Reserving for Runoff Operations—A Real Life Claims Specific Methodology for Reserving a Workers Compensation Runoff Entity

James B. Kahn, FCAS, MAAA

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ABSTRACT:

The paper takes the reader through a real life example of an entity in runoff. In some instances, certain calculations and data examples have been amended from their original forms for the purposes of simplicity and demonstration.

The runoff operation's reserves are predominately those of Florida Workers Compensation (WC) self-insured funds. WC has its own unique properties, which need to be considered when reserving in a runoff environment.

Two observations in particular have been seen within the data: (1) occasional spikes in the Workers Compensation data as a result of settlement activity, (2) extraordinary ALAE costs incurred during the years following the 1994 Tort Reforms. The changes to both the type of remaining claimants as well as the Workers Compensation environment may produce distortions to loss development triangles using so called "traditional" reserving methodologies.

APPROACH:

When a limited number of open claims remain, a claims specific model could be set up whereby scenario testing can be performed on data segments to reserve to an "ultimate" loss reserve amount.

Interaction with a company's claims department will be essential in both the setup and application of the Workers Compensation model. The claims unit can give input as to the state of the market for the lines of business, law changes, and perception of future settlement activity. Eventually, the individual claim model will need to be audited, with integral help from a company's claims department.

Model scenarios here could include differing medical escalation percentages, longevity of claimants, or inuring reinsurance arrangements (and tracking exposure for recovery likelihood of carriers rated below A-).

ALAE

The ALAE distortion in the data caused by the 1994 Florida Tort Reforms can be overcome with modifications to the same claims specific model. Solutions may involve applying ALAE caps or taking average yearly payments for typical years to apply to future periods.

BIOGRAPHY:

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* * * *

To my friends across the street who I wasn't given the chance to say goodbye to on September 11, 2001, thank you for putting my day-to-day struggles into a well-needed perspective.

I. INTRODUCTION

In this example, a run-off company (no business written since 1997) has reserves, which are predominately those of primary Workers Compensation in the State of Florida (for self-insured funds). The majority of the data shown is actual data for an entity hereafter referred to under the fictional name "ABC Insurance Company" or "ABC" or "the Company" (not to be confused with any potential entity bearing the letters "ABC" in any part of their name). Whereas it should be understood that many of the conclusions reached and methodologies used herein have been derived using our anecdotal evidence, the readers should feel more than free to amend any or all of the methodologies contained herein for their own particular situations. In some instances, certain calculations and data examples have been amended from their original forms for the purposes of simplicity and demonstration.

We will look to address some observations seen within this data: (1) occasional spikes in the Workers Compensation data as a result of settlement activity, (2) extraordinary ALAE costs following the tort reforms of 1994.

In many cases, the most difficult projection work for an actuary occurs when business for a current segment is different from historical data for the same segment. For a runoff workers compensation writer, over time, we should be left with only claims which will not take an offered settlement; and as such, will be subject to parameter risks such as tort reforms and inflation. The fact that a body of claims should "migrate" over time into a more severely injured population does not necessarily mean that historical data as of the same maturity is different than the current data. It is possible that changes in injury mix of open claims as an accident year matures could be consistent from accident year to accident year.

This paper takes the approach of setting ultimate reserves for both the "likely to settle" and "unlikely to settle" groups of claimants as determined by the company claims department. The differences in these bodies of claims will need to be reflected in determining final IBNR amounts.

Additionally, this paper will show why exceptions may occur to many normally sound schools of thought and potentially lead to counter-intuitive conclusions if one does not consider the particulars of the given runoff situation.

This paper will project ultimate IBNR reserves using a "non-traditional" claims specific methodology, and attempt to explain the conditions under which this method is an appropriate approach. Hopefully, the understanding of these techniques will have merit for all Workers Compensation states as well as for ongoing situations (with appropriate modifications).

II. WORKERS COMPENSATION LOSS RESERVING

A. Background

1. Workers Compensation Characteristics

Workers Compensation losses have their own unique properties:

- Most of the eligible payments are set by State law, which could vary significantly from state to state for such items as maximum and minimum payments, rulings for manifestation of claims, statute of limitation requirements, and integration of benefits. All contain some form of payments for indemnity (representing payment for lost wages) and medical costs associated with the injuries themselves.
- After the first couple of years, there should be very little, if any, smaller "nuisance" type claims remaining open. Occasionally, claimants could attempt to reopen earlier claims, even those with very little merit.
- Because of stringent reporting statutes in most states, very few, if any, IBNR claims will be reported going forward. A company in runoff will very likely be in a position to fight newly reported claims on the basis of Statute of Limitations filing requirements. As ABC's data is mostly construction related risks, there should be virtually no exposure to asbestosis, latent injuries or occupational disease, which may have late reporting patterns and claims could potentially be accepted as a result of a late manifestation of injury.
- Depending on a company's case reserving practices, loss reserves may be carried at implicit or explicit discounted values.
- Settlement "spikes" may be seen periodically throughout the paid loss data, particularly with new chief claims officers or the assignment of a new third party administrator. These settlements distort ultimate loss estimates using the traditional paid loss development methods, especially when claims are settled at an amount below the reported loss amount on the company's financial ledgers. It is easy to see how additional volatility could be added to the latest diagonal in such situations.
- Occasionally, claims handling operations may reach discount arrangements with medical providers, whereby these providers will perform services associated with these claims for a reduced cost.
- The possibility exists that claims, which were previously closed, may still have remaining exposure. A company should consider the possibility of "reopening" of closed claims.
- Outside sources of recovery (reinsurance, second injury fund, etc.) need to be considered in determining what the final ultimate reserve would be.
- Workers Compensation losses have substantial early payments (our data shows about four years beyond the initial accident date) as claimants have initial hospitalizations, surgeries and treatments. Over the near term, yearly costs and utilization may very well decrease after the initial injury or surgery date until such time when follow-up surgeries or additional therapy may become necessary due to the aging process.

A runoff situation will have its own particular nuances:

- Over time many of the remaining claimants will have suffered permanent total injuries, leading to claims oftentimes being reserved at a lower "settlement" value, not necessarily at a 'true' ultimate value. This would include those claimants, who will never end up accepting a settlement and will have their ultimate values increase over time from the held settlement value. Factors influencing settlement are discussed later.
- A runoff company will most likely be at a point in the timeline beyond the initial high cost of hospitalization and surgeries (about four years after the initial accident date in this case).
- Claimants **may** pursue claims involving a runoff company less aggressively than they would with an ongoing active writer (the "deep pockets" theory).

Workers Compensation statutes are under a constant state of change. It is therefore critical for recent developments and trends to be understood prior to any projections of ultimate losses. To arrive at sensible projections, both actuaries and claims personnel should communicate their knowledge of relevant state changes and trends to each other as often as possible.

On a related note, there have been recent discussions concerning Medicare efforts to take credit for portions of a medical settlement paid to claimants when the bills submitted are for medical services provided after the Workers Compensation settlement was struck. Put differently, if an injured worker has already accepted a medical settlement, and subsequently bills Medicare for treatment, it is quite possible that Medicare will take the viewpoint that this is "double dipping" of benefits, and should not be provided for. It is unclear at this point how this should be handled from a company standpoint and several questions still remain as to logistics of any additional company exposure (Who would pay if the claimant has died? Can they recover attorney fees? In Florida, will the SDTF pay for closed cases? Will it be up to an insurance carrier to contribute in such cases? What do the settlement documents provide? etc.). There is a Medicare signoff process prior to the settlement that will enable a company to confirm upfront the amount of a Medicare credit. At this point, we have not reflected any potential for Medicare in projections of ultimate, but settlement language can provide adequate protection from possible reopening potential.

2. Workers Compensation Industry Reserving Practices and Philosophies

a. General Overview

There are probably almost as many company Workers Compensation reserving philosophies and styles as there are companies. For an actuary to arrive at proper assessments of reserve or reserve adequacy trends, it is most crucial to understand the internal philosophies and definitions (not everyone will define closed or reopened claims the same way especially in regard to closed without payment claims).

Many companies consider forms of discounting (explicit or implicit) in setting case reserves; some don't consider discounting at all, and some may only discount the so-called "catastrophic" type claims. It is a widely held belief that most Workers Compensation carriers apply some form of discounting, and the unwinding of this discount over time is, in fact, reflected in Industry loss development patterns.

Some companies set reserves to consider the expected lifetime of a claimant using a standard mortality table, others consider an impaired worker mortality table, and still others treat all claimants as if they'll live to a common age such as 90 or 85 years of age (sometimes referred to as the "Rule of 90" or "Rule of 85" philosophies).

For accounting purposes, some entities implicitly reflect subrogation recoverables whereas others may explicitly state the recoverable amounts separately. Florida companies may or may not handle recoveries from the Florida Special Disability Trust Fund (or a Second Injury Fund in other states) in a similar fashion. Companies may have different philosophies for reserving to the reinsurance retentions, or to various reinsurance layers.

b. Settlement Provision Background

This is probably a good time to introduce the concept of "settlement value" reserving as it may pertain to a given company's case reserving philosophy. It is an important idea in our development of the claims-specific model. Per the ABC claims department, it is Industry practice to employ some form of "settlement value" reserving in Workers Compensation (as well as in liability lines of insurance). As such, Industry loss development patterns should already reflect this practice to some degree. As Workers Compensation payments may take place over several years, claims departments could easily establish initial case reserve amounts at "settlement value" and subsequently refine these estimates over the course of many years. The term "ultimate value" reserve will hereby be defined to mean the claims department's estimate of ultimate reserve using expected payments and mortality assumptions, prior to any adjustments including discounting.

ABC case reserves, for the remaining claimants, are held at a specified percentage below the discounted "ultimate value" reserve. In negotiating with claimants or their outside attorneys, it has been the historical practice for ABC to get settlements below the "settlement value" reserves. Historically, ABC has been successful at settling about 70% of the held discounted reserve, though as of late, this figure has begun to approach 85-90% of the held discounted amount.

Whether or not a claimant accepts a settlement appears to be more a function of the claimants themselves than a function of the severity of injury types. Analogies can be drawn to utility theory (there are probably high enough offers whereby almost anyone would accept a settlement) or whether or not a lottery winner would be willing to accept a lump sum payment or a steady stream of future payments (a big difference discussed later would be the Workers Compensation loss of future payments upon early death). It is largely up to a company's internal claims

department or Third Party Administrator to understand what external or internal factors may lead to whether or not claimants ultimately accept a settlement.

Why would someone with a minor injury not be willing to accept a settlement? Some may view having an open Workers Compensation case as an "insurance policy" against potential unforeseen circumstances (latent disease) or injury re-aggravation. As a result, there are claimants, some of which have small or zero reserves outstanding, that the ABC claims department has deemed "unlikely to settle" following discussions with the claimant and/or a claimant's attorney.

On the other hand, some of the more seriously injured are willing to consider settlement offers. A claimant who has dependant children may be willing to take a settlement below projected medical costs rather than take a chance of leaving the lower fatality benefits to their dependants upon an untimely death. Other very seriously injured workers, those without a spouse or dependant children, may not have a reason for taking a settlement (no one to inherit future streams of payments or death benefit).

Occasionally, a claimant who had previously rejected settlement offers may suddenly want to change course. A few reasons are sometimes cited: (1) the claimant may have recently been diagnosed with a limited lifetime where they'll have to reassess the differences of fatality benefits versus settlement offers, (2) outside debt obligations for non-medical related costs, (3) general state of the economy, which may lead to more cash settlements when the economy is not performing well, and (4) possible influence of outside sources, which could include, among others, claimant's attorneys.

In Florida prior to 10/1/2001, a judge needed to approve all outstanding settlements, and would occasionally not allow some if they thought the seriously injured claimant was being taken advantage of. Effective 10/1/2001, a judge's approval is no longer needed in the State of Florida for settlement of newly tendered settlement offers, if the claimant is represented by an attorney.

