in the tort system, such claims would be filed if they existed. Yet the number of lung cancer and other cancer claims that have been filed in the past is only a fraction of the number predicted in Bates.

3. Many of the workers who develop lung cancer have characteristics that make them unlikely to claim

Bates White added a large number of lung and other cancers resulting from background risk which by definition, would have little evidence of asbestos causation. These individuals had the opportunity to make claims in the tort system. However, cancers among workers with little asbestos exposure and for diseases without established epidemiology evidence of causation tend to claim at lower rates.[13] This means that even if the additional 350,000 lung and other cancers that Bates White added were eligible, their claiming rate would be low.

[13] Filing rates vary for many reasons but most importantly on the degree to which the blame for an illness or injury is internalized. An article by Herbert Kritzer reviews the evidence of attribution of blame and its role in claiming. Kritzer finds that the filing rate more than doubles for claimants who attribute more causation to others compared to claimants who attribute more causation to either themselves or to chance. This situation exists in the current system and would be expected to continue to exist under the FAIR Act. Kritzer, Herbert M., 1991, "Propensity to Sue in England and the United States of America: Blaming and Claiming in Tort Cases," *Journal of Law and Society* 18(4): 400-427.

C. FAIR Act Requirements Are More Stringent Than Those Existing in Tort System for Types of Claims Bates White Assumes Will Surge

If anything, the FAIR Act requirements for payment of lung and other cancer claims are more stringent than those that exist currently. The FAIR Act requires proof of underlying pleural changes or asbestosis for both categories of lung cancer, for example, whereas the Manville 2002 Trust Distribution Plan has a lung cancer category that does not require underlying asbestos-related disease. So do the Celotex and National Gypsum Trusts.

Similarly, exposure requirements for lung cancer claims under the FAIR Act are more stringent than those in existing trust. The Manville, Halliburton and National Gypsum trusts require only five years of exposure. Celotex and Fuller Austin have no minimum exposure period.

For other cancers, the exposure requirements are similar. The Manville, Halliburton Celotex, Fuller Austin and National Gypsum trusts all require five or fewer years of exposure.

In the tort system, defendants, faced with the expense and risk of jury trials, typically cannot impose specific medical and exposure criteria to all. Weaker claims may have a lower value, but most cancer claims nevertheless are settled at some figure

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Review of the FAIR Act Analysis of Bates White, LLC

Presented to

Financial Institutions for Asbestos Reform

October 2005

Presented by

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Executive Summary

Navigant Consulting, Inc. ("NCI"), a leading provider of asbestos-related services which has been engaged by a number of companies to provide estimations of asbestos-related disease, was engaged by Financial Institutions for Asbestos Reform ("FIAR") to review and comment on the analysis of the Fairness in Asbestos Injury Resolution ("FAIR") Act recently issued by Bates White, LLC ("Bates White").[1] The Bates White study concluded that the total cost of paying claimants under the FAIR Act would be between $300 billion and $695 billion, far higher than the estimate prepared by the Congressional Budget Office.[2] Much of the increased cost found by Bates White was derived from their calculation of the compensation that would be paid to claimants with lung cancer with pleural disease and to claimants with other cancers.

NCI reviewed the Bates White report and its October 7, 2005 presentation discussing the report ("October 7 presentation") and compared them to the legislative language and history of the FAIR Act, published statistics on lung cancer incidence and mortality, the Nicholson, Perkel, and Selikoff estimates of occupational exposure and asbestos-related disease incidence ("Nicholson"),[3] and claims data from the Manville Trust database. Also analyzed was an article upon which Bates White relied in its estimate of the eligible population.

In general, NCI found that many aspects of Bates Whites' methodology were unclear, and in particular that the assumptions behind the estimates were often unstated or unsupported, leaving the estimates open to question. In particular, NCI found the following:

- **Overestimate of asbestos exposures.** The Bates White methodology for developing an "eligible population" to supplement the excess cancers projected by established sources such as Nicholson begins with an unsubstantiated assumption: that in 1950, 68 percent of the total employment in the U.S. (including white collar workers) was occupationally exposed to asbestos-containing products and "satisfy the occupational exposure criteria of S. 852."[4] This assumption is not supported by the standard literature on exposure to asbestos containing products and leads to an "eligible population" that is far higher than the number of exposed workers calculated by standard methods. By 1980, Bates White estimates the living eligible population at 43 million, while Nicholson estimates the exposed population at 21 million. In 2000, Bates White's eligible population stands at 27.5 million under the most conservative estimate, while an estimate of Nicholson's exposed population is 10.6 million. Bates White has not provided sufficient

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[1] Bates, White, LLC, *Analysis of S. 852 Fairness in Asbestos Injury Resolution (FAIR) Act* (Sept. 2005).

[2] Congressional Budget Office, *S. 852: Fairness in Asbestos Injury Resolution Act of 2005: As Reported by the Senate Committee on the Judiciary on June 16, 2005* (August 2005).

[3] Nicholson W.J., George Perkel, and Irving J. Selikoff, "Occupational Exposure to Asbestos: Population at Risk and Projected Mortality," 1980-2030. American Journal of Industrial Medicine 3:259-311, 1982.

[4] Bates White report p. 8. Note this condition implies that the level of the Bates White exposed population must exceed its estimate of the "eligible population," since some exposed workers should be assumed not to satisfy the bill's criteria.

information to explain these very large increases in the living population occupationally exposed to asbestos. *See Exhibit 1.*

- **The new estimate of the "eligible population" leads to a revision in the composition of claimants that differs dramatically from historical experience.** In the Manville Trust all claimants presumably face similarly reduced transaction costs, and the medical criteria for lung and other cancers have been at least as easy to meet as those of the FAIR Act, if not more so. Lung cancer and other cancer claimants have constituted 6.7 percent and 1.5 percent, respectively, of all Manville Trust claimants, a combined total of 8.2 percent. Yet Bates White predicts that they will constitute 75 percent of the eligible claimants under the FAIR Act. Examining malignant claims only, the portion represented by compensable other cancer among all malignant claims in the Bates White estimated is nearly four times higher than the Manville Trust experience, with other cancers constituting 12 percent of Manville Trust malignant claims vs. 45 percent of Bates White malignant claims. *See Exhibit 2.*

- **Literature does not support a dramatic expansion of occupational exposure.** The Cocco and Dosemeci article cited by Bates White as the basis for their exposure estimates does not contain sufficient empirical basis for expanding exposure beyond the occupational exposure estimates by Nicholson, a generally accepted standard in the literature. In particular, the article did not find higher cancer risks associated with potential occupational exposure to asbestos among women: "Among men, risk of peritoneal cancer increased significantly by probability and intensity of exposure to asbestos. No such pattern was observed among women."[5] Moreover, the Bates White report is unclear about the relationship, if any, between the "exposed population" and the "eligible population" used to estimated malignant and non-malignant claims. There may be substantial overlap between the updated Nicholson exposed workforce and the eligible workforce based on Cocco and Dosemeci. Because the updated Nicholson exposed population is used to estimate excess cancers, those same living workers should not be part of the new "eligible population" to calculate "supplemental" cancers. The Bates White report does not indicate how this issue was treated.[6]

- **The Bates White assumptions with regard to lung and other cancers are inconsistent with the bill language.** The Bates White conclusions about the costs of the trust are largely driven by their assumptions about lung and other cancer claims.
    - First, Bates White assumes that individuals with lung or other cancer and pleural disease face high transaction costs in the current system that deter these individuals from filing claims. In their analysis, Bates White assumes that the transaction costs for these individuals are greatly reduced and that given the substantial compensation offered by the proposed trust, potential claimants therefore will file at a much higher frequency than experienced under the current system. This view is inconsistent with the language of the proposed bill, which requires claimants in these categories to meet a number of evidentiary and procedural requirements.

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[5] Cocco, Pierluigi and Mustafa Dosemeci, "Peritoneal Cancer and Occupational Exposure to Asbestos: Results from the Application of a Job-Exposure Matrix," *American Journal of Industrial Medicine* 35:9-14 (1999).

[6] Note that the October 7 presentation indicates that the updated version of Nicholson was not used to estimate excess cancers. It remains unclear whether two populations were employed by Bates White in the estimates.

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- Second, the Bates White estimate does not appear to have taken into account variations in exposure levels across time, and although variation across occupations was considered in estimating the prevalence of pleural changes, it is not clear whether it was incorporated into the Bates White model. Failure to incorporate either or both of these variations could result in an overestimate of the incidence of diseases eligible for FAIR Act compensation. Exposure levels have always differed across occupations and industries—an insulator, for example, would receive a far higher dose of fibers in a given time than stationary engineer—and the lower exposure levels following the advent of federal regulation mean that most claimants whose exposure began in the 1970s are unlikely ever to achieve sufficient weighted years of occupational exposure to qualify for compensation under the bill.

- **The Bates White estimate of eligible lung and other cancers far exceeds numbers obtained through established methodology.** For example, the Nicholson estimate of other cancer incidence for the period 2001-2039, which covers some cancers not included in the FAIR Act, is 20,469. Bates Whites' conservative estimate of FAIR Act-eligible cancers is 212,000. The Bates White report indicates that it "supplement[s] the number of excess cancers with the number of background cancers with coincidental pleural changes."[7] The report, however, provides little explanation for why the "supplement" in other cancers exceeds the excess level by nearly a factor of ten. *See Exhibit 5.*

- **Mesothelioma estimates are inconsistent with exposure estimates:** In its analysis of excess cancers, the Bates White report estimates that the population of living persons in 1980 with exposure to asbestos was 43 million, more than twice the living population with qualifying asbestos exposures estimated by Nicholson. *See Exhibit 1.* The Bates White model for the supplemental cancers relies on a greatly expanded exposed population, yet there is no apparent connection to their mesothelioma estimates. Nicholson estimates future incidence of mesothelioma after 2001 at 66,518, and the Bates White report estimates pending and future mesothelioma claims to the proposed trust to be 49,000. If, in fact, the "eligible population" was over twice the level of exposures estimated by Nicholson, then estimated mesothelioma incidence should not be less than the Nicholson estimate. The Nicholson estimates, however, have generally been at a level comparable to those observed in the National Cancer Institute's Surveillance Epidemiology and End Results (SEER) data to date. The Bates White report does not address this inconsistency in the estimation logic.

- **The findings on lung cancer in the eligible population are improbable.** Bates Whites' seemingly high projections of supplemental lung and other cancer stem from their assumptions about the "eligible population." For example, Bates White's projections of lung cancers in the eligible population are inconsistent with published lung cancer statistics. Importantly, existing data show that asbestos-related lung cancer is overwhelmingly a disease affecting males. *See Exhibit 3.*

[7] Bates White report p. 28.

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- **The Bates White estimates imply that about 73 to 92 percent of all men with lung cancer were occupationally exposed to asbestos.** The Bates White report does not provide a basis to support this high prevalence of asbestos exposure in the male lung cancer population. *See Exhibit 4.*

- **No clear basis is provided for Bates Whites' "mapping" of RAND lung and other cancer claims into FAIR Act categories.** The method that Bates White used to map the RAND claims estimates into FAIR Act claims levels VII and VIII (lung cancer with pleural disease and lung cancer with asbestosis), with smoker/former smoker/nonsmoker breakouts, was not apparent from the description in their report, and NCI was not able to replicate it using Manville Trust claims data, the stated source for the mapping.

- **Sensitivity results show that "reversing" the assumptions leads to large decreases in the base case.** Using some of the Bates White results provides an indication of how much the estimate might change by using alternative assumptions in the base case.[8]

    - Bates White finds that expanding the eligible population alive in 2000 from 27 million to 34 million increases the estimate by $90 billion.[9] On average, each million people added to the eligible population apparently leads to about $12.9 billion in additional cost in the Bates White model. Using this figure as an estimate of the average impact from changes to the eligible population and reducing the eligible population to the estimated Nicholson value of 10.5 million results in a decrease to the base case of about $210 billion.
    - Bates White indicates that a change in the prevalence in pleural changes from 10 to 25 percent increases the cost of the fund by $235 billion or an average of $15.7 billion for each percent change. Using this average impact and reducing the average prevalence of pleural changes in the eligible population to 4 percent, which Bates White indicates may reflect the prevalence in a general but still exposed population, results in a decrease to the base case of about $94 billion.
    - Bates White indicates that an 80 percent propensity to file (number of claims filed/incidence of disease) reduces the base case by $54 billion;[10] therefore, a 60 percent propensity to file, which better reflects the average rates using the Manville Trust data, results in a reduction of $108 billion.

These findings lead NCI to the conclusion that Bates White has substantially overestimated both the number of potentially eligible lung cancer and other cancer claimants to the proposed trust and the number of those claimants who will receive compensation. While NCI did not undertake its own estimate of the cost of the proposed trust, based on these factors we believe it will be considerably less than the amounts estimated by Bates White.

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[8] Throughout these examples, it is assumed that the sensitivity has a linear effect on the results. The results described here are meant to be illustrative of the base case's sensitivity to key assumptions.

[9] Bates White report p. 14. Note that the tables provided in the report's appendix for the increased eligible population sensitivity indicate that the increase is $36 billion; however, the higher figure is repeated several times in the report and also in the October 7 presentation.

[10] Bates White report p. 45.

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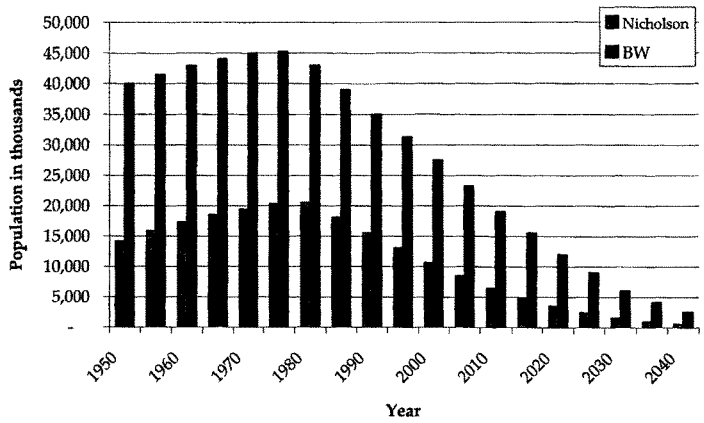
Exhibit 1: Exposed and Eligible Population Estimates



Sources: Bates White Report, Nicholson, and NCI.

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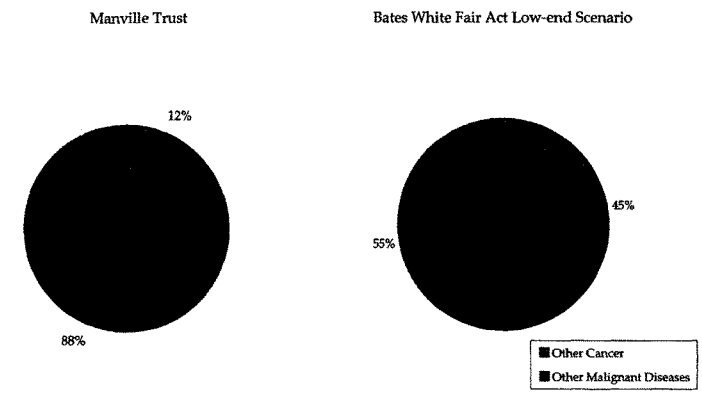
Exhibit 2: Other Cancer as Percentage of All Malignant Claims



Sources: Settled claims filed through 2002 from Manville Trust June 2005 data extract and Bates White Report.

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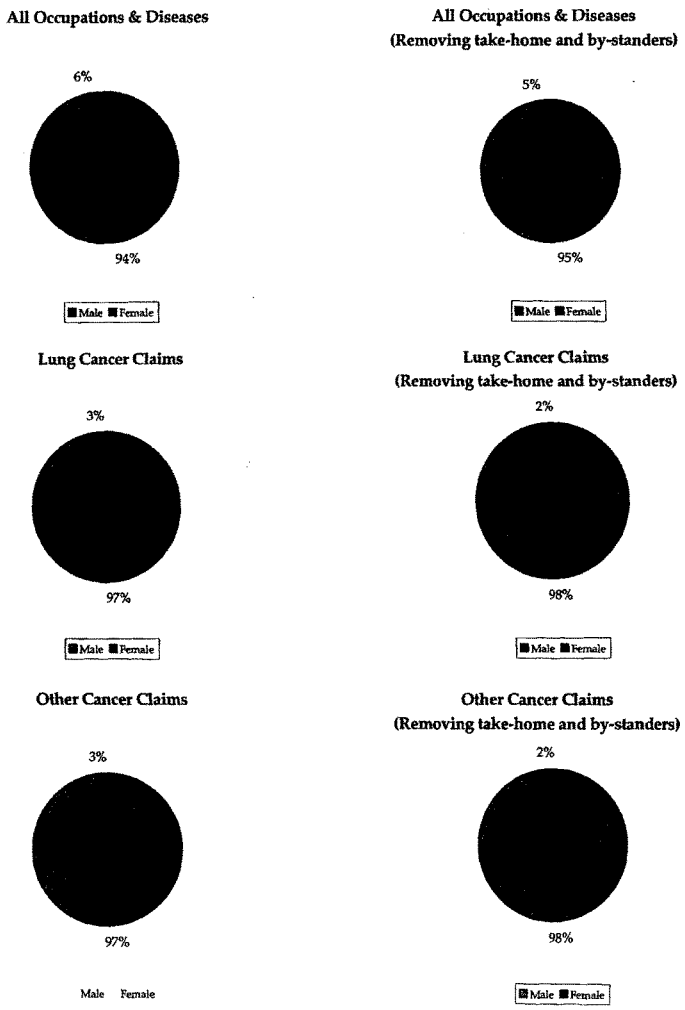
Exhibit 3: Gender Frequency in the Manville Trust



Source: Manville Trust June 2005 data extract.

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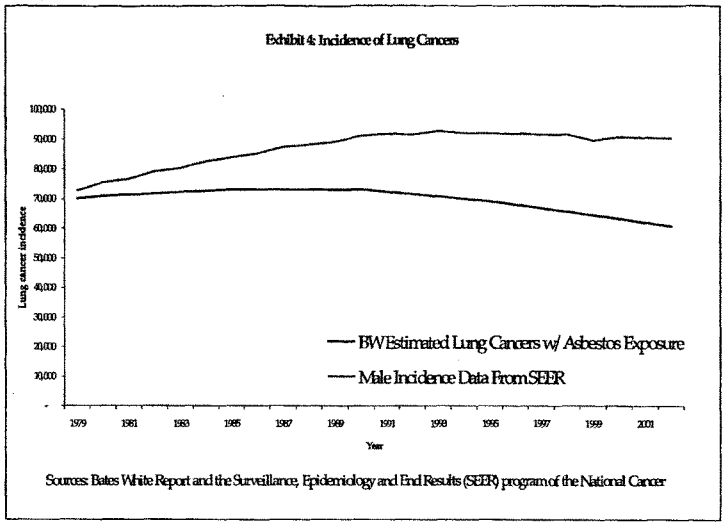

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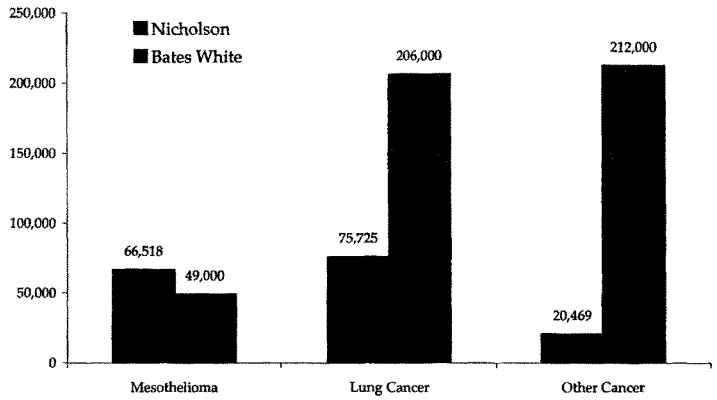
Exhibit 5: Estimated Incidence for Malignant Diseases



Note: Nicholson estimate is from 2001 through 2039 and Bates White estimate is from 2001 through 2055 for the Low-end Scenario.

Sources: Bates White Report and Nicholson

Summary Statement of Mark A. Peterson Before the Senate Judiciary Committee Hearing on S.852 "Fairness in Asbestos Injury Resolution Act of 2005"

November 17, 2005

Mr. Chairman and members of the Judiciary Committee, I am submitting this statement to provide data, quantitative analyses and comments that I hope will aid the committee in its consideration of the "Fairness in Asbestos Injury Resolution Act of 2005," S.852.

Both the Congressional Budget Office and Bates-White have issued recent warnings about the prospects of the S.852 fund. I will comment primarily about the CBO report and warnings and more briefly about those of Bates-White. I have prepared and attached to this statement a report discussing the forecasts and risks reported in these two reports which will be the basis of my testimony today. In this letter I briefly summarize key matters discussed in the attached report. I have also attached a one page summary of my relevant background and experience on the subjects of this hearing.

CBO's report warns that the S.852 "resources may be insufficient to pay all (asbestos) claims," that "the value of valid claims ... could be between $120 billion and $150 billion" and "interest cost ... would add significantly." Using CBO's estimates of the number, timing and costs of claims, I calculated that interest costs would reach $35 billion. When interest is added to liability cost, total costs would reach $155 to $185 billion, and the fund would fail with debt of $35 billion. CBO describes the conditions that will make repayment of this debt risky: the joint burdens of costs of litigation and S.852 obligations will cause insolvencies among asbestos defendants and insurers who would be required to repay this debt. These risks are exacerbated because, in CBO's view, receipt of the $140 billion in S.852 revenue is "highly uncertain."

The risks of S.852 are far worse than CBO warns. CBO greatly underestimated costs of S.852 by using a series of impossible and implausible assumptions:

- In counting the number of pending claims that the S.852 fund would face when it opens, CBO stopped counting almost all newly arriving claims as of 2002. CBO's forecasts omitted hundreds of thousands claims that have actually arisen during the last three years. Among these, CBO omitted over 90 percent of the mesothelioma claims filed since 2002, estimating only 900 new mesothelioma claims during 2003 to 2005 when the Manville Trust actually received 9,400 new mesothelioma claims in those years. By excluding nearly a quarter million actual claims, CBO not only underestimated the fund's total liability, but it underestimated the amount that the fund must immediately borrow to pay pending claims and the fund's interest on that debt.
- CBO's count of pending claims omitted another 160,000 claims by assuming, impossibly, that the fund would start in January 2006. Although CBO's report recognizes that at least a year would pass between passage and the fund's start, its forecast does not use the 2008 start date that this recognition implies. CBO should have counted, but did not, the 160,000 claims that it forecasts for 2006 and 2007 as pending claims. Again, CBO's omission underestimates the initial borrowing and interest that the fund will assume to pay pending claims.
- CBO makes implausibly low forecasts of the number of mesothelioma claims, assuming only 45,000 present and future mesothelioma claims, a forecast that is 35 percent less than the 69,000 forecast of S.852 mesothelioma claims derived from recent Tillinghast Towers Perrin forecasts for the Manville Trust.
- CBO assumed that only 1 in 7 nonmalignant claimants would qualify for payment, an unlikely assumption that CBO attributes to Tillinghast in its work for Manville, but that was not accepted in the Tillinghast-Manville forecasts.

When CBO's forecasts are changed to use empirically based assumptions that are actually accepted by its cited sources, the risks for S.852 become overwhelming: the S.852 fund fails within 2 to 4 years with an indebtedness ranging from $48 billion and $64 billion. At most only $82 billion of the $140 billion promised by S.852 would be used to pay claims.

As alternatives to CBO's forecasts, Tillinghast provides a range of 15 differing forecast scenarios that were prepared in a disinterested fashion to give the best information to the Manville Trust. When Tillinghast's 15 forecasts of future Manville Trust claims are used instead of CBO's to forecast future S.852 claims, the risks of S.852 are even greater. Using the Tillinghast forecasts, the fund fails in the first or second year for 13 of the 15 forecast scenarios. The fund's debt at sunset is greater, with between $60 billion and $67 billion owed to the government's general fund, which could only be repaid by 30 more years of payments by defendants and insurers. And claimants fare worse, receiving only $73 billion to $77 billion.

All of these forecasts agree: the S.852 fund will fail quickly with devastating effects. After the fund's early failure asbestos defendants and insurers will face a doubling of the obligations that CBO noted: first, the costs of renewed asbestos liability and, second, the 30 years of continuing payments required by S.852, without any further benefit to defendants and insurers from S.852. There is great risk that many will become insolvent.

In turn, asbestos victims whose diseases arise as early as the very year in which the fund starts will face great risk that they will receive no compensation for their injuries. S.852 will be insolvent; many defendants will be insolvent; and asbestos trusts will have been shattered and drained by S.852.

Finally, even using the CBO future claims forecast, adding the omitted pending claims, the government's general fund will be owed between $48 billion and $64 billion, faced with great uncertainty and risk in collecting this debt from defendants and insureds who face doubled asbestos obligations. The risk to the general fund is even greater, from $60 billion and $67 billion, using Tillinghast's alternative forecasts.

The September 2005 "Analysis of S.852 Fairness in Asbestos Injury Resolution (Fair) Act" prepared by Bates-White, LLC, presents additional risks. Whether or not one accepts its quantitative estimates of liabilities, the report correctly describes likelihoods that claims filings will be greater under S.852 than they have been in the past under tort litigation.

Bates-White not only raises the specter of larger populations of potential claimants than previous analysts have considered, but also notes that a greater fraction of these potential claimants will likely file claims than has occurred before in litigation.

In pointing out that the population of persons who can qualify for S.852 compensation is greater than analysts have previously considered and that the percent of these potential claimants will likely increase from previous rates in litigation, Bates-White imply even further risks that liabilities under S.852 will exceed the promised $140 billion of revenue. In my forecasts discussed above I have accounted for neither of these risks that Bates-White presents.

Statement of Mark A. Peterson Before the

Senate Judiciary Committee Hearing on S.852

"Fairness in Asbestos Injury Resolution Act of 2005"

November 17, 2005

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1. Introduction

Mr. Chairman and Members of the Committee, my name is Mark Peterson, and I am submitting this statement to provide data, quantitative analyses and comments that I hope will aid the committee in its consideration of the "Fairness in Asbestos Injury Resolution Act of 2005."

I comment here on the two documents: "Congressional Budget Office Cost Estimate for S.852," dated August 25, 2005, and "Analysis of S.852 Fairness in Asbestos Injury Resolution (FAIR) Act," the estimate of S.852 costs prepared by Bates-White, LLC, dated September 2005. These comments supplement my Judiciary Committee testimony and reports of April 2005 and June 2003 regarding S.852 and its predecessors.

2. CBO's Warnings about the Risks of S.852

CBO warns this committee and the Congress that S.852 "resources may be insufficient to pay all (asbestos) claims." CBO forecasts that "the value of valid claims likely to be submitted to the fund ... could be between $120 billion and $150 billion" and that additional "interest cost ... would add significantly" (CBO, August 25, 2005 p. 2).

CBO does not report the total of these "significant" interest costs, so I examined their warnings through a simulation of the S.852 fund that applied forecasts of the number and costs of claims from CBO's August 2005 report to CBO's schedule of the timing and volume of claims in its previous reports. CBO's current forecasts produce the following conclusions:

- The S.852 fund will borrow heavily.
- Claims and interest costs will exceed the promised $140 billion of S.852 funding.
- The fund will "sunset" because of its debt and inability to accept new claims.
- At sunset the fund will owe $35 billion dollars.
- Only $103 billion of the promised $140 billion would actually be paid to asbestos victims.

3. CBO Warns that Its Own Forecasts Are Optimistic

CBO notes that its forecasts of claims and liabilities are highly uncertain and likely underestimate the real risks of the fund's failure. CBO acknowledges that a "precise forecast of the fund's performance over the next five decades is not possible because there is little basis for predicting the volume of claims, the number that would be approved, or the pace of such approvals" (Ibid). CBO warns that "there might be a significant risk of underestimating the number of future claims" noting that "the projections that have been made in recent decades of the number of asbestos claims likely to be filed were in hindsight much too low" (Ibid, pp. 15-17).

Then CBO warns that the availability of the $140 billion in revenues is also "highly uncertain":

> "The revenue stream that would be generated by the legislation is highly uncertain" and "difficult to project ... with much reliability" (Ibid, p. 17).

CBO anticipates there will be significant insolvencies among defendant companies that add to "uncertainty in the value of the fund's future revenue stream," putting at risk the fund's realization of the $140 billion (Ibid. p. 18):

> "Thirty years is a long time-span for a business. Even under ordinary conditions, economic circumstances lead many firms to liquidate over time. Normal attrition will be exacerbated by the costs of dealing with asbestos liability--either under the current system of litigation or under the legislation itself" (Ibid).

The fund's sunset will further exacerbate liquidations among the defendants and insurers who would be required to repay the $35 billion of debt left by the fund at sunset. After sunset, defendants' and insurers' "costs of dealing with asbestos liability" would not be simply their costs "either under the current system of litigation or under the legislation" but rather the costs of both together. Companies would be back facing the costs of litigation while also continuing to face their S.852 payment obligations, despite having lost the S.852 protections.

These doubled obligations would be catastrophic for many businesses and also for asbestos victims, who could pursue litigation only to obtain recoveries that are uncollectable from insolvent defendants and insurers. This financial chaos after sunset will also burden taxpayers who will be called upon to pay some or all of the fund's debt. CBO provides this damning warning through faint reassurance:

> "So long as the fund's Administrator does not borrow from the U.S. Treasury beyond the means of the fund to repay such borrowing, the government's general fund would not be used to pay claims" (Ibid, p. 18).

But the fund's sunset with $35 billion of debt that can only be repaid by defendants and insurers, who would then bear double obligations of litigation and S.852 payments, presents precisely the borrowing "beyond the means of the fund to repay" that CBO warns must be avoided if the government's general fund is be spared from paying the S.852 obligations.

4. But CBO's Warnings Are Not Strong Enough: CBO Greatly Underestimates the Costs and Risks of S.852

As worrisome as CBO's warnings are, they greatly underestimate the real risks of S.852. CBO uses a series of impossible or implausible assumptions that sharply reduce its estimates of the costs and risks of S.852.

- In counting the number of pending claims that the S.852 fund would face when it opens, CBO stopped counting newly arriving claims as of 2002--ignoring hundreds of thousands claims that have arisen during the last three years.
- CBO then assumed an impossibly early January 1, 2006 fund start date that cut out another 160,000 claims that will arise before the S.852 fund could possibly start paying claims--sometime in 2008.
- CBO predicted only 45,000 present and future mesothelioma claims, a forecast that is 35 percent less than the 69,000 forecast of mesothelioma claims under S.852 claims based on recent Tillinghast Towers Perrin forecasts for the Manville Trust.
- Then CBO assumed that only 1 in 7 nonmalignant claimants would qualify for payment, an assumption that CBO has made repeatedly without any evidence or support and always contrary to the sources that CBO cites for this assumption.

When CBO's forecasts are changed to use empirically based assumptions that are actually accepted by its cited sources, the risks of S.852 become overwhelming: the S.852 fund fails within 2 to 4 years with an indebtedness ranging from $48 billion and $64 billion. At most only

$82 billion of the $140 billion promised by S.852 would be used to pay claims. The risks are even greater when Tillinghast's 15 forecasts of future Manville Trust claims are used to forecast future S.852 claims instead of CBO's forecasts.

4.1. The Number of Pending Claims Is Critical to the Success or Failure of S.852

As CBO describes, S.852 claims and liability are front-loaded, mostly in early years; but most of the fund's revenue will be received only later, with "roughly constant" annual revenue payments over the 30 years of contributions (Ibid, p. 2). The fund would have to borrow immediately in order to pay the initial flood of claims within the time deadlines imposed under S.852. Facing a great number of initial pending claims, the fund would be forced into heavy, immediate borrowing that would cause an early sunset. The fund would incur large interest payments that would further erode fund assets. Within 2 to 4 years the fund would have to use all future revenue to repay this debt and its continuing interest charges. Within 2 to 4 years the fund would have to mortgage its future revenue in order to pay the hundreds of thousands of claims that it receives at the start, turning away all new claims and using all future revenues to repay this mortgage.

4.1.1. CBO Ignores 250,000 Pending Claims Filings Since 2002

Like all analysts, CBO has accepted an estimate of 300,000 asbestos claims pending on December 31, 2002.[1] But CBO's forecasts in its August 2005 report quit counting almost all claims filed after December 31, 2002, ignoring hundreds of thousands of actual claims that have arisen since that date.

CBO ignores 8,500 recently filed mesothelioma claims. Since the beginning of 2003 the Manville Trust has received 9,400 new mesothelioma claims, but CBO's forecast counts only 900 of these newly filed mesothelioma claims. All 9,400 of these actual mesothelioma claim filings were not, but must be, included in CBO's count of claims that will be pending when the S.852 fund opens. The 9,400 mesothelioma claims filed against Manville will be pending S.852 claims even if they have received payment from the Manville Trust. While Manville values mesothelioma claims at over $400,000 on average, it pays those claims only $20,000, leaving an average unpaid value of $380,000 per claim. Moreover, few claimants will have received appreciable collateral source payments. Few, if any, of these mesothelioma claimants will have been paid by asbestos defendants who are now in bankruptcy, including eight thermal-insulation products manufacturers who accounted for the majority of compensation paid in the past to asbestos plaintiffs but who all entered bankruptcy in 2000 or 2001. Few S.852 claimants will have received significant payments by other defendants still in tort litigation, because Congressional consideration of S.852 has almost halted the willingness of defendants to settle and has dried up compensation payments.

CBO's $120 to $150 billion forecast for claim liabilities must be increased by $9.35 billion simply to account for the additional 8,500 actual mesothelioma claims filed with the Manville

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1. In their analyses during early 2003, Goldman Sachs, Navigant, the AFL-CIO and Legal Analysis systems all assume 300,000 as the number of claims pending at the end of 2002. CBO used this same assuption in its October 2003 report on S.1125, a prior version of S.852. The 300,000 number takes collateral source payments into account--it actually represents more than 300,000 claimants, some of whom had already received some compensation from asbestos defendants or trusts. See, CBO "Additional Information Regarding CBO's Cost Estimate for S.1125, the Fairness in Asbestos Injury Resolution Act of 2003", October 2003.