Since claimants 62 years of age or older have a potential Medicare offset to their benefits through the current Social Security plan, agreeing to settle their Workers Compensation claim would void the additional qualifying benefits. Since older claimants have fewer remaining years to live, setting a settlement figure much more than an additional couple of years of current payments could be economically risky to an insurance company. As a result, ABC does not focus on settlements with older claimants, preferring to work toward settling those claimants between the ages of 30 and 60 years of age, who are more likely to settle where the present value of the settlement is a much more attractive savings.

Under most Workers Compensation statutes, settlement is not allowed until a condition of Maximum Medical Improvement (MMI) has been reached as determined by a physician. (Note: As of 10/1/2001, in Florida, the

claimant does not need to have a condition of MMI to settle. The examples shown within the exhibits are prior to the 10/1/2001 change in statute).

It may certainly be worthwhile for ABC to settle claims already beyond the reinsurance retention. This is required for ABC to eliminate uncertainty, such as the risk either insolvency of reinsurance carriers or the claimants exceeding reinsurance maximums. Discussions would most likely involve all applicable reinsurers in such a case, including the SDTF or 2nd Injury Fund.

3. 1994 Florida Tort Reforms

a. Background

More information concerning the 1994 Florida tort reforms and the Special Disability Trust Fund is given in Appendix A. A couple points should be understood to see why various assumptions are made within the claims specific model.

ALAE Impact - Beginning with the 1994 Reforms, *Temporary Total* (TT) benefits were reduced from a maximum duration of 260 months to 104 weeks. When the 104 weeks of time expired for new claims on 1/1/1996, a great number of filings were made to extend benefits, or push for more reclassifications into the greater benefits of Permanent Total categories. The initial push resulted in large legal costs generated from calendar years 1996 and 1997. The costs subsequently subsided, but not after seeing a two-year spike in paid allocated loss adjustment expenses.

Allowance of Indemnity Settlements - Prior to 1994, entities were allowed to settle indemnity (lost wages) portions of a claim, but not medical loss or loss adjustment expense. Beginning 1/1/1994, companies were allowed to settle the entire Workers Compensation claim, or any portion thereof (medical or lost wage) including claims open at 1/1/1994. As a result, there was a big Industry push to settle claims (or the medical portion only of claims) beginning in 1994.

As a company practice, ABC will no longer settle an indemnity portion of a Workers Compensation claim only. Claims which ABC currently classifies as "medical maintenance" claims are those which had the indemnity portion settled prior to the 1994 Tort Reforms. ABC still reserves the right to settle the indemnity portion of claims without settling the medical if it would so desire.

b. Special Disability Trust Fund (SDTF)

At this point, some background on the Florida Special Disability Trust Fund (SDTF) is necessary to better understand the Non Traditional Workers Compensation model for ABC (Florida's version of other states' "Second

Injury Funds"). The SDTF reimburses the employer when an employee suffers an injury, directly or indirectly, as a result of a previous disability or coupled with a previous medical condition, which has worsened due to the new injury. SDTF recoveries inure to the benefit of all additional reinsurance coverage.

The Florida SDTF operates on a pay-as-you-go basis whereby each Florida Workers Compensation writer contributes a percentage of current premium writings (~4.5% currently). In recent years, ABC has received more than $10 Million of SDTF recoveries per annum (net of reinsurance cessions).

The SDTF will pay for paid claims on a first come, first served basis. As additional payments are made on case reserves or development on known cases, additional papers (called SDF-2 forms) will need to be filed with the State. Currently, the time from request for reimbursement until recovery from the Fund is received is a little more than three years as recouping assessments have lagged behind payment of benefits.

B. Non-Traditional Methodology (The Introduction of the "Claims Specific" Model)

1. Categories of Claims and Definitions:

The following list applies to the various segments of the "Claims Specific" Workers Compensation model:

- ***As Reported*** – Loss reserves as displayed in the company's financial statements. These may be held at "settlement value" in the cases where it would apply.
- ***Ceded*** – Loss reserves, which will be ceded to reinsurance companies after recovery from SDTF.
- ***Closed Claims*** – Claims, which are no longer open and active. As a result, reserves will need to be taken down, or in the cases where they're open for an SDTF recovery only, the remaining recovery will need to be booked when received.
- ***Coverage B/Coverage Issues*** – Claims pertaining to Employers Liability (Section 1B) or other miscellaneous items where required payment may be in question based on policy language.
- ***Direct*** – Liability reserve amount to the Company before any additional recoveries
- ***Likely Exposure @X%*** - Percentage of "As Reported" reserves, which the likely to settle claims will eventually settle for (approximately X% of currently held direct reserves on this segment).
- ***Likely to Settle*** – Claims deemed by management as being *likely* to accept a tendered settlement offer within the timeframe being considered.
- ***Maximum Exposure*** – Scenario under which no settlements occur. Closed claims, resolved claims, Coverage B/Coverage Issues, and Unlikely to Settle scenarios are at maximum exposure amount under all percentages of the likely to settle scenarios.
- ***Maximum Reinsurer Reserve Claim*** – Claims, which are already being carried at an amount greater than the specific reinsurer's retention amount after SDTF recoveries. These claims may or may not be greater than the reinsurer's coverage limit.

- ***Medical Maintenance*** – Claims where the indemnity is settled and the medical portion remains open. For ABC, this will pertain to claims Prior to the 1994 Florida Tort Reforms.

- ***Net*** – Amount retained by the company after recoveries from SDTF and reinsurance companies.

- ***Not at MMI*** – Claimant hasn't reached maximum medical impairment as determined by a doctor and is therefore unable to settle (as of 10/1/2001, in Florida, the claimant does not need to have a condition of MMI to settle).

- ***Other*** – Claims which are not classified as Closed, Coverage B/Coverage Issues, Maximum Reinsurer Reserve, Medical Maintenance, Not MMI, PT, PT Pending, Resolved, or Special Disability Accepted. The majority of these claimants are those who have gone back to work. These would include those falling under Permanent Partial (PP) and Temporary Total (TT) classifications.

- ***PT*** – Claims, which have been accepted under the Workers Compensation statute as being Permanent Total.

- ***PT Pending*** – Claims where a petition for Benefits has been filed for Permanent Total classification.

- ***Resolved Claims*** – Claims, which have not been formally settled, but which are in the process of settling. These can be further categorized into (1) claims which remain open for recovery only, (2) claims where a settlement has been reached, but the check has not been issued, (3) claims where a settlement order has been prepared and is being presented to a Judge for approval, (4) claims where a judge has approved a settlement, and the claim is open to pay final medical and legal bills and will close or transfer to the SDTF. The majority of claims in this category are those described in item (4). Changes to settlements involving judges were noted in a previous section.

- ***SDF-Reqstd*** – Paid loss amounts which have been filed with the SDTF, approved, and thus due the company. These are not reported in company financial statements as reported losses recoveries.

- ***SDF-on Res*** – Reserve and IBNR amounts pertaining to claims, which have already had paid losses accepted by the SDTF. Recovery for these reserves will need to be filed with the State following additional payments on these claims. These are not reported in company financial statements as reported loss recoveries.

- ***Special Disability Accepted Claims*** – Claims which have been accepted by the Special Disability Trust Fund as being eligible for recovery because of a condition suffered by the claimant prior to his work related injury.

- ***Unlikely to Settle*** - Claims deemed by management as being *unlikely* to accept a tendered settlement offer within the timeframe being considered.

2. Background and Methodology

a. Need for Non-Traditional Method

The internal need for a non-traditional method arose after observing great calendar year differences between actual and expected loss emergence using the so-called traditional loss reserving methodologies (chain ladder, Bornhuetter-

Ferguson, etc.). Several factors, not previously seen in the historical data, have contributed to these differences: (1) the impact of reinsurance leveraging once active claims began to pierce the applicable retention and render historically observed cession percentages too low for given accident years, (2) the receipt of higher than historical SDTF recoveries now that enough "lag time" has passed on older claims, (3) a concerted effort by the Third Party Administrator (TPA) to settle more claims quicker than the historical pattern. The effort cited in item (3) will result in fewer outstanding cases per claims handler going forward, assuming an identical number of claims handlers.

Item (3) can lead to big spikes in paid loss development methods for some years, while having relatively little impact on incurred loss development methods in many cases. These spikes will create more of a distortion as the number of open claims begins to dwindle when settlements occur, and subsequently lead to reduced case reserves. A runoff entity, unlike an ongoing operation, will not reach a steady state of reserves where new claims enter the reserve base as older claims settle. This leads to a shift in the type of claims remaining open.

The following table shows the recent trend in claim closures for ABC:

ABC INSURANCE COMPANY SUMMARY OF CLOSED CLAIMS FROM 12/1/1996-12/1/2000

Evaluation Date	Total Open Claims	Closed from 12/1-12/1
12/1/1996	18,341	N/A
12/1/1997	8,719	9,622
12/1/1998	5,370	3,349
12/1/1999	4,274	1,096
12/1/2000	3,068	1,206

Open claims shown above include those claimants who have agreed to settle in principle. On the summary examples in Appendix C, these types of claimants are classified in the "resolved claims" category.

The ABC claims department estimates that by the end of 2002, there will be somewhere between 500 and 750 remaining claims, all of which can be considered "Unlikely to Settle". There will still be additional claims that have either agreed to settle, or which have open files while awaiting recovery from either a reinsurance company or the SDTF (resolved claims noted above).

The more difficult challenges for actuaries exist in cases where future patterns will differ from historical ones. Given that the future population of remaining claimants will be those who will not settle, we would expect future development to look different from the previous population (which was more similar to the "steady state" situation mentioned previously). The reserves for this group of claimants should ultimately exceed settlement value, whereas many of historical claimants accepted payments for reserves at some percentage of the settlement value.

Looking at data on a claim-by-claim basis could pose logistical difficulties for a large entity or an ongoing entity, which will still have significant "true" IBNR claims. However, as a runoff company handles fewer and fewer claims,

this procedure should become less cumbersome. At the end of 2002, this may become very little more than applying a maximum exposure procedure with appropriate modifications.

Traditional actuarial methods may be slow to recognize the change in claimant population, especially with a rapidly dwindling book such as ABC's. As mentioned earlier, this population is not necessarily different than those claimants historically seen at the same maturity. Additionally, the Industry development tail may be overstated for a runoff entity if claimants are less aggressive in their filing of claims than they would be for a "deep pockets" ongoing company.

Traditional aggregate grouping methodologies may also be slow to reflect leveraging of reinsurance cessions once a retention level is reached. It may also be slow to reflect future SDTF recovery now that the last two calendar years have produced significant increases in the amount of recovery received. As the claim database for a runoff entity becomes more manageable, the ability to look at these parameters on a case-by-case basis becomes a lot more appealing. With appropriate judgment, many of these difficulties can be overcome with a claims specific reserve model.

b. Development of Model

1) General Background

Because of reserves being held at "settlement value", claims that will not settle will need a lengthy procedure whereby payments will continually be made to a claimant until either death (for the claimant) or remarriage (widow's benefits). If no claimants ever accept a settlement, the exercise will reduce to projecting future payments multiplied by the number of remaining months to live. We will refer to this going forward as the "maximum exposure" example.

Because some claimants will, in fact, accept settlement offers, we will need to divide our data into the "likely to settle" and "unlikely to settle" categories as determined by the claims unit. For likely to settle claims, we can set reserves at a specified percentage of the carried reserves – perhaps somewhere around the targeted settlement amount (currently 80% as mentioned previously). Unlikely to settle claims will essentially need to be held at the "maximum exposure" reserve figures. Details as to the assumptions for each settlement possibility will be provided later. An adjustment is later performed outside the scope of the model to adjust for the possibilities that claimants deemed as "likely to settle" will in fact never settle and vice versa. In many cases, it is not implied that a claimant will never accept a settlement, just that they will not accept the current offer – an offer currently targeted at a specified percentage of the held reserve amount within the specified time frame.

In its most basic form, the "unlikely to settle" category of the claims projection model applies an average monthly payment amount (average yearly divided by 12) to the number of remaining months. This procedure is similar to

that proposed by Teng in his 2001 Call Paper. Any standard mortality table (in this case, the most recent State of Florida, "non-impaired" table) can be used to estimate the number of remaining months in a claimant's lifetime. Not using the "impaired" table could provide an element of conservatism if one is to believe that ABC's seriously injured claimants have a lower expected lifetime than the general population. Also, for simplicity, this model projects the claimant's lifetime as the number of remaining months without considering a likelihood distribution. If a claimant lives longer than the expected lifetime, the burden of additional cost may be the responsibility of reinsurance carriers, whereas a shorter lifetime may lead to lower ultimate values.

Projected payments are made separately for medical losses, indemnity (lost wage) losses, and allocated loss adjustment expense. Assumptions regarding these projections will be discussed in separate sections. Final ultimate reserve amounts based on these payments are then "netted down" to consider the impact of reinsurance cessions and SDTF recoveries.

Looking at data on a claim-by-claim basis also provides an excellent opportunity to audit the data, especially when performed in conjunction with a company's claims department. In the case of ABC's held reserves, a handful of adjustments were made to the data following the audit of claims within this model. It was discovered that a few of the medical maintenance claim files still had reserves being held for future indemnity payments. Additionally, there were still some reserves being held on a number of claim files that were already closed. The final scenarios have reflected what should be the true reserves on these claims. These corrections can best be observed on any of the attached "100% of reserves, likely to settle" scenarios (since the amounts are not equal to held amounts).

Summaries of the claims specific model are shown in Appendix C. Exhibits 1-5 show three effective groups of figures. The information at the far left of the page shows the ultimate reserve amounts as would be projected using the given assumptions for each scenario. The middle section shows the case reserves being reported in ABC's financial statements. The section on the far right of the page takes the difference between the two other sections. This would be the final IBNR. It should be understood that the "Direct" minus "SDF" minus "ceded" would be the amount "net" of recoveries from reinsurers or the SDTF. "SDF-Reqstd" represents SDTF recoverable amounts for paid losses already approved by the State of Florida, and due ABC. This differs from "SDF-on Res", which are reserves (case or IBNR) for these approved claims, which would be eligible for SDTF recovery once payment is made and SDF-2 forms are filed. The Descriptions of the claim categories seen in the rows on the far left were defined earlier.

2) Model Scenarios

As the number of open claims for ABC begins to dwindle, management will need to understand how to handle the ongoing 'parameter' risk associated with a loss sensitive model like the one produced. Rather than view one scenario as the "best" estimate of ultimate loss, it may make sense to run several different versions of the model, and consider applying likelihood weights to each. This is not too much different than the ultimate loss reserving process of applying various weights to different actuarial methods.

For likely to settle claims, ABC has chosen to show these claims settling at both 80% of the current reserve value (the current target and an amount closer to the historical figure) and 100% (an amount which would make sense if one believes that the population will have fewer claimants willing to accept 80% going forward).

Particulars of the escalating loss payments will be discussed in a later section. However, it should be noted that the model is able to handle the concept of escalating loss payments with the help of common reserving software. With minor adjustments, the model should be able to even handle escalation payments with different inflation/trend factors for different time periods.

3) Reinsurance Recovery Calculations

It is not at all difficult to calculate reinsurance recovery for each claimant after determination of the ultimate loss. In the case of ABC, ALAE cession arrangements are on a pro rata basis except for two Fund years pertaining to one fund. Such adjustments for the differences in ALAE arrangement can be easily handled for different reinsurance treaties.

Should any of ABC's reinsurers look to commute ongoing treaties, it would not be difficult to project a reasonable settlement using ultimate losses as determined by the claims specific model. Additionally, handling of previously commuted reinsurance arrangements on a claims basis may prove to be much easier to calculate than would a "traditional method" based on aggregate loss information. Any traditional cession analysis using aggregate data runs the risk of being too conservative in their projection of ultimates if there is a difficulty quantifying the leverage effect of reserves already at the maximum retention. Additionally, one may want to consider the likelihood of a claimant accepting a settlement (perhaps at an amount below the reinsurance retention) prior to any commutation discussions.

During the years 1995-1997, ABC had a Quota Share arrangement, whereby 75% of loss and ALAE was ceded after an inuring $1M maximum per claim. When losses exceed the $1M retention, expenses will be ceded on a pro rata basis. On the Appendix C summary exhibits, any cessions seen on losses, which are not at a "maximum reinsurance reserve" classification, pertain to this 1995-1997 Quota Share.

A handful of ABC's reinsurers have been declared insolvent. Cessions to these carriers have been removed from the cession calculations. If management would want to test cession scenarios should certain other reinsurance carriers become insolvent (even at future points in time), we could remove these carriers from ceded recovery calculations. For example, you could remove those carriers rated as "A-" or below by A.M.Best.

4) SDTF Recovery Calculations

SDTF recovery is calculated for each eligible claimant, inuring to the benefit of all other recoveries except for subrogation. For the 1995-1997 years, the phase-out by the State of Florida resulted in only a 50% recovery for SDTF claims. This arrangement has been handled for each applicable claimant. For a handful of other claimants, the State approved recovery amounts other than 50% or 100% for SDTF claims. Modifications for these different percentages are trivial. Future recoveries from the SDTF may need to be ceded back to the reinsurers (or occasionally even the SDTF itself in a subrogation situation). SDTF recoveries shown in the calculations are figures 'net' of reinsurance cessions.

5) Social Security Offsets

A 20% offset for Social Security has been applied to the indemnity reserves for the PT Pending and Not at MMI Unlikely to Settle Categories, since these types of claims would most likely qualify for Social Security recovery (if the claimant has worked enough quarters). Injured workers under the age of 62 may qualify for disability benefits under Social Security.

As current PT claimants should already qualify for Social Security Offset, historical indemnity losses should already be reflected net of Social Security offsets. The average calendar year payment calculations, used in the unlikely to settle situations, are based on historical paid information. As such, Permanent Total historical payments should already implicitly reflect payments net of Social Security offsets. As a result, only PT Pending claims and claims not at MMI would need adjustments (since they wouldn't be reflected in the historical data)

Although hard to quantify, other segments could have claimants qualify for Social Security, based mostly on age of claimant (62 and older). The omission of such an offset applies a little bit of conservatism to the model.

6) Medical Reserve Overrides

Sometimes the claims department can identify "problem" or unique claims where applying an average payment based on the general population would not give optimal results. In such cases, these claims have been entered using a claim "override" instead of the usual methodology (ultimate loss based on a maximum exposure method for "unlikely to settle" claimants).

The two overrides on "likely to settle claims" (one at reinsurance maximum and the other in SDTF) have not been entered at the claims department estimates, but instead at the likely to settle reserve percentage (either 80% or 100% depending upon scenario). These claims should be monitored in the event that they switch from likely to settle to unlikely to settle categories.

c. "Likely to Settle" Ultimate Reserve

The model applies a selected percentage of the current reserve amount to likely to settle claims (in our examples, we've shown both 80% and 100%).

Appendix C, Exhibit 9 shows historical closed reserve percentages based upon reserve values at both 12 and 24 months prior to closing. Since settlement value reserves may very well be substantially below where ultimate reserves should be booked if the claimant never accepts a settlement (and even well below where ABC would expect a claim to realistically settle for), it is occasionally ABC's practice to raise the reserve figures to an amount equal to or above the final agreed upon value just prior to the final agreement. As such, comparing where the percentage of the final payment amount will be to where the reserve values were at points 12 and 24 months prior to closing will prove to be a more useful relationship than would be comparing the relationship of final agreed upon settlement amount to the held reserves carried one day prior to settlement.

Historically, claimants have accepted settlements, which were approximately 70% of the held reserve value (the "settlement" value) at 12 and 24 months before closing. As of late, claimants are starting to require settlements that are 85-90% of the settlement value reserve. The underlying thought expectation is that over time there will be fewer and fewer claimants who would accept amounts as low as 70% of the settlement value as their final claim settlement – meaning that since there is no new business coming on, only the "harder to settle" claims remain at any point in time. In some ways, this pattern parallels the same logic behind the classic actuarial Salzmann principle that states, "The average size of unpaid claims generally increases with the age of development." We would expect the average percentage of settlement value, which would entice a claimant to settle their claim, to also increase over time. However, certain outside influences (such as state of the economy mentioned previously) could impact how these percentages apply in a given calendar year.

While ABC may consider using higher percentages of held reserve amounts to attract more settlements (hopefully, at a lower value than an "ultimate" reserve figure), an immediate increase would alert outsiders that higher percentage values are now being offered. Such a situation could very well result in an upward bias of future claim amounts after the claimants' bar figures out this change in handling philosophy. As such, ABC raises the settlement value amounts in a slow fashion.

Of note, losses already at the reinsurance retention may have a "reverse leveraging" effect if reduced by a likely to settle target percentage. Supposing the target settlement rate in our model uses 80% of reported direct reserves as the ultimate losses for likely to settle claims. If paid losses for a particular claim already exceed the retention, then the net reserve reduction would be 0%. On the other hand, some reserves could be reduced by the entire 20% amount (an example would be a case where no losses have been paid, but the reserve amount is equal to the retention). As a result, the selected **net** reserve percentage will end up being somewhere between 80% and 100% of held **net** reserves for the body of claims already at the maximum reinsurance retention. SDTF claims could have distortions for a couple reasons: (1) reverse leveraging for claims at maximum reinsurance retentions, and (2) the replacement of ceded losses by SDTF recoveries once amounts are received and thus placed on company financials.

d. "Unlikely to Settle" Ultimate Reserves

The unlikely to settle claims take the ALL year ***indemnity*** paid average monthly average and multiply this factor by the number of remaining months. Florida statute specifies set wage amounts to be applied to a claimant's lifetime, and thus should have very little fluctuation in these amounts. A supplemental benefit (to be discussed later and calculated on Appendix C, Exhibit 8) is applied in some cases to handle a cost of living increase, subject to certain caps. If one wanted to apply this procedure to states with unique Cost of Living Adjustment (COLA) procedures (like those used in Massachusetts for instance), appropriate modifications would need to be made.

The unlikely to settle claims take the latest four-year ***ALAE*** paid average monthly average and multiply this factor by the number of remaining months. The logic used in selecting a four-year average is given in the ALAE section.

For unlikely to settle claims, we've calculated the ***medical*** yearly payment amounts (differing by accident year) as shown on Appendix C, Exhibit 7. The model then takes these yearly calculations, and applies them to the remaining number of months (after dividing by twelve). The derivation of the yearly payments is detailed in the next section.

1) Medical Escalation

Unlike the indemnity portion of Workers Compensation claims, where payments should remain relatively steady for a claimant as payments are set by statute (usually as a percentage of the claimant's salary or statewide average weekly wage), medical payments have many outside factors, which add volatility to the reserving process. Significant volatility exists for medical payments depending on number of years from accident date (whereas indemnity payments should remain relatively steady). As such, it may prove to be too cumbersome, and more importantly not as accurate, to attempt to take a straight average of historical medical payments by claimant and apply these to future remaining months using mortality assumptions. The model will use a combination of individual claim history as well as aggregate claim data by accident year.

Appendix C, Exhibit 7 shows the historical calendar year payments (by accident year) for the open claims **not** at the reinsurance retention. A calculation was then performed whereby payments for each accident year were trended by a 6% inflation factor to put all years at the 1997 accident year cost level. A weighted average for the 1984-1997 years was then determined using the number of open claims as weights.

Of importance is the apparent "U-Shaped" payment pattern seen on the graph associated with this group of open claims (Appendix C, Exhibit 7, Page 1). Because this is a forever changing body of claims, the information should be reviewed periodically. The spike in early year payment is consistent with claimants needing the initial costly surgeries following an injury, and the intensive physical therapy associated with treatment. Over time, there is a decrease in utilization, which may counteract the effects of medical inflation. The decrease appears to end about 11-12 years following the initial accident date where we begin to see a gentle rise in payments once again. It is very likely that as the population ages, they begin to need follow-up surgeries and additional treatments. As ABC has been in runoff for four years, we will look at payments beginning at year 5. After appearing to be at a low point at around year 11-12, there begins to be an increase in average payment.