Trust that CBO ignores. Adding this $9.35 billion of initial liability will further increase the fund's borrowing and interest costs, which should have led to more dire warnings by CBO of the S.852 fund's precarious prospects.

CBO's forecast ignores a far larger number of recent claims. Across all diseases, CBO ignores a quarter million new asbestos claims that have been filed since 2003. CBO itself concludes that a quarter million or more asbestos claims have been filed since 2002, although it did not use the conclusion in its estimate of pending S.852 claims. CBO's prior analyses noted that in recent years about 90,000 new claims have been arising annually, 270,000 claims over three years. CBO's current report forecasts that 80,000 new claims will be filed annually between 2006 and 2008, 240,000 claims over three years (CBO August 2005 Report, pp. 5-6, and Table 2, p. 8). CBO's observations are consistent with the actual claims experiences among asbestos defendants. Union Carbide received an average of 90,000 new claims in 2003 and 2004. National Gypsum has received an average of 120,000 new claims in 2004 and 2005. Manville, which has historically received less than the total number of claims filed against all defendants, received an average of 60,000 new claims in 2003 and 2004. Yet rather than adding the quarter million new claims over the 2003-2005 period that CBO recognized, its forecasts count only 22,000 additional new claims as having been filed since 2003.

CBO does not explain why it ignored over 90 percent of mesothelioma claims and over 90 percent of all claims that were filed between 2003 and 2005, nor does it acknowledge these huge omissions. CBO does state that it "did not take into account the number of claims that were technically pending with at least one company that have been inactive for several years" which, if filed under S.852, would make "the number of claimants seeking compensation from the fund in the first four years ... significantly higher" (CBO August 2005 report, p. 8). But the 2003 to 2005 filings that have been omitted by CBO are new filings, not claims "that have been inactive for several years." In any event most claims that are "pending with at least one company ... for several years" are not inactive, but rather are active claims that have been stayed by bankruptcy proceedings.[2] Clearly it was improper for CBO to exclude a quarter million claims that have been made since 2003. When these improperly omitted claims are restored, the count of pending claims that have been filed through 2005 reaches between 540,000 and 570,000.

4.1.2. CBO Fails to Include Another 160,000 Filings from 2006 and 2007 that Will Be Pending at Start-Up

CBO further and improperly omits another 160,000 pending claims by stopping its count at the end of 2005. CBO's forecast assumed that the count of pending claims would stop and the S.852 fund would begin receiving, processing and paying claims in January 2006 even though S.852 has not become law and likely will not have been brought up for vote in either the Senate or the House by January 2006. Indeed, CBO recognizes that the S.852 fund will be unlikely to start

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2. More than a dozen current bankruptcies among asbestos defendants, including bankruptcies of eight major thermo-insulation defendants filed in 2000 and 2001, have stayed law suits that were filed in earlier years. Unpaid claims against these defendants remain as active bankruptcy claims that are included among the CBO's count of the 300,000 claims that have been pending since before 2003. Plaintiffs who have filed since 2001 cannot sue these defendants in bankruptcy and few have received compensation from these defendants. Furthermore, CBO does not and could not claim that these omissions represent some kind of adjustment for collateral source payments to asbestos claimants. CBO's estimate of 300,000 pending pre-2003 claims have already been adjusted for collateral source (see footnote 1, above). Recently filed claims have received little. Since 2003, compensation payments to asbestos claimants have plummeted because of the pendency of S.852 and its predecessors. Defendants and insurers have avoided paying claims while the legislation is pending.

before 2008, assuming enactment some time during 2007: "CBO expects that the fund would not be fully operational until at least a year following enactment of legislation" (Ibid, p. 6). CBO forecasts that 160,000 new claims will be filed in the meantime: that 80,000 new claims will be filed during each of 2006 and 2007 before the S.852 fund could begin to receive claims (Ibid, pp. 5-6, and Table 2, p. 8).

Adding this 160,000 claims to the pending claim count of 540,000 to 570,000 through 2005, the S.852 fund will face between 700,000 and 730,000 pending claims when it begins operations. Based on the clear facts of recent claim filings and CBO's own assumptions, the S.852 fund will face more than twice as many pending claims as CBO includes in its forecast for the S.852 fund. Rather than the $25 billion that CBO forecasts, the fund's liability cost for pending claims would be between $46 billion and $49 billion. By themselves, corrections to the count of pending claims would add $13 to $16 billion to the costs of S.852, pushing the total well beyond the $140 billion proposed fund. But these necessary corrections have other devastating effects, greatly adding to the fund's initial indebtedness and to its interest costs, thereby accelerating insolvency and sunset for the fund.[3]

4.2. CBO Greatly Underestimates the Number of Cancer Claims

The CBO Report also greatly understates the risk that far more cancer claimants would receive compensation from the National Fund than has been assumed by the CBO forecasts. CBO forecasts that 99,000 compensable cancer claims will be filed with the S.852 fund, 21,000 pending claims and 78,000 future claims (Ibid, Table 2, p. 8). According to CBO, 6.3 percent of all S.852 claims will be compensable cancer claims and 2.9 percent will be compensable mesothelioma claims.

In contrast, Tillinghast forecasts a higher percentage and greater number of compensable cancers in its recent research for the Manville Trust. The Manville Trust hired Tillinghast to do future claims projections so that the Manville Trustees could evaluate the payment percentage to claimants. Tillinghast's work produced 14 alternative Manville claim filing scenarios that differed with regard to the total number of future claims and their distributions across disease categories. Averaging across all 14 of these scenarios (weighted by Tillinghast's and Manville's estimates of probabilities for each scenario), 9.7 percent of all claims are cancers and 5.3 percent are mesothelioma claims, which would be compensable under S.852 (excluding lung cancer claims that do not have sufficient exposure or do not have asbestosis or pleural disease). Both for mesotheliomas and all cancers, Tillinghast forecasts more than half again as many claims as CBO. With a value for mesothelioma claims of $1.1 million under S.852, this difference in the two forecasts of mesothelioma--2.9 percent as a percent of all claims according to CBO versus 5.3 percent according to Tillinghast--results in sharply different forecast liabilities for the S.852 fund.

The Tillinghast forecast alternatives result in 66,000 to 87,000 mesothelioma claims as compared to CBO's forecast of 45,000. Only 5,000 of these differences in forecast mesothelioma claims result from increasing the count of pending claims for 2003-2005 filings that CBO had omitted. Most of the differences result from Tillinghast's greater forecasts of future mesothelioma claims.

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3. The $13 to $16 billion increases in total liability come from adding the 212,000 to 242,000 filings during 2003 to 2005 that were omitted by CBO. The 160,000 filings during 2006 and 2007 do not add to total liability because these have been counted as future claims by CBO. However, the liabilities for both groups, all of the added 372,000 to 402,000 pending claims filed in years 2003 through 2007, increase the fund's borrowing and interest burdens in order to pay pending claims.

The difference between the CBO forecast of 45,000 mesothelioma claims and the Manville "most likely" case of 69,000 mesothelioma claims cannot be reconciled by the differences between exposure and medical qualification criteria under the Manville 2002 TDP and those of S.852. The mesothelioma criteria are the same in both regimes. Rather the differences result simply because CBO has forecast far fewer mesothelioma claims than Tillinghast.

4.3. There is No Support for CBO's Assumption that Only 15 Percent of Nonmalignant Claimants Would Qualify for Payment

Although CBO recognizes that there is great uncertainty about how many S.852 claims will qualify for payment, particularly among nonmalignant claimants, CBO uses an unlikely assumption that only 15 percent of nonmalignant claimants would qualify for payment. The sources that CBO cites for its assumption, Tillinghast's and Manville Trust's forecasts of Manville claims, do not provide support. The Manville Trust explicitly rejected CBO's assumption that only 15 percent of nonmalignant claims would qualify for payment. Manville Trust's General Counsel, David Austern, states: "Our best estimate...is that over two-thirds to three-quarters of the nonmalignant claims filed pursuant to S.1125 [which are not changed in S.852] will qualify for compensation at level II or higher."[4]

Instead of supporting CBO's 15 percent assumption, the Tillinghast and Manville Trust forecasts incorporate the uncertainties about qualification rates and regard CBO's assumption is unlikely. The Tillinghast and Manville forecasts accept no single assumption about the rate at which nonmalignant claims would qualify for payment. Rather, to reflect uncertainty, the research simulates 14 different sets of assumptions about future Manville claims that vary the percent of qualifying nonmalignant claims. These simulations assume that 23 percent or more of nonmalignant claims would most likely qualify for payment under the Manville payment procedures. In their discussion of the research, Tillinghast and Manville conclude that among Manville asbestosis claimants (who are by far the majority of nonmalignant claimants) it is most likely that 53 percent would qualify for payment with a one in six likelihood that 77 percent would qualify for payment.

4.4. Using Manville Trust Futures Forecasts, the S.852 Fund Fails Almost Immediately

Tillinghast's forecasts for the Manville Trust provide helpful and disinterested alternatives that can be used to evaluate CBO's forecast of the costs and risks of the S.852 fund. CBO itself looked to the Tillinghast-Manville work, although CBO did not incorporate either the actual assumptions or forecast alternatives that Tillinghast and Manville used to investigate uncertainties about likely future claims (see Sections 4.2 and 4.3, above).

I ran a series of forecast simulations to examine the prospects of the S.852 fund when future claims counts and disease distributions are forecast using the 15 Tillinghast-Manville scenarios rather than CBO's forecasts (the fifteenth scenario is the Tillinghast-Manville weighted average of the 14 specific forecasts). I used each of these alternative forecasts to estimate, in turn, the number of claims and diseases for future claims beginning with year 2006. For each, I used the Tillinghast-Manville distributions of diseases to distribute pending claims that have already been filed during 2003 through 2005 and that must be included as pending S.852 claims and the

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4. October 9, 2003 letter from David T. Austern, general counsel of the Manville Trust to Rebecca Seidel and J. Edward Pagano, staff of the Senate Committee on the Judiciary.

300,000 pending claims filed before 2003. Finally, I assumed that the S.852 fund would begin to process and pay claims in January 2008.

S.852 forecasts using the Tillinghast-Manville scenarios produced lower estimates of the number of compensated claims than CBO forecast even after adding to pending claims the 2003-2005 filings that CBO had omitted from its forecast. In total CBO forecast 1.6 million pending and future claims (Ibid, Table 2, p. 8), while 9 of the 14 specific Tillinghast scenarios forecast fewer claims (five forecasting only 1.1 total claims) and 5 of the 14 Tillinghast scenarios forecast more (two forecasting 1.9 million total claims). The weighted average among the Tillinghast scenarios forecast 1.3 million pending and future claims, with inclusion of the 2003-2005 filings that CBO had omitted.

Distributions of diseases in the Tillinghast forecasts differed systematically from CBO's forecast, as I have discussed above. Each Tillinghast scenario forecasts more compensable cancer claims than CBO, with substantially more mesothelioma claims than CBO (see Section 4.2, above). Tillinghast-Manville forecasts of the percent of nonmalignant claims that would be compensated ranged both below and above CBO's assumption that 15 percent of such claims would be compensated, with the greatest probability (.65) that the compensation rate would be at least 1.5 times the rate that CBO assumed (see Section 4.3, above).

Despite differences among the Tillinghast scenarios about the total number of claims and the percent of qualifying nonmalignant claims, this wide range of forecasts all tell the same story. Under every Tillinghast scenario the S.852 fund would fail immediately. The fund would become insolvent and forced into sunset within the first to third year (the first year for 6 of the 15 scenarios and the second year for 7 scenarios). At sunset the fund would face a debt between $60 and $67 billion. At best the fund would pay only $77 billion of the promised $140 billion to claimants.

These alternative future claim scenarios show uniformly that there is little uncertainty about the prospects for the S.852 fund. The risk of failure is complete. If CBO had used the actual Tillinghast-Manville forecasts rather an its own forecast of future claims, it would have had to conclude that S.852 has little or no chance of success.

5. As Corrected, CBO's Forecast Shows Early Failure and Devastating Consequences

Because CBO did not embrace the alternative Tillinghast-Manville forecasts, I examined S.852's prospects using CBO's forecast of future claims. I made modifications whose necessity was describe above, running the CBO forecast simulation with several variations:

- January 2008 startup for claims and revenues.
- Pending claims counts of (a) 700,000 or (b) 730,000.
- Nonmalignant qualification rates of (i) 23%, (ii) 33% or (iii) 53%.

All of the simulations using each of these variations produced results that fall within the following ranges:

- The fund sunsets within 1 to 4 years after startup.
- Debt at sunset ranges from $48 to $64 billion.

- Interest payments total from $55 to $62 billion.
- Payments to claimants range from $76 to $82 billion.

Results are essentially the same as those obtained using the 15 alternative Tillinghast-Manville forecasts. The simulations using the amended CBO forecast show that while there are uncertainties about some assumptions affecting the S.852 fund, there is again little uncertainty about the risks of S.852. The fund fails quickly under any set of assumptions that are based on actual counts of pending claims, a realistic startup date, and generally accepted assumptions about qualification rates for nonmalignant claims.

With this early failure of the S.852 fund, asbestos defendants and insurers will face the doubled obligation of renewed asbestos liability and 30 years of continuing payments for their S.852 obligations, without any continuing benefit from S.852. There is great risk that many will become insolvent. In turn, asbestos victims whose diseases arise as early as the very year in which the fund starts will face great risk that they will receive no compensation for their injuries. S.852 will be insolvent; many defendants will be insolvent; and asbestos trusts will have been shattered and drained by S.852. Finally, even using the CBO future claims forecast, adding the omitted pending claims, the government's general fund will be owed between $48 and $64 billion, and it will face great uncertainty and risk in collecting this debt from defendants and insureds who face doubled asbestos obligations.

These risks are real. The likelihood that the risks could be avoided seems remote at best. Even CBO's August 2005 analysis, with its impossibly optimistic assumptions, forecasts liabilities that exceed fund revenues and a heavy debt burden when the fund sunsets (see Section 2, above). Furthermore, all of these forecasts include the optimistic assumption that the proposed S.852 revenue of $140 billion would be achieved. CBO warns that this assumption too is uncertain and risky.

6. The Bates-White Report Documents Additional Risks

The September 2005 "Analysis of S.852 Fairness in Asbestos Injury Resolution (Fair) Act" prepared by Bates-White, LLC, presents independent and further risks. Whether or not one accepts its quantitative estimates of liabilities, the report correctly describes additional risks to the S.852 fund. As Bates-White notes, all previous forecasts of the S.852 fund have assumed continuation of levels of claiming that now obtain in asbestos litigation. But there is considerable risk that the numbers of claims submitted to the fund will be far greater, particularly for lung cancer, other cancers and nonmalignant diseases. As Bates-White discusses, the incidences of these diseases among asbestos exposed workers are greater than the incidences forecast by Nicholson, Perkel and Selikoff and other epidemiological forecasts because of the limited range of asbestos-using industries considered in the epidemiological forecasts and because the epidemiologists were concerned only with the extra burden of cancers caused by asbestos exposure and not the total number of cancers that will occur within the exposed populations.

There are many other occupations and industries in which asbestos exposures occurred in addition to the occupations and industries identified in Dr. Nicholson's 1982 paper. Dr. Nicholson's paper addresses excess cancer deaths caused by exposures only in the primary asbestos-using industries, not all industries where workers were exposed to asbestos. Recent data from the Manville Trust shows that only 60% of Manville Trust claims for lung or other cancer are among workers exposed in a Nicholson industry; 40% were exposed in other, non-Nicholson industries. The pool of lung cancer and other cancer incidence (and resulting potential claims) among all persons

exposed to asbestos could be at least twice the amount forecast solely from exposures within the Nicholson industries.

"Excess" and "base rate" are epidemiological terms about populations and estimates of total numbers of deaths that are "in excess" of the "base rate" of deaths that would be expected in a given cohort had they not been exposed to asbestos. These concepts are irrelevant to the diagnosis and qualification of individual claimants. To qualify for compensation under S.852, all that a lung cancer claimant must show is pleural disease or asbestosis and that he or she worked in an occupation for a required number of years which presented asbestos exposure on a regular basis. The number of claimants who might meet these qualifications includes both the counts of excess and base rates cancers and is far greater than the number of excess lung cancer deaths forecast by epidemiologists.

Bates-White not only raises the specter of larger populations of potential claimants than previous analysts have considered, as discussed above, but also notes that a greater fraction of these potential claimants will likely file claims than has occurred before in litigation.

In pointing out that the population of persons who can qualify for S.852 compensation is greater than analysts have previously considered and that the percent of these potential claimants will likely increase from previous rates in litigation, Bates-White imply even further risks that liabilities under S.852 will exceed the promised $140 billion of revenue. I have accounted for neither of these risks in my discussions above.