The rise in payments beginning at year 11 can be looked at as a combination of two pieces: (1) those who need therapy only – this should go up annually by about the amount of people's wages or hourly costs~4% at this writing, and (2) those who need additional surgeries. Anecdotal data would suggest that surgeries and hospitalizations increase at a higher trend. We can think of a 6% escalation in loss trend as a combination of therapy cost increase with a virtual "cat load" of 2% for those needing surgeries or other additional costs.

To handle the "u-shaped" payment behavior, the model has observed that, for the case where all accident years are trended to the same point in time, the year 5 and year 16 payment average is approximately equal to the average of the years 5 through 16 payment average. In other words, historical medical payments show a relatively level average payment for years 5 through 16. Since ABC has been in runoff for four years, payments for the first four years would not be applicable to the current book of claims. The model will assume payments will be flat for calendar years 5-16, and then escalate payments beginning at calendar year 16 (in those scenarios where we apply escalation percentages). This procedure takes a summation of all projected calendar year payments for each claimant, considering each particular accident year.

The by accident year averages show very little difference among payments for accident years 1979-1991. As such, the procedure is simplified by taking a weighted average for calendar years 5-16 payments to apply to these accident years. For the years, which do not have 16 calendar years of payments yet, we have taken the average of years 5 through N, where N is the most recent calendar year. For accident years 1992 and 1993, we have determined the average of the payments for years 5 through N. Because there have been very few historical payments for accident years 1994-1997, we have trended the 1993 selected 5 through N average by the selected escalation percentages - at

6% for the 6% escalation scenario, and at 10% for both the 10% escalation scenario as well as the "10% year 17-21, 6% thereafter" scenario. These values will be used in the model during the escalation procedures.

The model takes the average monthly paid amount, by claim, through the first eight years following the date of the accident, and applies these amounts to the remaining months up to the first eight years. As our data shows that the first four years are among the highest payments because of the initial surgeries and comprehensive treatments, we would expect the first eight year average to be especially high for the claims whose accident dates are less than eight years ago. In ABC's case, since a 75% quota share applies to Accident Years 1995-1997, the impact of this conservatism in somewhat counteracted.

For the remaining months for years 9-16, the model takes the lesser of the monthly average of years 1-8 and the selected 5 through N average as determined previously – a weighted average for years 5-16 (or 5-N) for accident years 1979-1991, the actual 5-N average for accident years 1992 and 1993, and the trended average for accident years 1994-1997. It is possible that for the **second** eight years, there may be a shortfall in applying a lower payment for a particular claimant (first 8 year average) instead of the 5-16 all claim average. This should be offset in the cases where the individual claim average for the **first** eight years is higher than the 5-16 all claim average.

Beginning at age 17, we escalate the age 16 payments by the appropriate escalation scenario (assuming there is one) by accident year, and apply this procedure to each claimant. In the case where 10% escalation is assumed for years 17-21, and 6% thereafter, the payment for year 17 is 10% higher than the payment for year 16, the payment for year 18 is 10% higher than the payment for year 17, etc. The payment for year 22 should be only 6% higher than the payment for year 21, etc. In the scenario assuming no medical escalation, identical payments will be made for all years beginning with year 9.

2) Supplemental Indemnity Escalation

Permanent Total claims qualify for a supplemental indemnity (SI) benefit under Florida statute. The model adjusts reserves for Unlikely to Settle PT claims for the additional benefit to claimants.

The benefit allows a 5% yearly increase (additive, not compounded) to the base weekly wage. For instance, in year one, the increase would be 5% of the weekly wage; in year two it would be 10% and so forth. The benefit is eligible for all applicable recoveries including SDTF. For each accident year, the benefit would be limited to certain Statutory maximums. The model has performed a separate adjustment whereby eligible claims are looked at separately, and the monthly SI benefit is applied to the number of remaining months (subject to the maximums). Necessary adjustments are then applied for cessions where necessary. Appendix C, Exhibit 8 includes sample SI calculations.

Over time, the model can perform an adjustment to project claims, which will become PT claims, and then determine an SI adjustment for these. The same body of claims, however, may be eligible for a Social Security offset, and so there may be a negligible impact after offset. When only unlikely to settle claims remain, it may be a future exercise of the claims department to determine, which remaining claims have a realistic impact of reclassification. Following this determination, both SI and Social Security adjustments could be determined.

C. ABC Specific Adjustments (Outside the Claims Specific Model)

1. Background

Now that we have established Workers Compensation IBNR using the payment specific claims model, we will need to adjust the model's IBNR figure for items, which make sense to be considered outside the claims specific model. The items listed in the next section were not considered in the payment model proposed by Teng in his 2001 Reserve Call paper, but the resulting additional IBNR or valid recovery amounts would be necessary adjustments to consider prior to booking a final net IBNR provision.

2. Specific Adjustments

a. Subrogation

The model doesn't adjust for recoveries for subrogation. In the Workers Compensation line of business, salvage recoveries are rare or non-existent. Subrogation recoveries could result in the case of carrier dispute (for instance, in the case of disease manifestation or injury triggers), or line of business dispute (for instance, an automobile accident in the course of employment) just to give a couple of examples.

To arrive at anticipated subrogation recoveries, we have applied a traditional paid subrogation to paid loss and ALAE development approach (using annual link ratios) to derive an overall percentage of losses and ALAE, which will be subject to subrogation recoveries. We then applied the ultimate percentage to the ultimate IBNR (including ALAE). Based upon our scenario using 100% of carried reserves as the settlement amount for likely to settle claims, and 6% escalation after year 17 (Appendix C, Exhibit 4), the ultimate subrogation ratio of 1.9% is multiplied by ultimate IBNR of $1,590,341 to arrive at IBNR recovery of $30,216 (Appendix D).

An enhancement for companies with credible enough information would be to apply ultimate subrogation recovery ratios to IBNR for each accident year. Also, if specifics knowledge of recoveries are known or anticipated, adjustments could be made to each of the specific claimants (as well as seeing impact of cessions to reinsurers or the SDTF).

With reinsurance recoveries already being contemplated in the model, determining anticipated subrogation recoveries may not be quite as simple as reducing IBNR by the subrogation amount. Since subrogation recoveries inure to the benefit of reinsurers, taking both subrogation and anticipated reinsurance recoveries could in effect double count the anticipated recoveries. However, in the case where claim payments have exceeded the reinsurance limits, subrogation recoveries would serve to effectively reinstate a portion of the reinsurance limits. In its most basic case, if all subrogation recoveries pertained only to claims below the reinsurance attachment point, 100% of the anticipated subrogation recoveries could be applied to IBNR. If all subrogation recoveries effected claims already at the reinsurance attachment point or greater, 0% of the subrogation recoveries should be applied to IBNR. Should a particular company's practice be to not pursue subrogation recoveries as aggressively when a claimant is already in the reinsurance layer, they could consider applying a factor (such as 75%) to the anticipated subrogation recoveries to consider the possibility that some anticipated recoveries may potentially inure to the benefit of reinsurance recoveries.

b. New/Reopened Claims

A provision for new and reopened claims has been handled as an outside-the-model adjustment. As not all carriers are consistent in their definitions of new, reopened, or even closed claims, some entities may be more subject to additional claims going forward. For example, some entities may deem a claim closed if there is a lack of payment activity for a set number of months. Others may only treat a claim as closed if a complete release has been signed. Obviously the former entity would be expected to have more future activity from reopened claims than the latter.

New/IBNR Claims - As mentioned earlier, Workers Compensation claims have specific statute of limitations regarding reporting requirements for new claims. In most cases, ABC (in runoff for four years) will be able to deny payment for new claims on the grounds that they are being filed after the required statute of limitations for Florida. At this point in time, there can still be some exposure under Employers Liability – Section B as a result of third party over actions (for instance, if an employee gets hurt while using a product, sues the product manufacturer, who then countersues the employee's supervisor for negligence – this would be considered a "third party over action"). Exposure for Employers Liability is fairly remote with the passage of time. Although no specific adjustment has been made for IBNR claims (under Section B or otherwise), a provision could be put in as a conservative adjustment to the model.

Reopened Claims – Recent legal contract language and Florida Statutes have made reopening of closed claims a virtual impossibility, especially after a settlement offer has already been accepted by a claimant. Occasionally, courts may allow a reopening of a claim based on alleged fraud in settlement (not disclosing immediate necessary medical procedures upon settlement would be an example), but such an instance is viewed as the very rare exception rather than the rule.

More commonly, ABC occasionally receives a late medical procedure bill for services rendered prior to settlement. As such, a claim file is temporarily opened, a payment is rendered, and then the claim file will immediately be "re-closed". The provision for this type of adjustment has been added to the IBNR calculated on the model. Based on the most recent statistics, ABC has received a monthly average of $108,361 for reopened claims, with the yearly median decreasing by 15.68% annually. As seen on Exhibit E, this will result in another $6.991 Million of IBNR, calculated using a geometrical decay procedure.

c. Amounts in Excess of Reinsurance Limits

Given the mortality assumptions in the table used, and the average payments calculated per claimant, it was determined that no claims would pierce the reinsurance limit, and result in additional liability to ABC. However, the contingency that claimants may ultimately incur costs in excess of the reinsurance limit could exist under a few scenarios: (1) individual claimants with significant payments outliving the expected number of years, (2) modest deterioration of the large "override" claims, and (3) a current sound reinsurer may become impaired or insolvent at some point in the future.

To calculate the amount of liability for claims exceeding the reinsurance maximum, we assumed that each claimant would live to be 95 years old, and multiplied the amounts in excess of the reinsurance limit by the probability that a claimant would live to the age of 95. We have used this method as a shortcut approximation of an approach, which would multiply the payment for a given age of claimant by the probability that this claimant survives each passing year (up to age 95). Using our scenario of 100% of carried reserves as the settlement amount for likely to settle claims, and 6% escalation after year 17, we have discovered that three claimants would exceed the applicable maximum reinsurance thresholds. An additional $665,497 (calculated in Appendix F) has been added to the model's ultimate net IBNR.

Mathematically, a company with credible enough data could consider estimating these loss amounts by performing a stochastic simulation. However, parameter risk would most likely increase as the number of open claims begins to decline.

d. Migration of Claimants from 'Likely to Settle' to 'Unlikely to Settle'

Claimants have been assigned into the classifications of likely to settle and not likely to settle based on judgment of ABC's claims operations. As would be expected, as time passes, not all "likely" claimants settle, nor do all "unlikely" claimants continue to refuse settlement offers. We will also assume that our calculation will cover claimants who switch categories i.e. going from the "other" category (which would include permanent partial or temporary total classifications) into the "permanent total" category. Companies with more credible information may consider further studying this switch as an enhancement to the ABC model.

Based upon a calendar year analysis, discussions with the claims department, and judgment, we have determined that roughly 10% of claimants deemed as likely to settle will eventually be in the unlikely to settle category (this is a net figure with an assignment of +1 given to a claimant who switches from likely to unlikely and –1 given to a claimant who accepts a settlement after being classified as unlikely). Based upon our scenario using 100% of carried reserves as the settlement amount for likely to settle claims, and 6% escalation after year 17, we have determined that the average amount of net payment for likely to settle claims is $41,699 (equals $28,787,584 divided by 690). The similar calculation for the unlikely to settle claims gives an average net amount of $160,329 (equals $62,688,761 divided by 391). We have selected the approximate difference in these averages of $125,000 as the increase in severity due to the changing of classification. The final adjustment will multiply 10% of the number of likely claimants (690) by $125,000 equals 690*10%*$125,000=$8,625,000.

In this example, we have conservatively not considered the additional impact that reinsurance cessions may have on the classification switch. Companies with more credible data may want to consider switching from likely to unlikely by explicit category.

D. Possible Enhancements

While the assumptions used for the ABC non-traditional model are appropriate for an entity with such few open claims, additional endless possibilities could be used depending on data availability, credibility considerations, and management's tolerance for change.