Written Statement of Dr. Francine Rabinovitz
Before the United States Senate Committee on the Judiciary
Concerning S. 852 ("FAIR Act of 2005")

Introduction

I am Dr. Francine Rabinovitz. I currently serve as Executive Vice President of the consulting firm Hamilton, Rabinovitz & Alschuler, Inc. ("HR&A"). I received my undergraduate degree from Cornell and my Ph.D. from the Massachusetts Institute of Technology ("MIT"). I have spent my career applying statistics and other social science research methods to a variety of public policy issues.

Over the last 30 years, I have devoted substantial time and attention to the estimation of personal injury claims in a variety of mass torts, and with respect to asbestos claims specifically. As a result, I have deep experience with both asbestos compensation schemes and the available data. Somewhat uniquely, I have been an expert for a variety of interests in litigation, including court-appointed future claims representatives, insurers, defendants, and debtors.

I. Basis for Original Claims Forecast

Based on my experience providing asbestos claims projections for a variety of clients in the context of bankruptcy proceedings and corporate disclosures, I have been involved in developing claims projections for the various iterations of the FAIR Act over the last several years. I have previously provided the Committee with claims forecasts and explanations of my methodology. The claims projections that I have provided to the Committee on prior occasions were calculated by methods that have been tested, published and widely accepted by other experts and by courts.

As I explained to the Committee earlier this year when I had the opportunity to provide testimony regarding claims projections under the FAIR Act, it is important to keep in mind the uncertainty that necessarily accompanies the task of forecasting asbestos personal injury claims under S. 852. The primary factors driving the uncertainty are: (1) the lack of a national registry or database of asbestos claims; and (2) the absence of any other administrative compensation system that employs exactly the same medical and other eligibility criteria as the FAIR Act.

Notwithstanding these uncertainties, my claims forecast uses the best available resource to estimate the number of asbestos personal injury claims filed in the U.S. each year – the experience of the Manville Personal Injury Settlement Trust ("Manville Trust") – which due to the historically ubiquitous nature of Manville asbestos, is largely considered by experts to represent the universe of U.S. asbestos claims.[1] As the starting point for my claims projections,

[1] U.S. Bankruptcy Judge Burton Lifland, in a recent case, found that: "This unrebutted – indeed, undisputed – evidence of the breadth and length of Manville's asbestos involvement compels the conclusion, as a factual matter, that essentially all potential asbestos claimants ... have been exposed to Manville asbestos." In re Johns-Manville Corp., Nos. 82 B 11656, 82 B 11657, 82 B 11660, 82 B 11661, 82 B 11665 through 82 B 11673 inclusive, 82 B 11675, 82 B 11676 (Bankr. S.D.N.Y. Aug. 17, 2004).

the Manville claims forecast is not only helpful due to its incorporation of real world experience from the extensive Manville claiming history; it also has the benefit of being built upon epidemiological modeling. With the Manville forecast as my base, application of the FAIR Act's eligibility criteria, along with extensive smoking data and epidemiological findings to properly distribute claims across disease compensation levels, allowed me to calculate claims projections for the approximately 50-year life of the compensation fund ("Fund") created by the Act. However, it should be noted that a number of uncertainties remain in S. 852, the impact of which my analysis does not take into account, including: the various provisions related to Libby claimants, the potential expansion of the Libby provisions to other sites, the FELA / Jones Act adjustments, the inclusion of exposure to naturally occurring asbestos in the exceptional medical claims provisions, and the use of CT scans to satisfy the medical criteria.

As previously presented to the Committee, the cost of compensating the claims predicted by my claims forecast would fall well within the $140 billion of funding available under S. 852.

II. Congressional Budget Office Report on S. 852

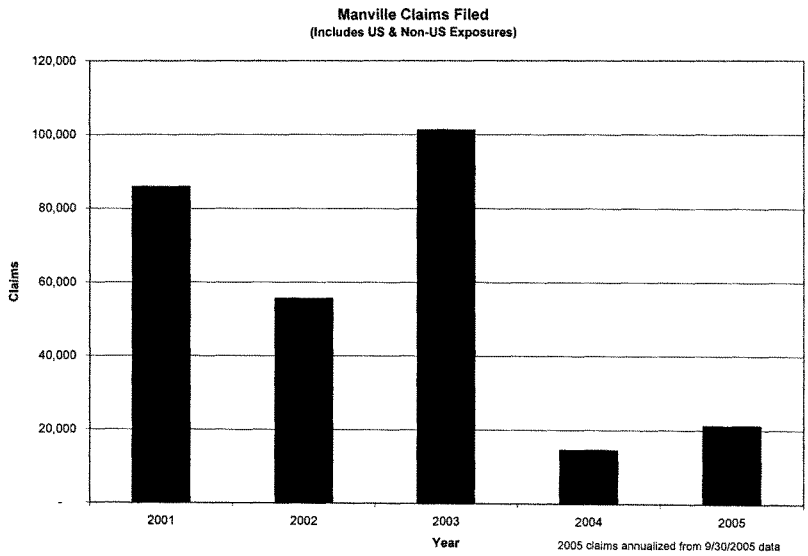
In August of this year, the Congressional Budget Office ("CBO") released its independent analysis of S. 852 in which it estimated that the Fund would pay out $132 billion in total claimant compensation – inside a range of $120 billion on the low end to $150 billion on the high end – and affirmed the Fund's likely solvency. The claims projections underlying CBO's cost estimate were developed after consideration of the Manville Trust experience and the claims forecasts of a number of private groups with various perspectives on S. 852. Although I have some disagreements with the projections relied on by CBO and some of the assumptions upon which it based its conclusions (e.g., incorporation of Dr. Peterson's non-malignant estimates which have since been contradicted by the recent experience of the Manville Trust and its updated claims forecast (see footnote 7)), the fact that CBO's independent experts determined that the value of projected claims would likely fall comfortably within the scheduled funding under S. 852 – consistent with my claims forecast – provides additional independent support for the reasonableness of my FAIR Act claims forecast. Also consistent with my S. 852 claims analysis, the CBO report recognizes that there continue to be some unknowns with respect to the S. 852 claims forecasts, including the potential impact of the Libby provisions and the possible expansion of the Libby provisions to additional sites.

III. Manville Revised Claims Forecast

The starting point for developing the FAIR Act claims forecast was the Manville claims history and the Manville claims forecast developed in 2001. Near the end of 2003, the Manville Trust implemented a revised Trust Distribution Process ("TDP") with strengthened eligibility criteria, including more stringent exposure requirements, that look more like those of S. 852. This has been accompanied by a marked decline in claims over the last two years. For example, total Manville claims in 2004 dropped to around 15,000 claims – a reduction of more than 80,000

claims compared to 2003.[2] Similarly, it appears that Manville's 2005 claims will total approximately 20,000 claims. (See Exhibit A)

Exhibit A: Reduction in Manville 2004-5 Claims



Additionally, earlier this year, the Manville Trust revised its future claims forecast to take into account its new TDP. Manville's updated weighted average claims forecast reduced the Trust's previous future claims estimate (for 2005 forward) to 901,906 claims from a previous estimate of 1,151,884 claims – a reduction of more than 20%. The updated claims forecast still may overstate future Manville claims. Through September 30, 2005, the updated weighted average forecast for 2005 exceeded the annualized actual claims against the Trust in 2005 by approximately 20,000 claims. But since one complete year of experience is not dispositive, and given the variability in its claims history, the forecast is properly conservative.

Furthermore, as the investigations flowing from U.S. District Judge Janis Graham Jack's findings of "great red flags of fraud" in the Silica Multi-District Litigation ("Silica MDL") in Corpus Christi run their course, claims against the Manville Trust may further decline. Already, Judge Jack's findings have led the Manville Trust to disqualify ten doctors and twelve screening companies which were linked to about 20% of Manville's previously paid claims.

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[2] Some portion of the rise in 2003 claims may have been due to the implementation of the new TDP in late 2003.

IV. Bates White Analysis of S. 852

Dr. Charles Bates ("Bates") of Bates White, LLC recently released a cost estimate of S. 852 – predicting that the Fund's cost of compensating qualified claimants will significantly surpass all other experts' estimates. Bates' claims forecast and program costs appear to be driven by two major and several other methodological flaws:[3]

- Overestimation of the population occupationally exposed to asbestos
- Failure to fully apply the S. 852 exposure criteria
- Other methodological problems (e.g., use of data regarded by Manville as unreliable)

A. Bates Overestimates the Exposed Population

Despite the availability of widely used and accepted estimates of the occupationally exposed population, Bates developed an estimate that is significantly higher than any other existing projection. Bates' estimate of the exposed population of workers is a substantial overestimate, probably due to his inclusion of workers in occupations and industries with little or no exposure to asbestos.

Bates' work stands against a seminal work of epidemiology, expert testimony in many contested cases, and years of verification against third party sources. Thus, the probability that his outlier projections will be accurate is low. The seminal work on the extent of occupational asbestos exposure was conducted by Nicholson, Perkel, & Selikoff (1982) ("Nicholson"). Nicholson's estimate of the size of the asbestos exposed worker population, as updated in the National Gypsum litigation ("Nicholson / KPMG estimate"), is widely accepted as the starting point for claims projections in bankruptcy courts and other contexts. Through an intensive review of data from the Bureau of Labor Statistics ("BLS"), unions, trade associations, the U.S. Navy, and other government sources, Nicholson conducted an industry by industry and occupation by occupation analysis to determine what portion of which industries and occupations were occupationally exposed to asbestos.

Bates, on the other hand, has vastly expanded Nicholson's industries and asbestos exposed occupations to include those in which workers would likely have little or no occupational exposure to asbestos, based on more general U.S. Census data that is collected less often than BLS data and on one identified study by Cocco and Dosemeci (1999). Based on this information, Bates' "exposed" population includes, for example:

[3] Due to the continuing ambiguity in many parts of Bates' analysis of S. 852, his projections do not allow replication. For this reason, much of my analysis must be qualified using phrases such as "Bates program costs *appear*" or "Bates *appears* to make the further methodological error." Such qualifying words do not indicate that Bates' analysis is accurate, but merely expresses the opaque and un-replicable nature of his work.

- architects
- bus drivers
- deliverymen and routemen
- taxi cab drivers and chauffeurs
- truck and tractor drivers
- barbers, beauticians, and manicurists
- housekeepers and stewards (except private households)

By adding these and other occupations and industries in which workers had little or no asbestos exposure, Bates arrives at an estimate of the exposed population that is both unrealistic and vastly greater than Nicholson's estimate.

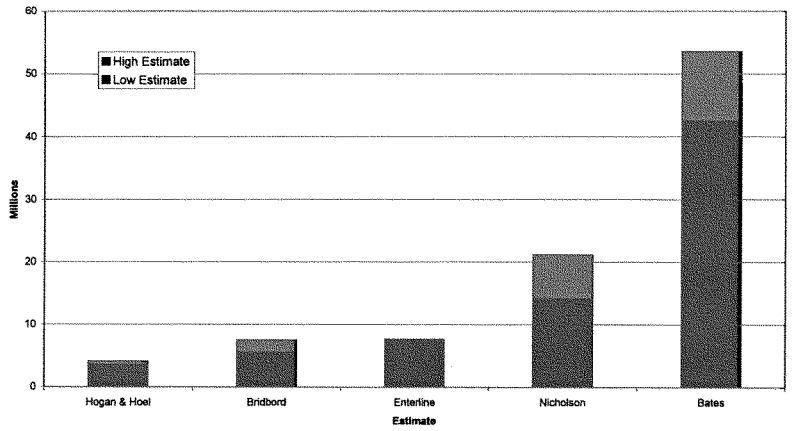
Because significant occupational exposure to asbestos associated with asbestos-related diseases largely ended in the 1970s due to government regulations, estimates of the exposed population stopped adding new entrants into the population by the late-1970s. Nicholson estimated that from 1940 through 1979, 27.5 million workers were exposed to asbestos and that of that number, 18.8 million had potentially significant levels of exposure (equivalent to more than two months in primary manufacturing or insulation). (Nicholson, pp. 282, 288). By 1980, Nicholson estimated that 21 million exposed workers were still alive, including 14.1 million workers with potentially significant exposure. (pp. 288-9). In addition to the longstanding acceptance Nicholson's findings have received among experts, data on mesothelioma deaths from the National Institutes of Health ("NIH") Surveillance Epidemiology and End Results ("SEER") Program – an independent and authoritative registry of cancer incidence – have largely affirmed Nicholson's work year after year.

Bates' estimate of the exposed population differs greatly from Nicholson's medically driven, peer reviewed, neutrally and scientifically motivated, time tested findings. Bates' estimate of the living exposed population in 1980 is approximately 43 million workers – double Nicholson's estimate of the living exposed population in that same year. An even greater contrast is seen when one compares Bates' 1980 living exposed population to Nicholson's 1980 living population with potentially significant exposures – Bates' estimate is more than triple Nicholson's estimate.

Exhibit B below shows that Bates' 1980 living exposed population estimate is many times higher than estimates by three other experts, in addition to Nicholson. Specifically, while Bates estimates that there were approximately 43 - 54 million living exposed workers in 1980:

- Hogan & Hoel (1981) estimated 3.55 – 4.1 million living exposed workers in 1980 (from a total exposed population of 7.1 – 8.2 million workers)
- Bridbord et al. (1978) estimated 5.5 – 7.5 million living workers with "significant exposure" in 1978
- Enterline (1981) estimated 7.6 million living exposed workers in 1981

Exhibit B: Estimates of 1980 Living Population Occupationally Exposed to Asbestos



According to Bates' analysis, the 1980 living eligible population constituted over half of the male population over the age of 18 in that year.[4]

The recent work of Dr. Tom Vasquez provides another example of the outlier nature of Bates' estimate. In his expert testimony in the Owens Corning bankruptcy case earlier this year, Dr. Vasquez testified that only 6-10 million occupationally exposed asbestos workers are still alive based on estimates of the exposed population derived from those of Nicholson (i.e., Nicholson / KPMG estimate). In contrast, Bates estimates that there are still approximately 23 million exposed workers alive today. Exhibit C below serves to further demonstrate the order of magnitude by which Bates overestimates the exposed population.

[4] As indicated in NERA's testimony before the Committee on November 17, 2005 (p. 5, footnote 3), the male population over the age of 18 is the appropriate reference group as asbestos claimants have historically been almost entirely male and men under 18 in 1980 would not have occupational exposure to asbestos. U.S. population from the statistical abstract of the United States.

Exhibit C: Surviving Exposed Workers By Year (millions)

Year	Living Exposed (Vasquez)	Living Exposed (Bates White)	Percentage by Which Bates White Exceeds Vasquez
2001	10.3	26	252%
2010	5.9	20	339%
2020	2.8	12.5	446%
2030	0.9	6	667%
2040	0.1	2.5	2,500%

Because Bates' exposed population estimate is the starting point and foundation of his claims forecast and program cost estimates, Bates' overestimation of the exposed population – in addition to his failure to fully apply the S. 852 exposure criteria (discussed below) – appears to drive Bates' seemingly exaggerated claims forecast and cost estimates.

B. Bates Fails to Apply S. 852 Exposure Criteria

Of course, not all workers in the exposed population will satisfy the S. 852 exposure criteria. Yet, in addition to substantially overestimating the size of the exposed population, as discussed above, Bates appears to make the further methodological error of equating the inflated exposed population and the eligible population under the FAIR Act. It is unclear, however, what criteria Bates applies in making this assumption. Bates' apparent failure to apply the S. 852 exposure criteria to his already overstated exposed population will lead to a significantly overstated eligible population.

The S. 852 exposure criteria are critical to the Fund's goal of ensuring compensation for the true victims of asbestos exposure. That is, in place of the tort system's causation requirements, the Fund's administrative compensation system employs exposure criteria. For instance, it is well understood that most asbestos-related illnesses, including lung cancer, are dose dependent. That is, the more intense and lengthy exposure, the more risk. Given the changes in government regulations, the high exposures generally causative of asbestos-related illnesses were largely eliminated in the 1970's. The S. 852 exposure criteria take these issues into account. This causal connection is important given that the conditions covered under the bill have other causes, particularly lung cancer which is largely attributed to smoking.

In formulating claims projections for the FAIR Act, consideration and application of the exposure criteria are critical to producing an accurate forecast. In producing my original claims forecast for the FAIR Act, I reviewed a sample of Manville claimants' medical and work history records to determine an appropriate disqualification rate to reflect the FAIR Act's exposure criteria.

It is unclear how the Bates analysis, on the other hand, applies the S. 852 exposure criteria, if at all. That is, Bates' "eligible population" or "occupationally eligible population" appears to be his exposed population, not reflective of the S. 852 exposure criteria. By failing to apply the

exposure criteria, Bates' estimate of the "eligible population" will vastly overstate the number of workers that could actually be eligible for compensation under S. 852.

For example, S. 852 requires that each claimant demonstrate "substantial occupational exposure" to asbestos. Substantial occupational exposure under the bill means employment in an industry and occupation where for a "substantial portion of a normal work year for that occupation," the claimant (1) handled *raw asbestos fibers*; (2) fabricated asbestos-containing products resulting in exposure to *raw asbestos fibers*; (3) altered, repaired, or otherwise worked with asbestos-containing products resulting in exposure to *asbestos fibers* on a "regular basis"; or (4) worked in close proximity to any worker engaged in the above activities resulting in exposure on a "regular basis" to *asbestos fibers*. S. 852 defines "on a regular basis" as "on a frequent or recurring basis."

While Bates significantly expands Nicholson's exposed population estimate by adding occupations such as architects, taxi cab drivers, and barbers, as discussed above, Bates fails to explain how workers in such occupations would satisfy the Act's substantial occupational exposure requirement – e.g., on what basis does Bates contend large numbers of architects, taxi cab drivers, and barbers were exposed to asbestos fibers on a regular basis? Given the dose-response nature of most asbestos-related illnesses, the Act's substantial occupational exposure requirement, in combination with the weighted years of exposure requirement discussed below, serves as a proxy for dose and, thereby, causation. The requirements are an important filter intended to identify workers who may have been exposed to levels of asbestos that may have caused illness. Failure to apply this important filter can lead to a vast overestimation of the population of workers eligible for compensation under S. 852. Bates never explains how he applied this filter.

In addition to the substantial occupational exposure requirement, the exposure criteria under S. 852 require:

- **Level VII claimant** (lung cancer with underlying pleural conditions): 12 "weighted" years of substantial occupational exposure to asbestos

- **Level VI claimant** (other cancers): 15 "weighted" years of substantial occupational exposure to asbestos

Given that asbestos-related illnesses other than mesothelioma are generally dose-dependent, actual years of exposure under S. 852 are weighted according to industry and time (i.e., years in which exposure occurred) in order to reflect the probable dose of asbestos and thereby determine whether a causal connection exists between the claimant's injury and asbestos exposure. The time-weighting element reflects the fact that the levels of occupational exposure were significantly diminished in the 1970's with OSHA regulations. The result is that many workers – especially those deemed to have "moderate exposure" under the industry weighting provision, including millions of workers in the no or low-exposure occupations and industries added by Bates – will not have sufficient work tenure to satisfy the exposure criteria for disease Levels VI and VII.

In particular, while Bates adds new workers to the exposed population through 1975, the time weighting provision under S. 852 will leave many claimants whose first occupational exposure occurred in the late-'60s or after unable to satisfy the occupational exposure criteria. For example, a railroad engineer must first establish that he had substantial occupational exposure to asbestos fibers. If that requirement can be met, such an engineer, if he started working in 1973, would need 58 years of substantial occupational exposure to meet the 12 weighted year requirement for Level VII and 88 years to meet the 15 weighted year requirement for Level VI. (See Exhibit D)

Exhibit D: Actual Years of Exposure Required For Levels VI and VII Claimants With "Moderate Exposure"

Year work began	Actual years required if "moderate exposure" Level VI	Level VII
1966	20	14
1967	25	15
1968	34	16
1969	43	17
1970	52	22
1971	61	31
1972	70	40
1973	79	49
1974	88	58
1975	97	67

Data from the National Center for Health Statistics provides further empirical evidence of Bates' failure to accurately apply the S. 852 occupational exposure criteria to his already erroneously inflated exposed population estimate. Bates' report estimates that in 1995, among those workers in his living eligible population, the excess (i.e., asbestos-caused) incidence of lung cancer was 4,900 while the background incidence was 72,500. By comparison, the National Center for Health Statistics reported 91,856 lung cancer deaths among men and 151,200 lung cancer deaths overall in 1995. Bates' lung cancer estimates suggest that as much as 84% of men or 51% of all men and women that died from lung cancer in 1995 would have been able to demonstrate "substantial occupational exposure" to asbestos and 12 weighted years of exposure on the job (including the effects of the time weighting provision of the bill to reflect lesser exposures by the 1970s). Exhibit E displays the unrealistic nature of Bates' estimates when compared to empirical data.

Exhibit E: Bates' Estimate of the Number of Eligible 1995 Lung Cancer Claimants Compared to Actual 1995 Lung Cancer Deaths

Bates FAIR Act Analysis		National Center for Health Statistics		
Bates Report Source	1995 Lung Cancer	1995 Lung Cancer Deaths		
		Male	Female	Total
Exhibit 9: "Eligible" Excess	4,900			
Exhibit 11: "Eligible" Background	72,500			
Total	77,400	91,856	59,344	151,200
Bates Est. / NCHS Count (%)		**84%**		**51%**

In sum, Bates' failure to fully account for the S. 852 occupational exposure criteria leads to a significant overestimate of the eligible population, as many workers' job tenures are too short and many workers began work too late to realistically accrue sufficient weighted years of exposure.

C. Bates' Analysis Contains Additional Methodological Errors

Although Bates' inaccurate S. 852 cost estimate appears to stem from his overestimate of the exposed population and apparent failure to apply the exposure criteria, there remain a number of open questions as to the methodology used.

As one example of his questionable assumptions, Bates appears to equate meeting the criteria for "other cancers" claims (Level VI) to an "entitlement" to cash, resulting in a flood of claims. Bates does not mention, however, that Level VI claims must go to a physicians panel for a determination of causation. While the provisions do provide for a rebuttable presumption, Bates appears to ignore the potential impact of this individualized review.

Bates' treatment of filing rates raises additional questions. As Bates notes, changing the filing rate to 80% for malignant claimants alone decreases Bates' lowest cost estimate by more than $50 billion. The Manville Trust, which Bates acknowledges as eventually receiving virtually every tort claim, does not exhibit a 100% filing rate. Yet, like the FAIR Act, it involves a streamlined administrative system that provides simple, non-adversarial, low cost access to eligible asbestos claimants.

Bates also makes questionable assumptions regarding the incidence of pleural disease. For example, although the FAIR Act requires that pleural conditions be bilateral (i.e., both lungs) – so that unilateral pleural conditions caused by infections and factors other than asbestos can be identified – the Bates report relies on numerous studies that are not limited to bilateral pleural abnormalities. It is also unclear how Bates accounted for variations in exposure intensity among industries and occupations, which may have a significant impact on the prevalence of asbestos-related pleural conditions.

In addition, Bates alleges that he used Manville data to distribute pending lung cancer claims, but, based on the Manville data that is available, this distribution cannot be duplicated. Indeed, when I inquired about the data set from Manville that may have been provided to Bates White, I was told that Manville now declines to provide this information because it has been deemed unreliable by the Trust.

Even more significantly, Bates allegedly uses the same Manville data to distribute pending and future lung cancer claims across smoking categories – significantly overstating the number of non-smokers when compared to other projections. Indeed, it was not until my thorough review of Manville files and my adjustment of the Manville data for use in its suit against the tobacco industry that claimants' smoking histories could accurately be determined. Other experts, including Dr. Peterson and NERA Economic Consulting, now routinely use this data. Bates does not seem to recognize that what he received was found inaccurate by Manville itself.

V. Testimony by Dr. Mark Peterson

In his testimony before the Committee on November 17, 2005, Dr. Peterson ("Peterson") predicted an early sunset of the Fund. Peterson's insolvency predictions are largely driven by two analytical errors:

- Exaggerated pending claims estimate
- Overestimation of future mesothelioma claims

A. Peterson's Analysis of Pending Claims is Flawed

In his testimony, Peterson stated that so large a number of pending claims would arrive very early in the Fund's life that they would quickly outstrip the Fund's available resources, forcing an early sunset of the Fund. Specifically, Peterson estimated that there are between 540,000 and 570,000 asbestos claims currently pending in the tort system.[5] Using the same flawed analysis, Peterson assumes the Fund would face between 700,000 and 730,000 pending claims if it began paying claims in 2008. While Peterson's overestimation of pending claims is effective in producing sunset scenarios, it does not accurately assess the probable number of net pending claims and the likely financial solvency of the Fund.

Peterson arrives at his pending claims estimate by adding the estimated number of claims filed from 2003 through 2005 to the estimated 300,000 claims that were pending at the end of 2002.

[5] In the past, other experts, including CBO and Peterson, have assumed that there were 300,000 pending claims as of the end of 2002 – this is the number Peterson now augments with additional claims. Recently, in its report on S. 852, CBO estimated that there are now 322,000 pending claims. Peterson's estimated 240,000 – 270,000 additional pending claims likely includes a large number of unimpaired non-malignant claims that would not be eligible for compensation, but may be eligible for medical monitoring. CBO estimates that approximately 85% of non-malignant claims would qualify for medical monitoring from the Fund. (CBO August 2005 Report, p. 9).

The collateral source provision in S. 852 requires claimants to offset awards from the Fund with any prior compensation collected in the tort system for their claim.[6] The fundamental assumption underlying Peterson's methodology is that claimants who filed after 2002 have not received *any* compensation. Peterson attempts to support his assumption by citing defendant bankruptcies and solvent defendants' alleged unwillingness to settle claims in light of Congressional consideration of S. 852.

Contrary to Peterson's assumptions, defendant bankruptcies and Congressional consideration of the FAIR Act have not "dried up compensation payments" (Peterson Testimony at 3) over the last three years. First, Peterson suggests that the bankruptcy filings of eight manufacturers in 2000 and 2001 took away the source of a majority of compensation received by many claimants. In reality, as asbestos suits have driven scores of companies into bankruptcy, plaintiffs lawyers have located fresh "revenue sources" by targeting new defendants – from "mom-and-pop" businesses to large corporations – who have increasingly tenuous ties to asbestos. In fact, RAND data contradicts Peterson's claim that bankruptcies in 2000 and 2001 created a significant hole in plaintiff compensation. In its highly regarded and widely cited recent report, RAND described the steady increase in asbestos claimants' net compensation from $3.114 billion in 2000 to $4.347 billion in 2002. (RAND, "Asbestos Litigation" (2005) at 93).

Exhibit F: Rise in Claimants' Net Compensation From 2000-02

Year	Net Compensation	Percentage Increase
2000	$ 3.114 billion	10.2%
2001	$ 3.65 billion	17.2%
2002	$ 4.347 billion	19.1%

As Exhibit F demonstrates, defendant bankruptcies have not "dried up" claimant compensation, as plaintiffs attorneys have pursued increasingly peripheral defendants.

Additionally, some of the defendants forced into bankruptcy have successfully reorganized and, as a part of their reorganization plans, have established asbestos trusts. Compensation paid to claimants by asbestos trusts over the last three years has included, for example: over $230 million by the Manville Trust in 2003, more than $11 million by the H.K. Porter Asbestos Trust in 2004, and millions more from other trusts. Thus, Peterson's pending claims estimate, which assumes no "appreciable" compensation of claimants over the last three years, is significantly overstated.

Second, Peterson contends that Congressional consideration of the FAIR Act starting in 2003 "has almost halted the willingness of defendants to settle and has dried up compensation payments." (Peterson Testimony at 3). While Peterson offers no support for this fundamental premise underlying his pending claims analysis, recent SEC filings of a number of asbestos

[6] As Peterson's testimony recognizes, "[t]he 300,000 number takes collateral source payments into account – it actually represents more than 300,000 claimants, some of whom had already received some compensation from asbestos defendants and trusts."(Peterson Testimony at 3).

defendants contradict his premise, evidencing asbestos defendants' continued payment of significant amounts of claimant compensation each year. For example, Exhibit G shows five companies – Owens-Illinois, Foster Wheeler, Georgia-Pacific, Crown Holdings, and Goodyear Tire & Rubber – that paid more than half a billion dollars in 2004 alone to defend and resolve asbestos claims.

Exhibit G: Asbestos-Related Payments by Certain Defendants in 2004

Owens-Illinois	2004 10-K, page 35	$190.1 million
Foster Wheeler	2004 10-K/A, page 118	$100.2 million
Georgia-Pacific	2004 10-K, page 100	$200 million
Crown Holdings	2004 10-K, page 13	$41 million
Goodyear Tire & Rubber	2004 10-K, page 18	$29.9 million

Peterson's pending claims estimate ignores the hundreds of millions of dollars paid to claimants in 2004 by these five defendants, let alone compensation they paid in 2003 and 2005, and even more significantly, compensation paid from 2003-05 by all of the other thousands of asbestos defendants. By asserting, without empirical support, that claimant compensation "dried up" over the last three years, Peterson ignores billions of dollars collected by claimants – all of which would be treated as collateral source compensation under S. 852. The result of Peterson's flawed assumptions is an exaggerated net pending claims estimate.

B. Peterson Overestimates Future Mesothelioma Claims

In addition to Peterson's misguided pending claims analysis, the other major factor driving the early sunset scenarios in Peterson's most recent testimony is his inflated estimate of the probable mesothelioma claims under S. 852. Peterson's mesothelioma claims estimate – now between 66,000 and 87,000 claims – is significantly overstated. First, and most significantly, Peterson's estimate of future mesothelioma claims, which seems to rely on the updated Manville claims forecast, appears to include mesothelioma claimants who were exposed to asbestos outside the United States. Peterson states that "[t]he mesothelioma criteria are the same in both regimes" (i.e., under S. 852 and the Manville 2002 TDP) (Peterson Testimony at 6) – but fails to appreciate the important distinction that Manville is liable to mesothelioma claimants exposed to its products outside the U.S. by virtue of the specific provisions of the Manville Plan of Reorganization which are unique to the Plan and not part of S. 852. The effect of this methodological error is significant: Manville's updated claims forecast includes approximately 20,000 mesothelioma claims based on non-U.S. exposure, causing Peterson's estimate of probable mesothelioma claims under S. 852 to be overstated.

Underlying Peterson's mesothelioma claims analysis is his assertion that the "Manville 'most likely' case ... [is] 69,000 mesothelioma claims." (Peterson Testimony at 6). It is very difficult to understand the basis for Peterson's calculation. The updated Manville forecast's weighted

average estimate of future mesothelioma claims is actually significantly lower than that cited by Peterson.[7]

VI. Uncertainties in S. 852

As previously noted, there continue to be a number of uncertainties with respect to claims projections and the cost of compensating such claims under S. 852. The uncertainties stem in part from several provisions that have been added to the FAIR Act since I completed my original projections.

A significant component of Bates' analysis is his estimate that 10-25% of eligible workers with lung or other cancer will have pleural conditions sufficient to satisfy the requirements under S. 852. Although I question some of the assumptions he may have used to apply this percentage (as noted above), there is an additional related area of uncertainty under S. 852 involving the use of CT scans by claimants to demonstrate pleural abnormalities and asbestosis – though the risk posed by this uncertainty does not give credence to the level of cancer claims forecast in Bates' analysis of S. 852. Due to the heightened sensitivity of CT scans compared to x-rays and the lack of widely accepted standards of interpretation, CT scans may cause significantly greater false positive indications of abnormalities. Notwithstanding these shortcomings, CT scans are expressly allowed under Level VIII without any provision for the development or use of standards.

Despite the tendency of CT scans to over-detect pleural abnormalities, S. 852 includes several provisions that would allow for use of CT scans as a diagnostic tool where previously they were only allowed as a supplement to x-rays for exceptional medical claims. Because several disease levels under the Act depend on a showing of pleural abnormalities by claimants, the Act's allowance of CT scans to demonstrate such conditions could significantly increase the number of qualifying claimants and, as a result, the cost of the Fund. Specifically, in its present form, S. 852 would allow for the possibility that Level VII lung cancer claimants could rely on a CT scan. Furthermore, the provisions do not appear to exclude the possibility of using CT scans for other disease levels, including Level VI other cancer claims. The potential impact of the new provisions for CT scans is not accounted for in my claims projections. (The provisions allowing for the use of CT scans do not appear to have been included in Bates' analysis either.)

In his report, Bates noted that a significant number of "dormant" claims remain pending in the tort system and would be compensated under S. 852 at a cost of $25 billion (subject to offsets for

[7] Dr. Peterson's estimate of between 1.47 million and 2.01 million non-malignant claims against the Fund, as submitted to the Committee on June 11, 2003, was and still is significantly higher than other experts' forecasts. The Manville claims forecast developed in 2001, for example, predicted 1.05 million future non-malignant claims from 2005 forward. Although Dr. Peterson relies on the updated Manville claims forecast in his most recent testimony before the Committee, he fails to draw attention to the fact that the updated forecast reduces the prior Manville projection of non-malignant claims by more than 30% – now predicting 680,179 non-malignant claims (based on U.S. exposures).

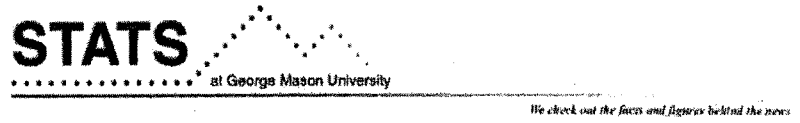
collateral source compensation). Bates' report defines such claims as pending claims filed prior to the year 2000. Although the validity of Bates' assertion that these claims will cost the Fund tens of billions of dollars is unclear, it raises an additional area of uncertainty, particularly if it results in the revival of "stale" claims not otherwise accounted for in any projections.

In addition to those mentioned above, my projections did not consider the impact of other provisions that have since been added to S. 852, due to the lack of information available. These include additional provisions related to Libby claimants, the potential expansion of the Libby provisions to other sites, the adjustment of compensation for FELA and Jones Act claimants, and the expansion of the exceptional medical claims process to include naturally occurring asbestos exposure.