1. BF Test A Priori to be used for Traditional Methods

If vast differences exist between the selected ultimates determined by traditional methods and those of the claim specific method, a company could aggregate the claim specific ultimates by accident year, and use these selections as the a priori in a traditional method Bornhuetter-Ferguson test.

The effect of this would be to smooth in the claim specific ultimates to the comfort level of management (or shareholders) while still being in a position to make refinements to ultimates for differences from expected results going forward.

2. Restatement of Loss Development Triangles to Reflect Experience of Open Claims Only

Historical loss development triangles can be developed whereby the experience shown is that of only the remaining open claimants. Loss development and BF methods can be applied to this triangle to determine ultimate loss amounts. The results of this method can be compared with those already determined by the claims specific model for

reasonableness. Some reserving actuaries already employ similar procedures to remove commuted treaties and treaties at a loss "maximum cap" from their loss development history.

As mentioned previously, an appropriate provision should be considered here to reflect payments associated with the reopening of claims that were previously closed.

3. Accident Year by Calendar Year Average for Indemnity and ALAE

ABC has taken a monthly average, claim by claim, of average indemnity payments (monthly four year average for ALAE payments) to project the ultimate paid reserve. Companies with a greater number of unlikely to settle claimants may find this procedure too cumbersome, and think about taking an average by accident year for indemnity and ALAE, identical or similar to the procedure used by ABC for medical payments. States with more stringent statutory escalation for Cost of Living Adjustment (COLA) such as Massachusetts would need appropriate modifications.

4. By All Type splits

ABC, with a non-increasing number of claimants, looks to group all claimants into either the "likely to settle" or "unlikely to settle" category. Companies with a credible enough body of open claimants could consider refining the data set (PT Pending vs. Medical Maintenance vs. Other, etc.) to see if significantly different conclusions may be reached as to ultimate reserve amounts. These companies can also further study migration among classification types.

5. Hospital vs. Home Healthcare splits

Companies with credible enough data could look to see if different trends and development are visible when medical payment data is split between Hospital/Surgeon costs and Home Healthcare costs.

6. Actual vs. Expected Calculations

To test the assumptions of a claims specific model, the previous year's model can be run to assume each claimant will live only 12 more months. The expected and actual payments and reported losses can then be compared and refinements to assumptions made accordingly.

III. WORKERS COMPENSATION ALLOCATED LOSS ADJUSTMENT EXPENSE (ALAE) ISSUES

A. Background

As mentioned in an earlier section, the implementation of the Florida Tort Reforms of 1994 has impacted the ALAE development of Florida Workers Compensation carriers in general, and ABC in particular. Most companies, including ABC, saw large increases in their ALAE costs in Calendar Years 1996 and 1997; a direct result of the first push to reclassify claimants' injury types to the Permanent Total category (recall that Temporary Total and Temporary Partial benefits were to expire after 104 weeks of coverage - 1/1/1996 if classification began at 1/1/1994). It is our experience, that once a claim is considered a "PT Pending" claim, it would be a rare exception for it not to ultimately become a PT claim.

Although the initial push to file for additional benefits subsided following the 1996 and 1997 calendar years, there remains no statute of limitations for attempted reclassifications. However, one would expect that over time, a runoff entity like ABC will have fewer and fewer older non-PT claims that would have enough PT characteristics to eventually qualify for inclusion.

Additionally, a conscious effort was made by the ABC claims department beginning in 1999 to put more borderline claims into the PT category immediately, rather than pay additional ALAE costs to fight the classification. This manner is similar to the way some claims departments may never fight any claim they can settle for under a given amount, say $5,000.

Several factors may, in fact, lead to an exception to the actuarial Salzmann principle, which states, "The ratio of paid allocated loss expense to paid loss generally increases with the age of development." One obvious reason is that a lot of ALAE may be expended initially to reclassify a claim as PT. Once the reclass has taken place, there should be less ALAE expended unless a settlement is rendered. Also, over time, there will be fewer remaining non-PT claimants, and therefore, there will be fewer claims to pursue reclassification with.

Finally, as mentioned earlier, effective 10/1/2001 in Florida, a judge no longer needs to approve an agreed upon settlement for new claims. Additionally, judges would also be allowed to review legal expense for reasonableness. These changes should serve to cut down on ALAE going forward. It should also lead to ABC having fewer resolved claims at any given point in time, all things being equal.

B. ALAE in Claims Specific Model

Given the information in the previous section, it should be apparent that the paid ALAE pattern was somewhat erratic for the 1996 and 1997 calendar years, and should probably be less so going forward.

Many companies don't even establish case reserves for ALAE, booking only a bulk IBNR figure for their financial statements. Traditional ALAE reserving methodologies usually involve variations of Paid Loss development methods (Paid ALAE Development, Paid ALAE Bornhuetter-Ferguson, Paid ALAE/Paid Loss Development). In our Florida Workers Compensation case, we would need to adjust the development factors and expected ALAE ratios accordingly in some sort of judgmental fashion. Settlements of claims would create yet another distortion. The possibility of overstating the needed reserve would be very realistic. In fact, the ALAE case reserves for ABC have steadily declined each of the past two years, possibly the result of a lag in reflecting Industry conditions Post-1997. Finally, we should consider that as ABC's reported losses begin to pierce the applicable reinsurance retentions, we would expect more ALAE to be ceded under the reinsurance treaties of ABC (predominately pro-rata).

The claims specific model simplifies the process somewhat. Historical payments are tracked for the last 48 months for each individual claim. This monthly average is then multiplied by the number of remaining months to determine the ultimate ALAE reserve. Appropriate cession modifications are then made if future loss cessions would increase over time. Under some treaties, ALAE cessions under pro rata agreements are rounded down to the nearest whole percent in accordance with reinsurance agreements. For example, if 32.4% of losses were ceded under an "ALAE pro rata" reinsurance agreement, we would then cede 32.0% of ultimate ALAE. Adjustments have been made for the applicable treaties.

Until the end of 2001, the average ALAE payment will include some payments from the 1997 calendar year, which looked to be the tail end of the "big ALAE cost years" following the Tort Reforms of 1994. We could consider taking the latest three-year monthly average (1998-2000) or each of the latest three years averages multiplied by appropriate inflation factors. It is still unclear as to whether ALAE costs will routinely increase for a given claim especially if it is already classified as a PT claim, and there is no likely future settlement. Such a situation should have very little additional outside attorney involvement. In the specific claims model, we have judgmentally decided to cap each individual ALAE ultimate amount at two times the incurred to date figure. Our data shows cumulative ALAE development factors to ultimate are significantly below 2.000 for claims that are at least four years old.

IV. OTHER ISSUES

A. Unallocated Loss Adjustment Expense (ULAE)

1. Background

This section is intended to explain some of the outstanding issues, which arise in establishing ULAE reserves for runoff entities (though not necessarily comment on which one would be superior to others). Several theories exist,

and are as varied as the claims reserving practice of the companies themselves or of the interpretations of the various State Insurance Departments. Some departments have even taken the approach that a runoff entity is only set up to handle claims reserves, and as such, ALL costs associated with the runoff operations should be considered as ULAE costs. Other departments have taken the approach that runoff companies are trying to reduce their handling costs, and would recommend applying a lower percentage of ULAE reserve than they had considered while an ongoing operation. There is also an Industry expectation that outsiders (attorneys, cedents, etc.) will pursue claim actions less aggressively with a runoff entity than they would with an ongoing operation. This should reduce ULAE costs, all things being equal.

In many cases, companies are looking to reduce overhead through reduction of employees or other tangible costs, and thus historical information may not always be a good indicator of the future. On the other side, companies may have voluntary attrition of its most capable claim-handling employees who may seek other longer-term opportunities. Such a situation could add additional costs and time as training of new employees becomes necessary. If a company looks to avoid employee attrition by providing retention bonuses to some of their workers, this will result in further ULAE costs.

2. Paid ULAE to Paid Loss Method

Traditional ULAE methodologies utilize the "paid ULAE to paid loss" methodology, whereby a specified percentage is applied to IBNR while half the percentage is applied to case reserves. The underlying thought process makes the assumption that half of ULAE cost is expended when a claim is first reported, while the other half is expended when a claim is closed. A company's case reserves have already been opened and would only need to be closed (the second half of the percentage). IBNR reserves need both the first and second half of the percentage (to both open and close a claim).

Under the traditional thinking, since ABC is in runoff and has only Workers Compensation reserves (which would not have IBNR claims and pipeline IBNR becomes rare over time), the formula would simplify to the selected ULAE percentage multiplied by the case reserves (factoring in something for development of known cases perhaps). This method could be distorted if a company uses substantially different "settlement value" case reserves than whatever source was used to derive the selected percentage (either Industry or the Company's historical figures). If credible enough data exists, companies can estimate ULAE percentages required to settle claims above or below a certain open case reserve thresholds ($50,000 for example), and look to apply this methodology separately for each monetary classification.

3. Reserve Based on Pre-Paid ULAE Costs

It is not uncommon for a runoff entity to hire a Third Party Administrator (TPA) to handle claim costs going forward. These costs will be reduced over time as claims become fewer and economies of scale become present. One would expect that costs to the TPA should start to decrease over time. A ULAE reserve methodology could thus be undertaken, which takes the current year's budgeted figure and decreases this amount for a set (or infinite) number of years going forward. The formula would use a geometric decay: Reserve = Year X Budget*(1/X%-1) where X is the selected yearly decrease in TPA budgetary cost. If a company determines budgetary costs based on number of open claims being handled, appropriate modifications can turn this method into a more familiar "frequency of claims*severity of payment" method in determining projected budget figures.

4. Industry ULAE/Reserve Percentages

One can determine an Industry ratio of ULAE reserves to either IBNR or total reserve, and then apply this percentage to the appropriate company denominator. If an Industry Schedule P is used from the latest Best's Aggregates and Averages (A&A) all company page, appropriate modifications should be used to assimilate the runoff entity. For example, since ABC has been in runoff for 3 years, the three most recent Schedule P years should be excluded from the A&A page in determining the selected percentage. If one were to believe that their own establishment of settlement reserves is done in a manner inconsistent with the Industry, additional steps would need to be taken.

As there is most likely great inconsistency among definitions of ULAE by company (even after the NAIC codification of 1/1/1998), one should be particularly cautious in using this methodology, and should certainly use this method in conjunction with other methods.

B. Duration for Economic Value of Company

It is sometimes necessary to derive the company's duration for economic value for many useful functions including Industry reporting requirements to A.M.Best or many financial management reports. While ongoing operations may be able to determine this figure by simply applying a selected payout or Industry payout pattern to arrive at future payment streams, runoff entities, and especially Workers Compensation runoff entities, will need to be more careful.

As seen in both the Industry payouts and ABC calendar year payments, Workers Compensation shows a pattern of heavy payment in the first couple of years, followed by a steadier stream of payments going forward. One can look at this as really consisting of two patterns: an initial payout pattern whereby the surgeries and expensive hospitalizations occur, and a secondary payout pattern whereby claimants receive consistent payouts for mostly rehabilitation and therapy costs.

As a result, a counter-intuitive observation of duration actually INCREASING for early years can be seen in the data. An example will show how this could occur. Suppose that a payout pattern followed a "bimodal hump" pattern whereby 96% is paid in the first year, followed by four successive years of 1% payment in each. Since duration is essentially a modified weighted average of payments, you would expect that the duration just before the first year would be close to 1.0, whereas after the first year, you would expect the value to lie between 2.0 and 3.0 (or between the second and third payment). If the calculation is done blindly for a runoff entity (for instance by using the Industry pattern starting at year one), we could arrive at a duration, which would not be realistic for a runoff entity.