Conclusions

CBO's independent, expert analysis of S. 852 is consistent with my claims forecast for the FAIR Act – both find that the amount of funding scheduled to be collected under S. 852 should be more than sufficient to pay all expected eligible claimants. The Bates White cost estimate for S. 852 is an outlier, driven primarily by the flawed methodology underlying Bates' estimation of the occupationally exposed population and Bates' failure to fully apply the S. 852 exposure criteria. Similarly, Peterson's pending claims analysis and mesothelioma projection rest on erroneous assumptions that result in a significant overestimate of the probable claims under S. 852.

Dr. Francine Rabinovitz



November 10, 2005

Contact: Matthew Felling 202-223-3193

INDEPENDENT REVIEW CONCLUDES PROPOSED ASBESTOS FUND WILL RUN OUT OF MONEY
STATS Compares Competing Reports and Finds Fund Could Be Bankrupt in Less than Three Years

Washington, D.C. – Today, the Statistical Assessment Service (STATS) at George Mason University released an independent study examining the accuracy of two different economic interpretations of The Fairness in Asbestos Injury Resolution (FAIR) Act of 2005.

The Fairness in Asbestos Injury Resolution (FAIR) Act of 2005, sponsored by Sens. Arlen Specter (PA) and Patrick Leahy (VT), removes asbestos claims from the courts and creates a $140 billion asbestos trust fund, and is to be financed by defendants and insurers. The Congressional Budget Office (CBO) and the Bates White research firm both found that the FAIR Act trust fund will go bankrupt, but differ on how long that will take and by how much.

The CBO calculated that payouts from the trust fund over the next 50 years will total about $120 to $150 billion, and revenue from the companies will be about $140. This could create a $10 billion shortfall.

According to Bates-White, it will cost the U.S. government over $300 billion dollars to pay for the trust – creating a $160 billion shortfall. Bates White also concluded that the trust fund could go bankrupt in just three years. "The only question at this point is just how under funded is the FAIR Act and how quickly will it go bankrupt," said Dr. Rebecca Goldin, Ph.D, Director of Research for STATS and author of the analysis.

STATS concluded that by looking at the overall number of people who suffered asbestos related injury, Bates-White came up with the most accurate measure of how many people will apply to the trust fund.

Dr. Goldin continued, "The CBO's method of using the number of people currently suing in court as a barometer for who will file claims against the trust fund is faulty. Why? Because people are a lot more likely to file a claim they are guaranteed to be paid then get involved in a long arduous court case – especially when they are sick or dying."

Additionally, the CBO's method of looking at other trust funds is suspect because those funds pay out as little as 5 cents on the dollar. The FAIR Act would create a guaranteed 100% payout that will increase the percentage of qualifying asbestos victims who apply for compensation.

Dr. Goldin concluded, "The FAIR Act will go broke faster than the bills sponsors have promised and either the companies or the taxpayers are going to have to bail out the trust fund to the tune of billions and billions of dollars."

STATS at George Mason University

We check out the facts and figures behind the news

What's Fairer for Asbestos Victims: The Tort System or the FAIR Asbestos Act?

November 10, 2005

By Rebecca Goldin Ph.D
Director of Research, STATS
Assistant Professor, Mathematical Sciences, George Mason University

Summary

- The Fairness in Asbestos Injury Resolution (FAIR) Act of 2005, sponsored by Sens. Arlen Specter (PA) and Patrick Leahy (VT), removes asbestos claims from the courts and creates a $140 billion asbestos trust fund, and is to be financed by defendants and insurers.

- The Congressional Budget Office (CBO) and the Bates White research firm both found that the FAIR Act trust fund will go bankrupt, but differ on how long that will take and by how much.

- The CBO calculated that payouts from the trust fund over the next 50 years will total about $120 to $150 billion, and revenue from the companies will be about $140. This could create a $10 billion shortfall.

- According to Bates-White, it will cost the U.S. government over $300 billion dollars to pay for the trust – creating a $160 billion shortfall. Bates White also concluded that the trust fund could go bankrupt in just three years.

- STATS concluded that by looking at the overall number of people who suffered asbestos related injury, Bates-White came up with the most accurate measure of how many people will apply to the trust fund.

- The CBO's method of using the number of people currently suing in court as a barometer for who will file claims against the trust fund is faulty. People are a lot more likely to file a claim they are guaranteed to be paid then to get involved in a long arduous court case – especially when they are sick or dying. Additionally, the CBO's method of looking at other trust funds is suspect because those funds pay out as little as 5 cents on the dollar. The FAIR Act would create a guaranteed 100% payout that will increase the percentage of qualifying asbestos victims who apply for compensation.

- The FAIR Act will go broke faster than the bills sponsors have promised and either the companies or the taxpayers are going to have to bail out the trust fund to the tune of billions and billions of dollars.

Full Text

The U.S. government is considering adopting the Fairness in Asbestos Injury Resolution Act of 2005 (S. 852). The beauty of the Act is that it exchanges litigation in the tort system (i.e. lawsuits against companies for damage due to asbestos) for an entitlement: show that you're a victim of asbestos, and the U.S. government will compensate you. Where does the money come from? Companies that have a history of using asbestos. It sounds perfect – the guilty companies pay, and asbestos victims receive, without having to go through the difficult and stressful judicial system.

The theory behind this kind of program is appealing. Most importantly, in the current system, asbestos victims are not getting compensated fully, equitably, or in a timely fashion. Currently operating trust funds for asbestos victims are paying between five and ten cents on the dollar for asbestos claims; they just don't have the money. Companies that have lost big money in the courts have been forced into bankruptcy. Victims take years to recoup any compensation through the tort system. Only the lawyers are getting their share.

A federal trust could solve the problem, so goes the theory. We could pay out claims quickly. We could save money for the plaintiffs and defendants by cutting out the lawyers. We could reduce administrative costs by categorizing the levels of harm that can be done by asbestos. We can make it equitable by fixing the payout in each category for anyone who can prove harm. Make the companies pay for the program, and everyone goes home happy – well, for the asbestos victims, happier than without the money.

Everyone is happy, that is, except tax payers who think corporations will foot the whole bill. According to the Congressional Budget Office (CBO), payouts over the next 50 years will total about $120 to $150 billion, and revenue from the companies will be about $140 billion. So it seems, it's a zero-sum game.

But according to another economic report (Bates-White), even under conservative assumptions, it will cost the U.S. government over $300 billion dollars to pay for the trust. Assuming the same $140 billion of revenue, that puts this program about $160 billion in the red. These conservative assumptions are similar to those assumed by the CBO – they don't account for a lot of possible risks that could increase the payout of the program substantially.

Who is right? The two important issues in an economic report of this nature are: what is the revenue, and what are the payouts. CBO and Bates-White disagree about the payouts, so STATS took a look at the underlying assumptions of these reports. The main difference is how the two studies estimate the number of claimants. How many people will have worked with asbestos, come down with an asbestos-related illness, and file a claim? Methods that could lead to an answer include:

1) Find out how many people have already filed a claim through the courts. This (might) give a good picture of how many people will file in the future.
2) Look at how many people filed for asbestos claims with other asbestos trusts (such as the Manville Trust). (Perhaps) this is similar to how many will file a claim with a government trust.
3) Examine the medical literature to evaluate the prevalence of asbestos-related disease. Then estimate the number of those people who will file a claim.

The number (and composition) of pending cases is a bad model for how claimants would respond to an asbestos trust. There is a big difference between going to court (or attempting to settle) – a process that involves a lot of time, and a fair amount of stress – and filing for a claim by filling out some paperwork, knowing that you have an entitlement to compensation. Obviously there will be more

claimants when the process is streamlined, and victims are guaranteed compensation if they meet the medical criteria. In the current tort system, cancer victims have a hard time winning their case, since cancer can be caused by many factors (including asbestos). Plus, who wants to go to court when you're about to die?

The second method also has some serious flaws: most important is the fact that the Manville Trust currently pays about five cents to the dollar on approved claims. How many people are bothering? A person dying of asbestos-related gastrointestinal cancer might get as much as $10,000 (as compared to about $200,000 if the new trust becomes law). The incentive to rush to get the bucks just isn't there.

The third method is probably the most accurate measure of how many people will apply; instead of worrying about incentives or disincentives to apply, you simply figure out how many people suffered the injuries. Then you estimate the percentage of those people who would know about and file for their deserved claim.

Need it be said? The CBO used the first two points to evaluate who will file. They even undermine their own findings: according to the CBO, current estimates are that the Manville Trust will receive 1.2 million additional claims, of which about one in eight are for malignant conditions. By our count, that is about 150,000 claims for the highest payments. But the CBO estimates only 78,000 claims for malignant conditions in the next 50 years. And it's worth noting that Senator Chuck Hagel of Nebraska (a supporter of the legislation) says the most recent estimate of additional claims to the Manville Trust is somewhere between 750,000 and 2.7 million. CBO is assuming the minimum.

Bates-White used the third technique for evaluating the number of future claims. Their conservative estimates are that 350,000 people will be entitled to compensation due to lung and other cancers associated with asbestos. They figure that someone who meets the criteria for compensation is *extremely* likely to file a claim: half a million dollars is a lot of money. It seems unlikely that only 22 percent, or 78,000 people, would file their claim. Bates-White's analysis of the payout accounts for the fact that a Trust inevitably changes the composition of claimants. And a well-funded entitlement program has a higher level of participation than the tort system.

Those opposed to the legislation claim that asbestos victims do not benefit: this is disingenuous. They do benefit, in the form of system that pays consistently and equitably, without hassle. A claimant may get less money than he or she would if victorious in the tort system, but many claimants whose claims would be difficult to prove in court would get money. Funds that are currently used to pay for litigation are essentially diverted to go directly to the victims.

On the other hand, the assertion that the trust solves the asbestos problem is disingenuous as well: the money just isn't there. When the money runs out, either the U.S. government will have a large unfunded obligation to victims of asbestos, or the victims will not get what they deserve. The only solutions are to hedge against the likely financial shortfall by collecting more revenues from the funding companies, change the funding source after the money runs out, or guarantee less compensation to the victims.

December 2, 2005

Mr. Barr Huefner
United States Senate
Committee on the Judiciary
224 Dirkson Building
Washington, DC 20510

Dear Mr. Huefner:

NOVEMBER 17, 2005 TESTIMONY – "RECENT DEVELOPMENTS IN ASSESSING FUTURE ASBESTOS CLAIMS UNDER THE FAIR ACT"

We read transcripts of the testimony presented on November 17, 2005 regarding "Recent Developments in Assessing Future Asbestos Claims Under the FAIR Act" with great interest. The testimony of Mark Peterson, Ph.D., President of Legal Analysis Systems, referred extensively to a client assignment[1] that my firm performed on behalf of the Manville Personal Injury Trust ("Manville" or "Manville Trust"). Dr. Peterson states that *"Tillinghast's forecast for the Manville Trust provides helpful and disinterested alternatives that can be used to evaluate CBO's forecast of the costs and risks of the S.852 fund."* However, several of Dr. Peterson's statements appear inconsistent with the conclusions from our Manville work. This letter provides clarification regarding Tillinghast's actual forecasts for Manville. Additionally, we provide some insights regarding the underlying Manville claim data.

Dr. Peterson makes numerous statements relating to implications for S.852 based on the combination of pending and future claims. He often refers to these statements as Tillinghast and Manville forecasts and conclusions; however, Tillinghast projected only the future asbestos claims experience for the Manville Trust. Claims filed with the Manville Trust are resolved quickly, so our analysis did not include any projections or summaries of pending claims. Thus, Dr. Peterson's statements must rely heavily on his own adjustments to include pending claims.

We note that Tillinghast has not used our forecasts of future Manville claims to evaluate S.852, in part due to differing definitions of disease between Manville's eight disease levels and S.852's nine disease levels.

[1] A public disclosure regarding our analysis is enclosed as Attachment 1.

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For malignant diseases the mapping from Manville to S.852 is relatively straightforward.[2] However, for nonmalignant conditions, the mapping between Manville and S.852 is more complicated with differing requirements for several diagnostic tests (e.g., ILO, TLC, FVC, FEV1/FVC).

COMPARISON OF FUTURE CLAIM FILINGS – TOTAL NEXT 50 YEARS

First, we provide a comparison of Tillinghast's projections of future claim filings for the Manville Trust to the CBO's estimated claims under S.852.

Comparison of Future Claim Forecasts
Tillinghast/Manville (U.S. Exposure Only) and CBO

	Mesothelioma	Lung Cancer	Other Cancer	Sub-total Malignant	Nonmalignant	Total
Tillinghast 2005+ Weighted	42,510	55,217	9,640	107,367	742,755	850,122
Tillinghast 2006+[3]						
Low – Scen 6	34,400	11,072	7,358	52,830	459,635	512,465
Wtd. – Point Est.	40,215 *(5.2%)*	25,525	9,173	74,913	705,144	780,058 *(100.0%)*
High – Scen 12	45,232	46,274	10,601	102,107	1,218,827	1,320,934
CBO 2006+	33,599 *(2.1%)*	33,574	11,193	78,366	1,183,562	1,584,177 *(100.0%)*
Difference: Tillinghast Wtd. Less CBO	6,616	(8,049)	(2,020)	(3,453)	(478,418)	(481,870)

This chart identifies some discrepancies in Dr. Peterson's testimony. In Section 4.2 he states, *"Both for mesotheliomas and all cancers, Tillinghast forecasts more than half again as many claims as CBO."* Additionally, in Section 4.4, Dr. Peterson states, *"Each*

[2] For example Manville Disease Level 8 mesothelioma claims map directly to S.852 Disease Level IX. Manville Disease Level 7 (lung cancer with underlying bilateral disease plus SOE and evidence that asbestos was a contributing factor) maps to S.852 Levels VII and VIII, and Manville Disease Level 6 (individually evaluated lung cancer claims that don't meet the Level 7 criteria) would not be compensated under S.852. For other cancers, Manville Disease Level 5 maps to S.852 Level VI.
[3] Adjusted to remove projected 2005 filings as well as Level 6 Lung Cancer claims, which would not be compensable under S.852.

Tillinghast scenario forecasts more compensable cancer claims than CBO, with substantially more mesothelioma claims than CBO (see Section 4.2 above)." In fact, Tillinghast projects 6,616 more mesothelioma claims (+20%) and 10,069 fewer lung and other cancer claims (-22%), adjusted to remove Manville Level 6 lung cancer claims which would not be compensable under S.852.

Mr. Peterson goes on to compare the forecasts of mesothelioma claims on a percentage basis, stating *"... this difference in the two forecasts of mesothelioma – 2.9 percent as a percent of all claims according to CBO versus 5.3 percent according to Tillinghast – results in sharply different forecasts ..."*[4] We note that the percentage comparisons are affected by the significantly different level of nonmalignant claims assumed by the CBO versus Tillinghast. Tillinghast assumes 478,418 fewer nonmalignant claims and this significantly increases the mesothelioma percent (5.2%) of total future claims. The percentage comparison does not imply that Tillinghast's mesothelioma projections are nearly double that of the CBO.

COMPARISON OF PENDING AND FUTURE CLAIM FILINGS

Next, we provide a summary of the CBO's present and future claims as well as figures from Dr. Peterson's testimony (many of which are attributed to Tillinghast).

Comparison of Pending and Future Claim Forecasts
CBO[5] and Dr. Peterson's Testimony

	Mesothelioma	Lung Cancer	Other Cancer	Nonmalignant	Total
CBO Pending	7,823	15,087	6,319	300,843	322,249
CBO 2006+	33,599	33,574	11,193	1,183,562	1,584,177
CBO Total	41,422 *(2.6%)*	40,838	17,512	1,484,405	1,584,177 *(100.0%)*
Peterson Total	69,000 (range: 66,000 – 87,000)				

[4] The percentages quoted by Dr. Peterson do not match the percentages calculated in the table on page 2 for future claims. Including the CBO's pending claims increases the mesothelioma percent to 2.6% versus Dr. Peterson's 2.9%. We speculate that Dr. Peterson included a different estimate of pending claims with the future claims when calculating the percentages cited in his testimony.
[5] Details by disease type from the November 16, 2005 letter from the CBO to Senator Specter "under one, moderate-cost scenario in which the value of the claims would be about $130 billion."

In Section 4 of his testimony, Dr. Peterson states, *"CBO predicted only 45,000 present and future mesothelioma claims, a forecast that is 35 percent less than the 69,000 forecast of mesothelioma claims under S.852 claims based on recent Tillinghast Towers Perrin forecasts for the Manville Trust."* Again, Tillinghast's analysis did not address pending claims. We assume that Dr. Peterson's reference to 69,000 present and future mesothelioma claims includes his own estimate of pending claims plus Tillinghast's estimate of future claims.

COMPARISON OF PENDING CLAIM ESTIMATES

Mesothelioma

The CBO and implied Peterson estimates of pending mesothelioma claims are quite different.

Comparison of Mesothelioma Claims

	CBO	Tillinghast	Peterson
Pending	7,823	N/A	28,785 *(implied = 69,000 – 40,215)*
Future (2006+)	33,599	40,215 (range: 34,400 – 45,232)	40,215 *("based on Tillinghast")*
Total (Pending & 2006+)	41,422 *(45,000 per Dr. Peterson)*	N/A	69,000 (range: 66,000 – 87,000)

In Section 4.2, Dr. Peterson *states "The Tillinghast forecast alternatives result in 66,000 to 87,000 mesothelioma claims as compared to CBO's forecast of 45,000. Only 5,000 of these differences in forecast mesothelioma claims result from increasing the pending claims for 2003-2005 filings that CBO had omitted. Most of the differences result from Tillinghast's greater forecasts of future mesothelioma claims."* It certainly appears that the pending count estimates (7,823 for the CBO and an implied 28,725[6] for Dr. Peterson) vary by more than 5,000 as stated by Dr. Peterson.

[6] From inception (1988) through September 30, 2005, the Manville Trust received 27,482 U.S. mesothelioma claims. This total is lower than the implied 28,785 claims that remain pending in Dr. Peterson's estimate of 69,000 pending and future claims.

COMPARISON OF FUTURE CLAIM FILINGS – NEXT TWO YEARS (2006-2007)

Dr. Peterson notes that the *"CBO's current report forecasts that 80,000 new claims will be filed annually between 2006 and 2008, 240,000 over the next three years..."* and he assumes that 160,000 claims need to be added to the pending claim count at year-end 2005 to correctly estimate the number of pending claims if S.852 begins operations in 2008. Tillinghast believes that the number of claims filed in 2006-2007 will be lower. The estimates above compare to Tillinghast projections for Manville of approximately 36,000 to 85,000 annual claims, with a point estimate of 53,000 annually from 2006 to 2008.[7]

Our estimates consider the lower level of nonmalignant claims filed against the Manville Trust (as a result of the change to the 2002 TDP), but future unimpaired claims are likely to decline for other asbestos defendants as well, considering medical criteria and pleural registries that have been adopted in some states and scrutiny of unimpaired claims arising from mass screening programs.[8]

Tillinghast's projections of future nonmalignant claims assumed that there would be some return to mass filing once several of the pending bankruptcy plans are approved and begin to pay claims. Although the value of nonmalignant claims was reduced under Manville's 2002 TDP and the recent filing of nonmalignant claims dropped dramatically, the incentive to pursue these claims might be restored once several of the more recent bankruptcy plans are confirmed. As long as payments to unimpaired claimants are not eliminated, even if they are small (e.g., Manville's $600), it might be worthwhile for claimants to pursue these small payments across multiple trusts, especially if the trusts establish efficient on-line mechanisms to process claims.

However, the level of scrutiny of unimpaired claims arising from mass screening programs has increased during the year, now including

- a federal grand jury investigation in New York;
- an inquiry by U.S. Representatives Joe Barton (R-TX) and Ed Whitfield (R-KY) of the House Energy and Commerce Committee;

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[7] Excluding 1,000 to 2,000 annual Level 6 lung cancer claims without underlying disease that would not be compensable under S.852.

[8] For example the 2004 Johns Hopkins study referenced in American Radiology where independent radiologists found abnormalities in 4.5% of films, as compared to the original readings where 96% of the films supposedly showed evidence of asbestos disease, and the testimony regarding mass screening diagnoses from hearings held by U.S. District Judge Janis Graham Jack *In re Silica Products Liability Litigation*, MDL-1553, Southern District of Texas.

- suspension of claims from certain medical screening companies and physicians by the Celotex, Eagle-Picher, and Manville Trusts; and

- the ongoing U.S. Chamber of Commerce study of medical diagnoses of past asbestos claims that includes construction of a database allowing review of relationships between physicians, screening companies and plaintiff law firms.

The impact of this heightened scrutiny may lead to fewer mass settlements of pending claim inventories and will likely impact whether and how mass screening activities are conducted in the future.

In the near term, we believe it is unlikely that claims will be filed at an annual rate of 80,000. Fewer mass screenings have been conducted over the last few years and the future of mass screening programs is uncertain. Considering the foregoing discussion, the CBO's estimate of 80,000 claims filed in each of 2006-2007 and Dr. Peterson's corresponding conclusion that 160,000 claims should be added to the pending count if the fund begins operations in 2008 appear overstated.

NONMALIGNANT CLAIMS THAT WILL QUALIFY FOR PAYMENT

Dr. Peterson makes several statements regarding the percent of nonmalignant claims that qualify for payment (i.e., S.852 Levels II – V, excluding Level I medical monitoring claims) that are attributed to Tillinghast projections, but do not appear to be supported by our projections.

- In Section 4.3 he states, *"CBO uses an unlikely assumption that only 15 percent of nonmalignant claimants would qualify for payment. The sources that CBO cites for its assumption, Tillinghast's and Manville Trust's forecasts of Manville claims, do not provide support."*

- In Section 4.4. he states, *"The Tillinghast and Manville forecasts accept no single assumption about the rate at which nonmalignant claims would qualify for payment. Rather, to reflect uncertainty, the research simulates 14 different sets of assumptions … The simulations assume that 23 percent or more of nonmalignant claims would most likely qualify for payment under the Manville payment procedures … it is most likely that 53 percent would qualify for payment with a one in six likelihood that 77 percent would qualify for payment."*

Tillinghast forecasted the following nonmalignant claims for Manville:

NONMALIGNANT CLAIM PROJECTIONS FOR MANVILLE

U.S. Exposure 2006+

Manville Disease Level	Tillinghast Low Scenario 6	Tillinghast Weighted Point Estimate	Tillinghast High Scenario 12	Assumed S.852 Disease Level[9]
1[10]	75,312	59,675	27,739	None
2	347,461	510,845	795,951	I (Med. Mon.)
3	35,164	122,896	343,597	II-III
4	1,698	11,728	51,540	III-IV
Total Nonmalignant	459,635	705,144	1,218,827	Total Nonmalignant

[9] Manville Level 1 claimants have bilateral asbestos-related nonmalignant disease or lung / other cancers that did not meet the criteria for Levels 5-8. Level 1 claimants do not meet a 5 year occupational exposure requirement, so we assumed that these claimants would not qualify for S.852 Level I medical monitoring.

Manville Level 2 claimants have bilateral asbestos-related disease and 5 years of occupational exposure plus 6 months exposure to a Manville product. The Level 2 claimants are assumed to qualify for S.852 Level I.

Manville Level 3 claimants have bilateral asbestos-related nonmalignant disease with ILO grade of 1/0 or greater (plus specified criteria for other medical tests) and 5+ years significant occupational exposure (SOE) and are assumed to qualify for S.852 Levels II or III.

Manville Level 4 claimants have bilateral asbestos-related nonmalignant disease with ILO grade of 2/1 or greater (plus specified criteria for other medical tests) and 5+ years SOE and are assumed to qualify for S.852 Levels IV or V.

[10] Manville Level 1 also includes malignancies that do not qualify for Levels 5-8. Approximately half of the Level 1 claims are currently malignancies.

The following table converts the claim filings to percentages:

NONMALIGNANT CLAIM PROJECTIONS FOR MANVILLE

U.S. Exposure 2006+

Manville Disease Level	Tillinghast Low Scenario 6	Tillinghast Weighted Point Estimate	Tillinghast High Scenario 12	Assumed S.852 Disease Level
1	16%	8%	2%	None
2	76%	72%	65%	I (Med. Mon.)
3	8%	17%	28%	II-III
4	0%	2%	4%	III-V
Estimated S.852 Compensable	8%	19%	32%	II-V

Our projections indicate lower percentages of nonmalignant claims that are likely to be compensated under S.852 than cited by Dr. Peterson.

ADDITIONAL INSIGHTS REGARDING MANVILLE DATA

In addition to increasing the pending claim estimate to reflect claims filed in 2006-2007 for a 2008 start date of S.852, Dr. Peterson asserts that the CBO's initial pending claim estimate of 322,000 as of 2006 is too low. He states that it should be significantly higher to reflect claims reported to Manville from 2003 to 2005. Our understanding of Manville's data does not support the magnitude of the adjustments suggested by Dr. Peterson.

Mesothelioma

In Section 4.1.1, Dr. Peterson states *"CBO ignores 8,500 recently filed mesothelioma claims. Since the beginning of 2003 the Manville Trust has received 9,400 new mesothelioma claims, but CBO's forecast counts only 900 of these newly filed mesothelioma claims. All 9,400 of these actual mesothelioma claim filings were not, but must be, included in CBO's count of claims that will be pending when the S.852 fund opens."* Dr. Peterson goes on to state that *"CBO's $120 to $150 billion forecast for claim liabilities must be increased by $9.35 billion simply to account for the additional 8,500 actual mesothelioma claims filed with the Manville Trust that CBO ignores."*

TOWERS PERRIN
TILLINGHAST

NON-U.S. CLAIMS. First, it appears that Dr. Peterson includes non-U.S. exposure when discussing 9,400 new mesothelioma claims. The Manville Trust received 9,377 mesothelioma claims from January 1, 2003 through September 30, 2005; however, 3,074 of these claims were made by foreign claimants. Considering U.S. exposure only, Manville received 6,303 mesothelioma claims during this time period.

TIMING DIFFERENCES. Next, Dr. Peterson's statements fail to consider timing differences in claims filed with the Manville Trust versus other defendants. Sometimes claims are filed against the Manville Trust prior to being filed in court against other defendants – in these cases, the settlement with the Trust might be used to provide immediate funds, often to front medical or litigation costs. However, in the majority of cases, claims are filed against the Manville Trust after they are resolved in the tort system, presumably to avoid an offset of the Manville settlement against other tort settlements and awards.

Data maintained by the Claims Resolution Management Corporation (CRMC) often includes both the date a claim is filed with Manville and the reported earliest litigation date. For the purpose of this letter, CRMC updated the year-end 2004 data provided for our client assignment through September 30, 2005 as summarized in the tables below.

Mesothelioma Claims Filed Against the Manville Trust
U.S. Exposure Only

Year Filed w/ Manville	Total U.S. & Non-U.S.	Sub-Total U.S. Only	Earliest Litigation Year (U.S. Only)						
			N/A	<=2000	2001	2002	2003	2004	2005
2003	4,321	2,808	1,021	503	281	551	452		
2004	2,498	1,816	719	98	51	119	456	373	
3Q2005	2,558	1,679	517	135	32	53	196	462	284
Total 2003-3Q2005	9,377	6,303	2,257	736	364	723	1,104	835	284

Of the 6,303 U.S. exposure mesothelioma claims filed in 2003-3Q2005, at least 1,823 (29%) were filed in 2002 and prior against another defendant. It is likely that some of the 2,257 (36%) claims without a litigation date were also filed in the tort system prior to 2003. Claims initially filed prior to 2003 are presumably already included in the CBO's pending estimate and would be double-counted if added to the CBO's pending count. Only 2,223 (35%) were conclusively first filed in 2003 and subsequent. Even assuming that 100% of claims without a reported earliest litigation date were filed in 2003 and

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subsequent, the newly filed claims with Manville must be less than half of Dr. Peterson's assertion of 9,400 new mesothelioma claims.

All Diseases

TIMING DIFFERENCES. Similarly, in Section 4.1.1, Dr. Peterson states, *"Across all diseases, CBO ignores a quarter million new asbestos claims that have been filed since 2003."* When using Manville data to estimate the number of new claim filings, once again it is important to consider timing differences in claims filed with the Manville Trust versus other defendants.

Claims Filed Against the Manville Trust – All Diseases[11]

U.S. Exposure Only

Year Filed w/ Manville	Total U.S. & Non-U.S.	Sub-Total U.S. Only	Earliest Litigation Year (U.S. Only)						
			N/A	<=2000	2001	2002	2003	2004	2005
2003	92,214	88,372	17,024	28,958	13,164	25,039	4,187		
2004	13,753	12,742	4,221	1,420	731	1,781	3,085	1,496	8
3Q2005	14,657	13,567	3,245	2,416	391	1,566	2,182	2,616	1,151
Total 2003-3Q2005	120,624	114,681	24,490	32,794	14,286	28,386	9,454	4,112	1,159

Of the 114,681 claims filed in 2003-3Q2005, at least 75,466 (66%) were filed in 2002 and prior against another defendant. It is likely that many of the 24,490 (21%) claims without a litigation date were also filed in the tort system prior to 2003. Only 14,725 (13%) were conclusively first filed in 2003 and subsequent. Even assuming that 100% of claims without a reported earliest litigation date were filed in 2003 and subsequent, the newly filed claims with Manville must be less than 20% of Dr. Peterson's *"quarter million new asbestos claims that have been filed since 2003."*

[11] Excludes Category 0 (1995 TDP) and Level 0 (2002 TDP) claims.

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CONCLUSION

In conclusion, Dr. Peterson's testimony refers extensively to Tillinghast's projections of future Manville claims as *"helpful and disinterested alternatives"* that can be used to evaluate the CBO's forecasts. However, Dr. Peterson inappropriately attributes his assumptions regarding pending claims to Tillinghast.

Dr. Peterson's assumptions regarding pending claims at year-end 2005 appear overstated, since they reflect U.S. and non-U.S. claims filed from 2003-2005 with Manville. The non-U.S. claims should not be considered. Additionally, the majority of the U.S. claims were previously filed against other defendants, and therefore, are likely double-counted by Dr. Peterson.

Additionally, projections of claims expected to be filed in the near term appear overstated, given the recent scrutiny of nonmalignant claims from mass screening programs.

In Section 4.4, Dr. Peterson concludes that *"Under every Tillinghast scenario the S.852 fund would fail immediately."* Tillinghast has not evaluated the expected cash flows associated with S.852 and we present no conclusions regarding whether the Fund might sunset. However, we did feel that it was important to clarify the conclusions from the work we performed on behalf of the Manville Trust and to provide additional context for Dr. Peterson's testimony. We would welcome clarification of Dr. Peterson's assumptions if we have misinterpreted any of his statements.

Sincerely,

Jennifer L. Biggs

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JLB:klb

Enclosure

cc: Mark Lederer, CFO – The Manville Personal Injury Trust

Testimony of Laura Welch, MD

Medical Director, Center to Protect Workers Rights

On Asbestos Related Diseases and Senate Bill 852 and the Bates-White Analysis of Future Claims

Before the Senate Judiciary Committee

November 17, 2005

Chairman Specter, Senator Leahy, and members of the committee, thank you for the opportunity to appear before the committee to testify on asbestos-related diseases. I had the honor of testifying before this committee both in June 2003 and earlier this year on this important public health matter, and appreciate the chance to again assist in the development of legislation to establish a trust fund to compensate workers with these diseases.

The specific questions being addressed are raised by a recent report from Bates and White, LLC: *Analysis of S. 852 Fairness in Asbestos Injury Resolution (FAIR) Act.* . This report, prepared on behalf of the American Legislative Exchange Council (ALEC), sets forth a series of estimates on projected claims and costs of the proposed Asbestos Trust Fund that are significantly higher than other estimates prepared by other groups. The report's sponsors, including ALEC, have been strong advocates of very restrictive medical criteria bills that would bar many seriously ill asbestos disease victims from even bringing forward a claim for injury in the tort system. One of the key conclusions of this report is that compensating lung cancers among individuals with pleural scarring will cause the trust to fail. However, individuals who have lung cancer with pleural plaque *in combination with substantial occupational exposure* to asbestos must be compensated under this trust fund. These are asbestos-related lung cancers; the scientific literature is very clear on this. If current level of the trust is insufficient to compensate these individuals, we must increase the funding. Eliminating this group of workers from compensation under the trust would undermine the principles on which the trust is founded.

There are several problems with the Bates and White report I want to highlight:

- The population at risk used by Bates and White includes many individuals without exposure to asbestos, thus overstating the potential number of cancers eligible for compensation

- A great number of the individuals in the Bates and White population at risk who have had asbestos exposure are not eligible for compensation under S. 852, again overstating the potential number of cancers eligible for compensation
- The estimates of the prevalence of pleural disease in the occupationally exposed population too high, which leads to an overstatement of the number of cancers eligible.

By way of background, I am a physician with board certification in both Occupational and Environmental Medicine and Internal Medicine. I received my medical degree from the State University of New York at Stony Brook, and have held faculty positions at the Schools of Medicine at Albert Einstein, Yale, and George Washington Universities. I have extensive experience in diagnosis and treatment of asbestos-related diseases. I have been in occupational medicine practice for more than 20 years, and a substantial part of my practice has always been devoted to examination of workers exposed to asbestos.

In addition, I have many years of experience in medical surveillance programs for asbestos. Since 1987, I have been the medical advisor to the Sheet Metal Occupational Health Institute Trust (SMOHIT), a joint labor-management organization within the sheet metal industry established to provide medical examinations for sheet metal workers exposed to asbestos and other respiratory hazards. To date, SMOHIT has provided medical examinations for more than 30,000 workers. It is the largest epidemiological database of asbestos-exposed workers in the country. I also developed similar medical screening programs for the Laborers National Health and Safety Fund and other construction trades, in conjunction with the Occupational Health Foundation. I currently serve as medical director for a Department of Energy-funded medical screening program to provide medical examinations for former construction workers at a number of former atomic weapons production facilities. In each of these programs, I have designed programs to detect asbestos-related disease, and designed algorithms for the examining physicians to use in interpretation of the results. In addition, I have been active in efforts to improve validity and reliability of x-ray reading to detect asbestos related disease in the United States; this work included publication of a paper on variability between readers' classification of x-rays using the International Labor Organization Guide to Classification of Pneumoconiosis, based on an analysis of results from these screening programs.