One could consider: (1) using an average accident date for your book of business and applying the duration for this accident year only, and (2) calculating the duration for all accident years and then determining a weighted average using the total reserve amounts for each accident year. ABC, however, has now established a claims specific payment model. For likely to settle claims (a shrinking segment of the remaining claims), an assumption can be made as to future payouts. This can be as simple as assuming a uniform payout assumption over a given number of years. For the unlikely to settle claims, it would be a less judgmental exercise to simply divide all future payments into calendar year projections (under any or all escalation/recovery scenarios) and use these payment figures to determine not only an appropriate duration figure, but also any discount factors, which may be requested. Using the claims specific model would not only serve to provide more accurate and stable conclusions but also lead to more justifiable and defendable assumptions.

V. CONCLUSIONS

Traditional reserving methodologies, like all other actuarial methodologies, use historical data where available, supplemented with judgmental decisions. For a runoff situation, additional difficulty lies when remaining claimants and development patterns may be drastically different than those seen in historical data. Such items may lead one to consider setting IBNR using non-traditional reserving methods.

This paper has introduced some practical approaches for estimating reserves, for an operation, which has recently been subject to both internal and external changes. The reserving model introduced shows how a runoff entity has handled distortions, which could be significant when applying traditional methods to a dwindling book of outstanding claims. While the methods shown are not panaceas for all problems and situations associated with runoff reserving certainties and uncertainties, these methods, in conjunction with the traditional methods and actuarial judgment, can be used for the purposes of many business requirements and scopes of assignment.

Although a Florida Workers Compensation runoff situation has been used as the base model, many of the methods and assumptions used, especially in regard to items such as inuring reinsurance arrangements, can be applied to any operation. A runoff example is not unique when one thinks of an ongoing situation as consisting of two segments –

(1) the more recent years of less mature data, and (2) older groups of data, which can be considered similar to a runoff entity. Obvious adjustments will need to be made if one assumes that claimants perceive ongoing enterprises as having "deep pockets" and thus pursue claims less aggressively with runoff companies.

Methods shown at the very least can be viewed as reasonability "tests" for a company's traditional reserving methodologies. If an actuary would need to explain results to management or outside agencies, new methods can be used to supplement traditional methods. From an internal perspective, management may look to see how varying scenarios would impact their own bottom line financial figures.

The intent of the paper was to not only take the readers through this particular situational example, but rather to encourage the thought process as to what items may need to be considered for an entity's own case. In particular, Workers Compensation carriers may be subject to substantially different State laws and regulations; additionally, case-reserving philosophies among different companies' claims departments can be significantly different. It is the author's hope that the items discussed within can be readily adaptable to whatever situations may happen to arise in day-to-day operations.

Most importantly, no reserving method should ever be used in complete isolation from all others. Integration among other methodologies, systems departments, and claims operations is critical for the development of appropriate reserves for management. Considerable judgment will need to be employed in using non-traditional methods, but scenario testing of assumptions is a reasonable way to gain a comfort level for variation of ultimate reserve level. It is the ongoing thought process of applying different methods to each individual scenario, which will be instrumental in providing reasonable and justifiable conclusions given less than typical situations.

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APPENDIX

This Appendix documents the assumptions and methods underlying the abstract.

Background on 1994 Florida Tort Reforms and Special Disability Trust Fund– APPENDIX A

Calculation of Final IBNR Amount– APPENDIX B

Backup to Workers Compensation Claims Development Model – APPENDIX C

Calculation of Subrogation Recovery – APPENDIX D

Calculation of New/Reopened Claims Provision – APPENDIX E

Calculation of IBNR Amounts Exceeding Reinsurance Limits – APPENDIX F

Sample ULAE Calculations – APPENDIX G

Duration of ABC Insurance Company – APPENDIX H

Background on 1994 Florida Tort Reforms and Special Disability Trust Fund –

Appendix A

1. Key Changes to Florida Tort Reforms – 1/1/1994

Background - While the State of Florida enacted legislation effective January 1, 1994 with the intention of containing future Workers Compensation costs; the overall implementation has proven to have quite the opposite effect from what was originally intended. This Appendix will give some background on key reforms, and try to show why costs have risen not only for losses, but also for loss adjustment expense, and internal claims operations.

Workers Compensation benefits are determined by statute, and therefore, in theory should be a no-fault type of coverage. As will be seen, the Tort Reforms of 1994 gave ample opportunity to aggressively pursue (driving up ALAE costs) both better benefit reclassifications as well as more lucrative settlement opportunities (which drove up costs).

Changes in Benefits by Category – Beginning with the 1994 Reforms, *Temporary Total* (TT) benefits were reduced from a maximum duration of 260 months or the classification of Maximum Medical Improvement (MMI) to 104 weeks, regardless of whether or not MMI was declared by a physician. After the 104 weeks expired on 1/1/1996 to extend benefits, many filings took place to push for more reclassifications into Permanent Total categories. Reduced benefits after 104 weeks were subsequently awarded.

Beginning in 1994, *Permanent Partial* (PP) benefits had the lost time payments reduced from 66 2/3% of the Average Weekly Wage (AWW) to 33 1/3% of the AWW.

An attempt was made to restrict those claimants who were eligible for *Permanent Total* (PT) benefits, providing a list of eligible injury classifications as well as admittance if a claimant was already accepted for Social Security Disability benefits (SSDI).

Since the reforms, judges have begun to allow more liberal interpretations of PT eligibility with many precedents being set statewide. In many cases, judges allowed for a "temporary" allowance of Permanent Total benefits pending future observation. This becomes a difficult item to overturn as time goes on. Additionally, Social Security **potential** for acceptance, instead of **actual** acceptance has become the norm for reclassification rather than the exception.

As a result, the statistics in the state of Florida show a greater frequency of PT claims, and higher severity for its TT and PP claims. It has been theorized that originally classified TT and PP claimants may more aggressively pursue expensive treatments early on (driving up costs) in the hopes that they can be better positioned for PT classification in the future (driving up frequency). Florida PT claims also show a lower severity than the Industry, in part because many of these claimants would not be as seriously injured as PT claimants in other states (injury impairment would be considered TT or PP in other states, which would have lower severities). The costs of reclassification have

contributed to Florida having an ALAE percentage of loss, which is significantly higher than the Countrywide average.

Alternative Dispute Resolution – An Office of Employee Assistance (OEA) was established to attempt to cut down on the time and costs of attorney involvement. In actuality, time and attorney costs actually ended up increasing. With many petitions being filed with the OEA, the system was not able to function without large operational costs, which sometimes resulted in retribution to attorneys for the costs of submitting the petitions.

Allowance of Medical Settlements – Prior to 1994, entities were allowed to settle indemnity (lost wages) portions of a claim, but not medical loss or loss adjustment expense. Beginning 1/1/1994, companies were allowed to settle the entire Workers Compensation claim, or any portion thereof (medical or lost wage). The allowance of additional settlements may have contributed to additional ALAE costs in the state of Florida.

2. Special Disability Trust Fund (SDTF)

The Special Disability Trust Fund (SDTF) reimburses the employer when an employee suffers an injury, directly or indirectly, as a result of a previous disability. If an employee with a pre-existing injured back was forced to take a job as a salesperson instead of a manual laborer, a subsequent injury in a car accident may make the employee eligible for SDTF recoveries. SDTF recoveries inure to the benefit of all additional reinsurance coverage.

The Florida SDTF operates on a pay-as-you-go basis whereby each Florida Workers Compensation writer contributes a percentage of current premium writings (4.5% currently).

Beginning in 1994, the State of Florida made a handful of revisions to the rules of SDTF benefit. Whereas accidents occurring prior to 1/1/1994 would receive full benefit of SDTF recovery, those accidents taking place following 1/1/1994 would only receive 50% of the eligible benefit recovery. Accidents taking place beginning 1/1/1998 are unable to receive any benefit from the SDTF. Also beginning in 1994, injuries must meet a verbal threshold of eligible injuries, in addition to a monetary deductible threshold of $10,000 per claimant.

In order to receive benefits, an affidavit must first be filed stating that the employer knew, in advance, of the ailment or previous medical condition. After securing the affidavit, a medical opinion is needed stating that the subsequent injury was made worse as a result of the pre-existing condition. Finally, a proof of claim needs to be submitted to the SDTF whereby they will have 90 days to approve or disapprove a claim for recovery. Once a claim is approved, it is very rare that a subsequent disapproval will take place.

The SDTF will pay for paid claims on a first come, first served basis. As additional payments are made on case reserves or development on known cases, additional papers (called SDF-2 forms) will need to be filed with the State.

Currently, the time from notice of claim until recovery from the Fund is received is a little more than three years as recouping assessments lag behind payment of benefits.

Calculation of Final IBNR Amount -

Appendix B

Final ABC IBNR calculation including Adustments not covered by Claims Specific Workers Compensation Model

Scenario: (Likely to Settle at 100% of Current Reserves with 10% medical escalation years 17-21, 6% escalation thereafter)

Segment	IBNR Addition/(Subtraction)
Claims Specific Model IBNR	$1.590
Subrogation	($0.030)
True IBNR Claims/Pipeline IBNR/Reopened Claims Adjustment	$6.991
Net migration of claims from Likely to Settle to Unlikely to Settle (and vice versa), etc.	$8.625
Adjustment for exceeding of reinsurance limits or impaired reinsurance	$0.665
TOTAL – All Additional Items	**$17.841**

Backup to Workers Compensation Claims Development Model -

Appendix C

ABC INSURANCE COMPANY
Claim Specific Loss Reserve Model with Losses Evaluated as of December 31, 2000

Summary (Maximum Exposure with no medical escalation)

	# Claims	Maximum Exposure (A) Direct	SDF-Reqstd	SDF-on Res	Ceded	Net
Closed Claims	26	0	597,525	0	(98,635)	(498,890)
Resolved Claims	1,429	8,081,983	43,385,627	0	(3,354,927)	(31,948,717)
Coverage B/coverage issues	16	702,191	0	0	449,367	252,824
Special Disability accepted claims						
Likely to Settle	99	62,080,400	4,490,180	38,964,140	11,692,622	6,933,458
Unlikely to Settle	97	39,353,217	6,650,415	27,722,435	4,026,957	953,410
Total special disability accepted claims	196	101,433,617	11,140,595	66,686,575	15,719,579	7,886,868
Maximum reinsurer reserve claims						
Likely to Settle	39	47,668,159	0	0	29,512,506	18,155,653
Unlikely to Settle	63	54,713,811	0	0	37,866,350	16,847,461
Total maximum reinsurer reserve claims	102	102,381,970	0	0	67,378,856	35,003,114
Likely to Settle						
PT	76	68,821,993	0	0	39,084,031	29,737,962
Not at MMI	100	23,600,739	0	0	10,672,883	12,927,856
Medical Maintenance	96	8,630,703	0	0	266,624	8,364,079
PT Pending	33	14,468,232	0	0	6,624,531	7,843,701
Other	385	92,228,143	0	0	40,157,993	52,070,150
Total Likely to Settle	690	207,749,810	0	0	96,806,062	110,943,748
Unlikely to Settle						
PT	45	22,137,855	0	0	7,906,520	14,231,335
Not at MMI	33	3,675,759	0	0	563,048	3,112,711
Medical Maintenance	159	10,299,084	0	0	144,499	10,154,585
PT Pending	5	1,512,003	0	0	499,372	1,012,631
Other	149	11,078,570	0	0	2,085,450	8,993,120
Total Unlikely to Settle	391	48,703,271	0	0	11,198,889	37,504,382
Grand Total	2,850	469,052,842	55,123,747	66,686,575	188,099,191	159,143,329
Likely to settle	828	317,498,369	4,490,180	38,964,140	138,011,190	136,032,859
Unlikely to settle	551	142,770,299	6,650,415	27,722,435	53,092,196	55,305,253
Grand total (excl closed/cov B/resolved)	1,379	460,268,668	11,140,595	66,686,575	191,103,386	191,338,112

ABC INSURANCE COMPANY
Claim Specific Loss Reserve Model with Losses Evaluated as of December 31, 2000

Summary (Maximum Exposure with no medical escalation)