I currently am medical director at The Center to Protect Workers Rights, a research institute devoted to improving health and safety in the construction industry.

However, before I address specific criticisms of the Bates and White report, let me re-state the rationale for the trust fund, the process that lead to the development of the medical criteria, and some key scientific facts about asbestos and cancer.

- All parties involved in development of the bill agreed that the fund's goal is to provide compensation to those who are sick from asbestos-related diseases.

- Individuals who have lung cancer with pleural plaque and substantial occupational exposure to asbestos must be compensated under this trust fund. These are asbestos-related cancers, and those individuals who develop these cancers are certainly sick. If the current funding is insufficient to compensate these individuals it should be increased.

- The medical criteria that were originally agreed upon by the Judiciary Committee in 2003 in conjunction with S. 1125 were developed carefully, in a bipartisan manner, and were based on sound science. The criteria took into account the uncertainty inherent in determining causation for each individual case. The criteria included compromises by all parties that limit compensation to a subset of all the cases of pleural plaque, asbestosis, lung cancer and other cancers that occur in asbestos-exposed groups. In my view those criteria were conservative. This year, during the mark-up on the current bill, S. 852, those criteria were changed to be more restrictive, in particular eliminating the category of lung cancers with significant asbestos exposure, but no x-ray changes. This change is contrary to the scientific evidence and will exclude many victims of asbestos related lung cancers from being compensated. The cancers now excluded are asbestos-related cancers, and those individuals who develop these cancers are also sick. Again, if the current funding is insufficient to compensate these individuals, it should be increased.

- The compensation set for each level under the fund takes into account the uncertainty in determining causation for each individual case of cancer. For example, the values for lung cancer compensation are 25-50% of those for mesothelioma not because a death from lung cancer is worth less than a death from mesothelioma, but because there is more uncertainty in the causation of each lung cancer than for mesothelioma.

Specific comments on Bates and White report: *Analysis of S. 852 Fairness in Asbestos Injury Resolution (FAIR) Act.*

(1) Overestimation of the population eligible under S. 852:

The Bates and White estimate of the number of projected claims among people with lung and other cancers occupationally exposed to asbestos is much higher than other estimates developed for this legislation by Goldman Sachs, the Congressional Budget Office, and others. This difference arises because the Bates and White estimate of the population exposed to asbestos is larger than previous ones derived from William Nicholson's estimates in his 1982 publication.[1] This is so because their approximation assumes the entire exposed population qualifies for compensation under the fund, and because this

[1] Nicholson, Dr. Selikoff and Dr Perkel used available information on exposure to asbestos, knowledge about patterns of asbestos related disease among occupations, and extensive information on employment in these occupations to estimate the number of persons occupationally exposed to asbestos. Dr. Nicholson's estimates have been used repeatedly as part of the basis for projecting asbestos related disease in future years. Nicholson WJ, Perkel G, Selikoff IJ. Occupational Exposure To Asbestos: Population At Risk And Projected Mortality--1980-2030. Am J Ind Med. 1982;3(3):259-311.)

estimate assumes that everyone with a cancer in this population will file a claim. There may be many workers who develop asbestos-related lung cancer or other cancer as defined by S. 852, but I cannot accept Bates and White's estimate of how many that will be.

In his answer to Senator Specter's questions, Mr. Bates described that his population at risk included the 283 occupations in 142 industries classified as having potential asbestos exposure in the Cocco and Dosemeci analysis [2], supplemented by some additional exposure information available to Bates and White. The list of occupations and industries used by Cocco and Dosemeci is a list of jobs with *potential* exposure to asbestos, but we cannot and should not assume that every worker in every one of those jobs had such exposure. For example, Cocco and Dosemeci consider all machine operators and mechanics to have potential exposure to asbestos; some machine operators or mechanics may have worked in plants with friable asbestos in place, worked in asbestos manufacturing facilities, or otherwise have had exposure to asbestos; many others would not have had occupational exposure. Occupations with a lower likelihood of exposure are included in the Bates and White model, such as architects, foresters, cooks, barbers and manicurists. S. 852 will provide compensation to specific claimants exposed to asbestos, not to every person who ever worked in an occupation with potential exposure to asbestos.

S. 852 requires that claimants meet several criteria before being compensated, and the criteria differ for each level of disease and compensation. Levels II and higher (except for mesothelioma) all require, at a minimum, five years of substantial occupational exposure, defined in the bill as follows:

The term 'substantial occupational exposure' means employment in an industry and an occupation where for a substantial portion of a normal work year for that occupation, the claimant--

> *(i) handled raw asbestos fibers;*
> *(ii) fabricated asbestos-containing products so that the claimant in the fabrication process was exposed to raw asbestos fibers;*
> *(iii) altered, repaired, or otherwise worked with an asbestos-containing product such that the claimant was exposed on a regular basis to asbestos fibers; or*
> *(iv) worked in close proximity to other workers engaged in the activities described under clause (i), (ii), or (iii), such that the claimant was exposed on a regular basis to asbestos fibers.*

In addition to documentation of substantial occupational exposure, the claimant must provide supporting medical documentation, such as a written opinion by the examining or diagnosing physician that (1) establishes asbestos exposure as a substantial contributing

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[2] Drs. Cocco and Comeseci created a job-exposure matrix to assess potential asbestos exposure in all US occupations as of 1980. They did not estimate the number of workers in these occupations, and their methods of identifying the occupations differed significantly from the method of Dr. Nicholson. (Cocco P, Dosemeci M. Peritoneal Cancer And Occupational Exposure To Asbestos: Results From The Application Of A Job-Exposure Matrix. Am J Ind Med. 1999 Jan;35(1):9-14)

factor in causing the pulmonary condition in question; and (2) excludes other more likely causes of a pulmonary condition when that condition is asbestosis. By ignoring these requirements of S. 852, Bates and White have overstated the population eligible for compensation.

It can not be stated too strongly that all workers exposed to asbestos have a risk of asbestos-related disease, as Dr. Nicholson clearly shows. Today, we are not talking about risk for asbestos-related disease, but compensation for asbestos-related diseases according to specific requirements and criteria *as set forth in S. 852*. As noted in the introduction, many workers with serious asbestos-related disease are not eligible for compensation under this bill, due to changes in the medical criteria that are contrary to the scientific evidence.

I agree with the assessment from Bates and White that asbestos exposure has been identified in many other occupations in addition to those identified in Dr. Nicholson's report, and that Dr. Nicholson did not include all workers in all exposed occupations and industries in his estimates. I also agree that the potential number of individuals with lung cancers and other cancers eligible for compensation under this bill is large. However, the Bates and White estimates push the limits of the available information to the highest end of that potential population and substantially overstate the cost to the fund. I am not saying Dr. Nicholson's estimates include all workers exposed to asbestos, or all cancers caused by asbestos exposure. For the purpose of S. 852, it is less important how many workers were exposed to asbestos than how many workers will meet the medical criteria set forth in the bill and, in the final analysis, file a claim. All estimates of this latter number have a great deal of uncertainty to them, as highlighted by the Congressional Budget Office (CBO) in its cost estimate on S. 852. However, the Bates and White population exposed estimate includes millions of workers who were or may have been exposed to asbestos but who would not likely be eligible for compensation under S. 852.

(2) Overestimation of the population eligible for Level VI, VII, and VIII:

The Bates report substantially errs since it assumes that all individuals in the exposed population are eligible for compensation for lung cancer if they have pleural disease. The report also ignores the requirement for a specific number of weighted years of substantial occupational exposure for Level VII.

Weighted exposure is determined by adjusting the number of years required in any specific occupation to account for different intensities of exposure in that occupation. To being with, *substantial occupational exposure* means that each year that a claimant's primary occupation, during a substantial portion of a normal work year for that occupation, involved working in areas immediate to where asbestos-containing products were being installed, repaired, or removed under circumstances that involved regular airborne emissions of asbestos fibers, counts as one year of substantial occupational exposure. *Substantial occupational exposure* is adjusted for occupations that had heavy or very heavy exposure as follows: *heavy exposure*: Each year that a claimant's primary occupation involved the direct installation, repair, or removal of asbestos-containing

products counts as 2 years of substantial occupational exposure; *very heavy exposure*: means that for each year that a claimant's primary occupation, was in primary asbestos manufacturing, a World War II shipyard, or the asbestos insulation trades counts as 4 years of substantial occupational exposure.

In addition to the intensity of exposure, the weighting takes into account reduction in asbestos exposure over time. Each year of exposure that occurred before 1976 is counted at its full value, each year from 1976 to 1986 is counted as 1/2 of its value, and years after 1986 are counted as 1/10 of its value

This concept of weighted years is then applied to each Level as follows:

- For Level VI, primary colorectal, laryngeal, esophageal, pharyngeal, or stomach with bilateral asbestos related disease, a claimant must have evidence of **15 or more weighted years** of substantial occupational exposure to asbestos. In addition, these cases are also sent for individual review to determine compensability.
- For Level VII, lung cancer with pleural disease, a claimant must have evidence of **12 or more weighted years** of substantial occupational exposure to asbestos.
- For Level VIII, lung cancer with asbestosis, a claimant must have evidence of either **8 or 10 or more weighted years** of substantial occupational exposure to asbestos, depending on the severity of the asbestosis.

Bates and White assume that a barber who started work in 1970 has the same risk of asbestos related lung cancer or other cancer as an insulator who worked in a shipyard during World War II, and both have the same eligibility under S. 852 . Clearly this is not the case.

(3) Overestimation of the prevalence of pleural disease in eligible population

Although I think I have made it clear that S. 852 will not compensate all asbestos-exposed workers with pleural disease, I still want to address the estimates in the Bates and White report on the prevalence of pleural disease in eligible population. The report estimates the number of lung cancers with pleural disease (Level VII) based in part on an estimate of the proportion of his eligible population with pleural scarring. The intensity of the exposure required for the eligible population determined the proportion of pleural disease expected. The tables supplied would allow an estimate of pleural disease ranging from 4% in the "low" exposure group to 50% among insulators, so clearly the overall mean rate of pleural disease will depend on what proportion of the eligible population is drawn from each group. As the estimated prevalence of pleural disease increases, the number of eligible workers must decrease; Bates and White does not do this as he increases his estimate of the prevalence of pleural disease from 10% to 25%. There is not sufficient data to estimate the prevalence of asbestos-related pleural disease in the Bates and White "population at risk."

I have been involved with screening sheet metal workers for asbestos related disease since 1986. Over time, I have seen a decline in the proportion of participants who have asbestos-related disease. Those sheet metal workers first exposed after 1970 have lower rates of pleural disease than those exposed in prior years[3], an observation in keeping with the reductions in asbestos exposure through the 1970s and 1980s. The occupational studies cited by Bates and White describe prevalence of pleural disease found in screenings between 1965 and 1988. These estimates are likely to be higher than what we would see in current population-based data. Because of the wide range of estimates for prevalence of pleural disease, the variation among exposed groups, and potential changes over time, there is not sufficient data to estimate the overall prevalence of asbestos-related pleural disease in the Bates and White "population at risk." Such an estimate would require information on each occupation included in the population and a weighting of the estimate by the proportion of each occupation to be anything more than a guess.

(4) Uncertainty in the estimates

As stated earlier, the Bates-White estimates are significantly higher than other estimates on projected claims and costs for an asbestos trust fund legislation prepared by CBO and experts on behalf of the insurance industry, defendants and trial lawyers. The main reasons for these differences appear to be incorrect assumptions about the size of the eligible population and then also about the level of claims filing in a new administrative system.

There is uncertainty about the number of claims that may be filed under an asbestos trust fund and the funding that will be needed to compensate individuals suffering from asbestos-related diseases. The AFL-CIO and its Building and Construction Trades Department have had and continue to have concerns that the level of funding will be sufficient, particularly in the early years when the number of claims will be the greatest. The original legislation had provided for contingent funding from defendants and insurers if needed. But the present legislation instead provides for a return to the tort system in the event that funding is inadequate. In my view, it would be far preferable for the bill to include a mechanism to ensure that adequate funding was available to compensate all eligible claims. It is in no one's interest, particularly for claimants, for the trust fund to be underfunded and fail. But at a minimum the return to the tort system in the current bill must be maintained so that victims do not bear the risk of uncertainty and possible underfunding of the legislation.

(5) It is essential to retain compensation of Level VI and Level VII under the Asbestos Trust Fund

The Bates-White Report focuses much of its analysis on the cost of compensation of victims with lung cancer and pleural disease (Level VII) and those with "other cancers"

[3] Because of the long latency now found for non-malignant asbestos related disease (40-45 years in a recent report) we will not know the full prevalence of this disease in populations exposed after 1970 until at least 2015)

including gastrointestinal, esophageal and laryngeal cancers (Level VI). The thrust of the Bates report is that these asbestos related diseases are not being compensated in the current tort system, but they would be compensated in the new asbestos trust fund. While not explicitly stated, the report implies that these asbestos related diseases should not be compensated. Indeed, the report's sponsors, including ALEC, have been strong advocates of very restrictive medical criteria bills that would bar many seriously ill asbestos disease victims from even bringing forward a claim for injury in the tort system.

It is important to point out that asbestos-related lung cancers with pleural disease and "other" asbestos-related cancers are being compensated in the current system. Indeed all of the asbestos bankruptcy trusts that have been established to compensate victims for these diseases, and for most of these trusts, the criteria are not as stringent as those in S. 852.
These diseases are being compensated in the current system and are eligible under S. 852 because the scientific evidence establishes that significant exposure to asbestos greatly increases the risk of lung cancers and other cancers. These findings were established through numerous scientific studies which were utilized by Dr. William Nicholson in his original estimates of future asbestos-related cancers. These findings – that asbestos exposure significantly increases the risk of lung cancer and other cancers – have also been endorsed by government scientific and regulatory agencies.

Recent epidemiological studies of asbestos-exposed workers conducted by Dr. Mark Cullen of the Yale School of Medicine and other researchers have reinforced these earlier findings.[4] A large intervention study that examined and followed more than 3,000 heavily exposed asbestos workers found significant increased lung cancer risk. Controlling for smoking and other factors, Cullen found that both increased years of exposure and pleural disease were strong independent predictors for the development of lung cancer. The increased risk of lung cancer was similar in workers with pleural disease and workers with asbestosis, and those workers with more than 10 years of asbestos exposure. A recently published paper, which examined the incidence of colo-rectal cancer in this same group of asbestos-exposed workers, found that the risk of such cancers was significantly increased among those workers with pleural disease or asbestosis [5].

As I stated at the outset of my testimony, one of the underlying rationales behind the asbestos trust fund legislation was that the current system historically has not equitably compensated victims of asbestos related disease. The goal was to create a system that compensated individuals who were sick from asbestos-related disease and not compensate individuals who were not sick or not impaired. To that end, medical criteria were agreed to that provided no monetary compensation to those individuals with non-

[4] Cullen MR, Barnett MJ, Balmes JR, Cartmel B, Redlich CA, Brodkin CA, Barnhart S, Rosenstock L, Goodman GE, Hammar SP, Thornquist MD, Omenn GS. Predictors of lung cancer among asbestos-exposed men in the {beta}-carotene and retinol efficacy trial. Am J Epidemiol. 2005 Feb 1;161(3):260-70..
[5] Aliyu OA, Cullen MR, Barnett MJ, Balmes JR, Cartmel B, Redlich CA, Brodkin CA, Barnhart S, Rosenstock L, Israel L, Goodman GE, Thornquist MD, Omenn GS. Evidence for excess colorectal cancer incidence among asbestos-exposed men in the Beta-Carotene and Retinol Efficacy Trial. Am J Epidemiol. 2005 Nov 1;162(9):868-78. Epub 2005 Sep 21.

malignant asbestos-related diseases, but with no impairment. The medical criteria and awards focused on compensating individuals with the most serious asbestos-related diseases. The Bates-White analysis incorrectly objects to this basic premise of the legislation and suggests that in addition to eliminating monetary compensation for those individuals without impairment, there should be no compensation for victims with clear asbestos-related cancers. This is unacceptable and contravenes the basic foundation on which the fund is established.

Conclusion:

My analysis of the Bates and White estimates of claims finds the assumptions used result in a large over-estimate of the claims and costs for S. 852. As I have described, a great number of the individuals in the population at risk as defined by Bates and White are not eligible for compensation under S. 852. Many of these workers may be at risk for asbestos-related disease, but not all asbestos-related disease is eligible for compensation from this fund. The estimate of claims is also inflated by the assumption that 100% of individuals with cancer in his population at risk will file claims under S. 852.

Many Americans will die of asbestos-related cancer over the next 25 years. Even though exposure to asbestos has been reduced due to product substitution and exposure controls, exposures over past decades will continue to cause lung cancer, mesothelioma, and other cancers well into this century. By proposing S. 852, the Senate Judiciary Committee has acknowledged this legacy of disease. There is a good deal of uncertainty in any estimate of the number of these cancers that will end up as a claim under S. 852, and the fund needs to take this uncertainty into account. The Bates and White analysis provides nothing useful in this regard.

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