		As Reported (B)				Difference = (A)-(B)			
	# Claims	Direct	SDF	Ceded	Net	Direct	SDF	Ceded	Net
Closed Claims	26	13,876	0	10,091	3,785	(13,876)	597,525	(108,726)	(502,675)
Resolved Claims	1,429	18,111,596	0	5,297,462	12,814,134	(10,029,613)	43,385,627	(8,652,389)	(44,762,851)
Coverage B/coverage issues	16	702,191	0	449,367	252,824	0	0	0	0
Special Disability accepted claims									
Likely to Settle	99	13,484,539	0	5,674,656	7,809,883	48,595,861	43,454,320	6,017,966	(876,425)
Unlikely to Settle	97	15,060,904	0	4,903,268	10,157,636	24,292,313	34,372,850	(876,311)	(9,204,226)
Total special disability accepted claims	196	28,545,443	0	10,577,924	17,967,519	72,888,174	77,827,170	5,141,655	(10,080,651)
Maximum reinsurer reserve claims									
Likely to Settle	39	11,053,502	0	5,217,631	5,835,871	36,614,657	0	24,294,875	12,319,782
Unlikely to Settle	63	20,833,189	0	13,729,879	7,103,310	33,880,622	0	24,136,471	9,744,151
Total maximum reinsurer reserve claims	102	31,886,691	0	18,947,510	12,939,181	70,495,279	0	48,431,346	22,063,933
Likely to Settle									
PT	76	12,706,345	0	3,653,508	9,052,837	56,115,648	0	35,430,523	20,685,125
Not at MMI	100	4,024,591	0	1,209,992	2,814,599	19,576,148	0	9,462,891	10,113,257
Medical Maintenance	96	3,559,253	0	0	3,559,253	5,071,450	0	266,624	4,804,826
PT Pending	33	3,124,530	0	739,757	2,384,773	11,343,702	0	5,884,774	5,458,928
Other	385	16,781,741	0	5,295,060	11,486,681	75,446,402	0	34,862,933	40,583,469
Total Likely to Settle	690	40,196,460	0	10,898,317	29,298,143	167,553,350	0	85,907,745	81,645,605
Unlikely to Settle									
PT	45	8,621,601	0	1,590,017	7,031,584	13,516,254	0	6,316,503	7,199,751
Not at MMI	33	996,314	0	169,936	826,378	2,679,445	0	393,112	2,286,333
Medical Maintenance	159	5,755,231	0	2,792	5,752,439	4,543,853	0	141,707	4,402,146
PT Pending	5	324,745	0	10,835	313,910	1,187,258	0	488,537	698,721
Other	149	5,584,773	0	985,170	4,599,603	5,493,797	0	1,100,280	4,393,517
Total Unlikely to Settle	391	21,282,664	0	2,758,750	18,523,914	27,420,607	0	8,440,139	18,980,468
Grand Total	2,850	140,738,921	0	48,939,421	91,799,500	328,313,921	121,810,322	139,159,770	67,343,829
Likely to settle	828	64,734,501	0	21,790,604	42,943,897	252,763,868	43,454,320	116,220,586	93,088,962
Unlikely to settle	551	57,176,757	0	21,391,897	35,784,860	85,593,542	34,372,850	31,700,299	19,520,393
Grand total (excl closed/cov B/resolved)	1,379	121,911,258	0	43,182,501	78,728,757	338,357,410	77,827,170	147,920,885	112,609,355

ABC INSURANCE COMPANY
Claim Specific Loss Reserve Model with Losses Evaluated as of December 31, 2000

Summary (Likely to Settle at 80% of Current Reserves with no medical escalation)

	# Claims	Likely Exposure @80% of Current Reserves (A)				
		Direct	SDF-Reqstd	SDF-on Res	Ceded	Net
Closed Claims	26	0	597,525	0	(98,635)	(498,890)
Resolved Claims	1,429	8,081,983	43,385,627	0	(3,354,927)	(31,948,717)
Coverage B/coverage issues	16	702,191	0	0	449,367	252,824
Special Disability accepted claims						
Likely to Settle	99	10,446,757	4,490,180	6,590,868	579,958	(1,214,249)
Unlikely to Settle	97	39,353,217	6,650,415	27,722,435	4,026,957	953,410
Total special disability accepted claims	196	49,799,974	11,140,595	34,313,303	4,606,915	(260,839)
Maximum reinsurer reserve claims						
Likely to Settle	39	8,842,802	0	0	3,748,859	5,093,943
Unlikely to Settle	63	54,713,811	0	0	37,866,350	16,847,461
Total maximum reinsurer reserve claims	102	63,556,613	0	0	41,615,209	21,941,404
Likely to Settle						
PT	76	10,165,076	0	0	2,922,807	7,242,269
Not at MMI	100	3,219,673	0	0	967,993	2,251,680
Medical Maintenance	96	2,847,402	0	0	0	2,847,402
PT Pending	33	2,499,624	0	0	591,806	1,907,818
Other	385	13,425,393	0	0	4,236,048	9,189,345
Total Likely to Settle	690	32,157,168	0	0	8,718,654	23,438,514
Unlikely to Settle						
PT	45	22,137,855	0	0	7,906,520	14,231,335
Not at MMI	33	3,675,759	0	0	563,048	3,112,711
Medical Maintenance	159	10,299,084	0	0	144,499	10,154,585
PT Pending	5	1,512,003	0	0	499,372	1,012,631
Other	149	11,078,570	0	0	2,085,450	8,993,120
Total Unlikely to Settle	391	48,703,271	0	0	11,198,889	37,504,382
Grand Total	2,850	203,001,200	55,123,747	34,313,303	63,135,472	50,428,678
Likely to settle	828	51,446,727	4,490,180	6,590,868	13,047,471	27,318,208
Unlikely to settle	551	142,770,299	6,650,415	27,722,435	53,092,196	55,305,253
Grand total (excl closed/cov B/resolved)	1,379	194,217,026	11,140,595	34,313,303	66,139,667	82,623,461

ABC INSURANCE COMPANY

Claim Specific Loss Reserve Model with Losses Evaluated as of December 31, 2000

Summary (Likely to Settle at 80% of Current Reserves with no medical escalation)

	# Claims	As Reported (B) Direct	SDF	Ceded	Net	Difference = (A)-(B) Direct	SDF	Ceded	Net
Closed Claims	26	13,876	0	10,091	3,785	(13,876)	597,525	(108,726)	(502,675)
Resolved Claims	1,429	18,111,596	0	5,297,462	12,814,134	(10,029,613)	43,385,627	(8,652,389)	(44,762,851)
Coverage B/coverage issues	16	702,191	0	449,367	252,824	0	0	0	0
Special Disability accepted claims									
Likely to Settle	99	13,484,539	0	5,674,656	7,809,883	(3,037,782)	11,081,048	(5,094,698)	(9,024,132)
Unlikely to Settle	97	15,060,904	0	4,903,268	10,157,636	24,292,313	34,372,850	(876,311)	(9,204,226)
Total special disability accepted claims	196	28,545,443	0	10,577,924	17,967,519	21,254,531	45,453,898	(5,971,009)	(18,228,358)
Maximum reinsurer reserve claims									
Likely to Settle	39	11,053,502	0	5,217,631	5,835,871	(2,210,700)	0	(1,468,772)	(741,928)
Unlikely to Settle	63	20,833,189	0	13,729,879	7,103,310	33,880,622	0	24,136,471	9,744,151
Total maximum reinsurer reserve claims	102	31,886,691	0	18,947,510	12,939,181	31,669,922	0	22,667,699	9,002,223
Likely to Settle									
PT	76	12,706,345	0	3,653,508	9,052,837	(2,541,269)	0	(730,701)	(1,810,568)
Not at MMI	100	4,024,591	0	1,209,992	2,814,599	(804,918)	0	(241,999)	(562,919)
Medical Maintenance	96	3,559,253	0	0	3,559,253	(711,851)	0	0	(711,851)
PT Pending	33	3,124,530	0	739,757	2,384,773	(624,906)	0	(147,951)	(476,955)
Other	385	16,781,741	0	5,295,060	11,486,681	(3,356,348)	0	(1,059,012)	(2,297,336)
Total Likely to Settle	690	40,196,460	0	10,898,317	29,298,143	(8,039,292)	0	(2,179,663)	(5,859,629)
Unlikely to Settle									
PT	45	8,621,601	0	1,590,017	7,031,584	13,516,254	0	6,316,503	7,199,751
Not at MMI	33	996,314	0	169,936	826,378	2,679,445	0	393,112	2,286,333
Medical Maintenance	159	5,755,231	0	2,792	5,752,439	4,543,853	0	141,707	4,402,146
PT Pending	5	324,745	0	10,835	313,910	1,187,258	0	488,537	698,721
Other	149	5,584,773	0	985,170	4,599,603	5,493,797	0	1,100,280	4,393,517
Total Unlikely to Settle	391	21,282,664	0	2,758,750	18,523,914	27,420,607	0	8,440,139	18,980,468
Grand Total	2,850	140,738,921	0	48,939,421	91,799,500	62,262,279	89,437,050	14,196,051	(41,370,822)
Likely to settle	828	64,734,501	0	21,790,604	42,943,897	(13,287,774)	11,081,048	(8,743,133)	(15,625,689)
Unlikely to settle	551	57,176,757	0	21,391,897	35,784,860	85,593,542	34,372,850	31,700,299	19,520,393
Grand total (excl closed/cov B/resolved)	1,379	121,911,258	0	43,182,501	78,728,757	72,305,768	45,453,898	22,957,166	3,894,704

ABC INSURANCE COMPANY
Claim Specific Loss Reserve Model with Losses Evaluated as of December 31, 2000

Summary (Likely to Settle at 100% of Current Reserves with no medical escalation)

	# Claims	Likely Exposure @100% of Current Reserves (A)				
		Direct	SDF-Reqstd	SDF-on Res	Ceded	Net
Closed Claims	26	0	597,525	0	(98,635)	(498,890)
Resolved Claims	1,429	8,081,983	43,385,627	0	(3,354,927)	(31,948,717)
Coverage B/coverage issues	16	702,191	0	0	449,367	252,824
Special Disability accepted claims						
Likely to Settle	99	13,058,446	4,490,180	8,238,585	1,104,506	(774,825)
Unlikely to Settle	97	39,353,217	6,650,415	27,722,435	4,026,957	953,410
Total special disability accepted claims	196	52,411,663	11,140,595	35,961,020	5,131,463	178,585
Maximum reinsurer reserve claims						
Likely to Settle	39	10,988,688	0	0	5,213,543	5,775,145
Unlikely to Settle	63	54,713,811	0	0	37,866,350	16,847,461
Total maximum reinsurer reserve claims	102	65,702,499	0	0	43,079,893	22,622,606
Likely to Settle						
PT	76	12,706,345	0	0	3,653,508	9,052,837
Not at MMI	100	4,024,591	0	0	1,209,992	2,814,599
Medical Maintenance	96	3,048,694	0	0	0	3,048,694
PT Pending	33	3,124,530	0	0	739,757	2,384,773
Other	385	16,781,741	0	0	5,295,060	11,486,681
Total Likely to Settle	690	39,685,901	0	0	10,898,317	28,787,584
Unlikely to Settle						
PT	45	22,137,855	0	0	7,906,520	14,231,335
Not at MMI	33	3,675,759	0	0	563,048	3,112,711
Medical Maintenance	159	10,299,084	0	0	144,499	10,154,585
PT Pending	5	1,512,003	0	0	499,372	1,012,631
Other	149	11,078,570	0	0	2,085,450	8,993,120
Total Unlikely to Settle	391	48,703,271	0	0	11,198,889	37,504,382
Grand Total	2,850	215,287,508	55,123,747	35,961,020	67,304,367	56,898,374
Likely to settle	828	63,733,035	4,490,180	8,238,585	17,216,366	33,787,904
Unlikely to settle	551	142,770,299	6,650,415	27,722,435	53,092,196	55,305,253
Grand total (excl closed/cov B/resolved)	1,379	206,503,334	11,140,595	35,961,020	70,308,562	89,093,157

ABC INSURANCE COMPANY
Claim Specific Loss Reserve Model with Losses Evaluated as of December 31, 2000

Summary (Likely to Settle at 100% of Current Reserves with no medical escalation)

	# Claims	As Reported (B) Direct	SDF	Ceded	Net	Difference = (A)-(B) Direct	SDF	Ceded	Net
Closed Claims	26	13,876	0	10,091	3,785	(13,876)	597,525	(108,726)	(502,675)
Resolved Claims	1,429	18,111,596	0	5,297,462	12,814,134	(10,029,613)	43,385,627	(8,652,389)	(44,762,851)
Coverage B/coverage issues	16	702,191	0	449,367	252,824	0	0	0	0
Special Disability accepted claims									
Likely to Settle	99	13,484,539	0	5,674,656	7,809,883	(426,093)	12,728,765	(4,570,150)	(8,584,708)
Unlikely to Settle	97	15,060,904	0	4,903,268	10,157,636	24,292,313	34,372,850	(876,311)	(9,204,226)
Total special disability accepted claims	196	28,545,443	0	10,577,924	17,967,519	23,866,220	47,101,615	(5,446,461)	(17,788,934)
Maximum reinsurer reserve claims									
Likely to Settle	39	11,053,502	0	5,217,631	5,835,871	(64,814)	0	(4,088)	(60,726)
Unlikely to Settle	63	20,833,189	0	13,729,879	7,103,310	33,880,622	0	24,136,471	9,744,151
Total maximum reinsurer reserve claims	102	31,886,691	0	18,947,510	12,939,181	33,815,808	0	24,132,383	9,683,425
Likely to Settle									
PT	76	12,706,345	0	3,653,508	9,052,837	0	0	0	0
Not at MMI	100	4,024,591	0	1,209,992	2,814,599	0	0	0	0
Medical Maintenance	96	3,559,253	0	0	3,559,253	(510,559)	0	0	(510,559)
PT Pending	33	3,124,530	0	739,757	2,384,773	0	0	0	0
Other	385	16,781,741	0	5,295,060	11,486,681	0	0	0	0
Total Likely to Settle	690	40,196,460	0	10,898,317	29,298,143	(510,559)	0	0	(510,559)
Unlikely to Settle									
PT	45	8,621,601	0	1,590,017	7,031,584	13,516,254	0	6,316,503	7,199,751
Not at MMI	33	996,314	0	169,936	826,378	2,679,445	0	393,112	2,286,333
Medical Maintenance	159	5,755,231	0	2,792	5,752,439	4,543,853	0	141,707	4,402,146
PT Pending	5	324,745	0	10,835	313,910	1,187,258	0	488,537	698,721
Other	149	5,584,773	0	985,170	4,599,603	5,493,797	0	1,100,280	4,393,517
Total Unlikely to Settle	391	21,282,664	0	2,758,750	18,523,914	27,420,607	0	8,440,139	18,980,468
Grand Total	2,850	140,738,921	0	48,939,421	91,799,500	74,548,587	91,084,767	18,364,946	(34,901,126)
Likely to settle	828	64,734,501	0	21,790,604	42,943,897	(1,001,466)	12,728,765	(4,574,238)	(9,155,993)
Unlikely to settle	551	57,176,757	0	21,391,897	35,784,860	85,593,542	34,372,850	31,700,299	19,520,393
Grand total (excl closed/cov B/resolved)	1,379	121,911,258	0	43,182,501	78,728,757	84,592,076	47,101,615	27,126,061	10,364,400

ABC INSURANCE COMPANY
Claim Specific Loss Reserve Model with Losses Evaluated as of December 31, 2000

Summary (Likely to Settle at 100% of Current Reserves with 6% medical escalation beginning year 17)

	# Claims	Likely Exposure @100% of Current Reserves (A)				
		Direct	SDF-Reqstd	SDF-on Res	Ceded	Net
Closed Claims	26	0	597,525	0	(98,635)	(498,890)
Resolved Claims	1,429	8,081,983	43,385,627	0	(3,354,927)	(31,948,717)
Coverage B/coverage issues	16	702,191	0	0	449,367	252,824
Special Disability accepted claims						
Likely to Settle	99	13,058,446	4,490,180	8,238,585	1,104,506	(774,825)
Unlikely to Settle	97	46,842,746	6,650,415	34,428,568	4,277,950	1,485,813
Total special disability accepted claims	196	59,901,192	11,140,595	42,667,153	5,382,456	710,988
Maximum reinsurer reserve claims						
Likely to Settle	39	10,988,688	0	0	5,213,543	5,775,145
Unlikely to Settle	63	67,850,440	0	0	48,264,753	19,585,687
Total maximum reinsurer reserve claims	102	78,839,128	0	0	53,478,296	25,360,832
Likely to Settle						
PT	76	12,706,345	0	0	3,653,508	9,052,837
Not at MMI	100	4,024,591	0	0	1,209,992	2,814,599
Medical Maintenance	96	3,048,694	0	0	0	3,048,694
PT Pending	33	3,124,530	0	0	739,757	2,384,773
Other	385	16,781,741	0	0	5,295,060	11,486,681
Total Likely to Settle	690	39,685,901	0	0	10,898,317	28,787,584
Unlikely to Settle						
PT	45	26,008,242	0	0	10,561,657	15,446,585
Not at MMI	33	6,282,042	0	0	1,268,292	5,013,750
Medical Maintenance	159	23,572,808	0	0	1,203,715	22,369,093
PT Pending	5	2,298,182	0	0	765,008	1,533,174
Other	149	22,457,876	0	0	4,131,716	18,326,160
Total Unlikely to Settle	391	80,619,150	0	0	17,930,388	62,688,762
Grand Total	2,850	267,829,545	55,123,747	42,667,153	84,685,262	85,353,383
Likely to settle	828	63,733,035	4,490,180	8,238,585	17,216,366	33,787,904
Unlikely to settle	551	195,312,336	6,650,415	34,428,568	70,473,091	83,760,262
Grand total (excl closed/cov B/resolved)	1,379	259,045,371	11,140,595	42,667,153	87,689,457	117,548,166

ABC INSURANCE COMPANY

Claim Specific Loss Reserve Model with Losses Evaluated as of December 31, 2000

Summary (Likely to Settle at 100% of Current Reserves with 6% medical escalation beginning year 17)

		As Reported (B)				Difference = (A)-(B)			
	# Claims	Direct	SDF	Ceded	Net	Direct	SDF	Ceded	Net
Closed Claims	26	13,876	0	10,091	3,785	(13,876)	597,525	(108,726)	(502,675)
Resolved Claims	1,429	18,111,596	0	5,297,462	12,814,134	(10,029,613)	43,385,627	(8,652,389)	(44,762,851)
Coverage B/coverage issues	16	702,191	0	449,367	252,824	0	0	0	0
Special Disability accepted claims									
Likely to Settle	99	13,484,539	0	5,674,656	7,809,883	(426,093)	12,728,765	(4,570,150)	(8,584,708)
Unlikely to Settle	97	15,060,904	0	4,903,268	10,157,636	31,781,842	41,078,983	(625,318)	(8,671,823)
Total special disability accepted claims	196	28,545,443	0	10,577,924	17,967,519	31,355,749	53,807,748	(5,195,468)	(17,256,531)
Maximum reinsurer reserve claims									
Likely to Settle	39	11,053,502	0	5,217,631	5,835,871	(64,814)	0	(4,088)	(60,726)
Unlikely to Settle	63	20,833,189	0	13,729,879	7,103,310	47,017,251	0	34,534,874	12,482,377
Total maximum reinsurer reserve claims	102	31,886,691	0	18,947,510	12,939,181	46,952,437	0	34,530,786	12,421,651
Likely to Settle									
PT	76	12,706,345	0	3,653,508	9,052,837	0	0	0	0
Not at MMI	100	4,024,591	0	1,209,992	2,814,599	0	0	0	0
Medical Maintenance	96	3,559,253	0	0	3,559,253	(510,559)	0	0	(510,559)
PT Pending	33	3,124,530	0	739,757	2,384,773	0	0	0	0
Other	385	16,781,741	0	5,295,060	11,486,681	0	0	0	0
Total Likely to Settle	690	40,196,460	0	10,898,317	29,298,143	(510,559)	0	0	(510,559)
Unlikely to Settle									
PT	45	8,621,601	0	1,590,017	7,031,584	17,386,641	0	8,971,640	8,415,001
Not at MMI	33	996,314	0	169,936	826,378	5,285,728	0	1,098,356	4,187,372
Medical Maintenance	159	5,755,231	0	2,792	5,752,439	17,817,577	0	1,200,923	16,616,654
PT Pending	5	324,745	0	10,835	313,910	1,973,437	0	754,173	1,219,264
Other	149	5,584,773	0	985,170	4,599,603	16,873,103	0	3,146,546	13,726,557
Total Unlikely to Settle	391	21,282,664	0	2,758,750	18,523,914	59,336,486	0	15,171,638	44,164,848
Grand Total	2,850	140,738,921	0	48,939,421	91,799,500	127,090,624	97,790,900	35,745,841	(6,446,117)
Likely to settle	828	64,734,501	0	21,790,604	42,943,897	(1,001,466)	12,728,765	(4,574,238)	(9,155,993)
Unlikely to settle	551	57,176,757	0	21,391,897	35,784,860	138,135,579	41,078,983	49,081,194	47,975,402
Grand total (excl closed/cov B/resolved)	1,379	121,911,258	0	43,182,501	78,728,757	137,134,113	53,807,748	44,506,956	38,819,409

ABC INSURANCE COMPANY
Claim Specific Loss Reserve Model with Losses Evaluated as of December 31, 2000

Summary (Likely to Settle at 100% of Current Reserves with 10% medical escalation years 17-21, 6% thereafter)

	# Claims	Likely Exposure @100% of Current Reserves (A)				
		Direct	SDF-Reqstd	SDF-on Res	Ceded	Net
Closed Claims	26	0	597,525	0	(98,635)	(498,890)
Resolved Claims	1,429	8,081,983	43,385,627	0	(3,354,927)	(31,948,717)
Coverage B/coverage issues	16	702,191	0	0	449,367	252,824
Special Disability accepted claims						
Likely to Settle	99	13,058,446	4,490,180	8,238,585	1,104,506	(774,825)
Unlikely to Settle	97	49,357,873	6,650,415	36,627,494	4,411,618	1,668,346
Total special disability accepted claims	196	62,416,319	11,140,595	44,866,079	5,516,124	893,521
Maximum reinsurer reserve claims						
Likely to Settle	39	10,988,688	0	0	5,213,543	5,775,145
Unlikely to Settle	63	71,720,199	0	0	51,443,867	20,276,332
Total maximum reinsurer reserve claims	102	82,708,887	0	0	56,657,410	26,051,477
Likely to Settle						
PT	76	12,706,345	0	0	3,653,508	9,052,837
Not at MMI	100	4,024,591	0	0	1,209,992	2,814,599
Medical Maintenance	96	3,048,694	0	0	0	3,048,694
PT Pending	33	3,124,530	0	0	739,757	2,384,773
Other	385	16,781,741	0	0	5,295,060	11,486,681
Total Likely to Settle	690	39,685,901	0	0	10,898,317	28,787,584
Unlikely to Settle						
PT	45	27,390,591	0	0	11,609,845	15,780,746
Not at MMI	33	7,132,126	0	0	1,549,889	5,582,237
Medical Maintenance	159	27,725,015	0	0	2,173,000	25,552,015
PT Pending	5	2,612,261	0	0	986,451	1,625,810
Other	149	26,438,302	0	0	5,127,068	21,311,234
Total Unlikely to Settle	391	91,298,295	0	0	21,446,253	69,852,042
Grand Total	2,850	284,893,576	55,123,747	44,866,079	91,513,909	93,389,841
Likely to settle	828	63,733,035	4,490,180	8,238,585	17,216,366	33,787,904
Unlikely to settle	551	212,376,367	6,650,415	36,627,494	77,301,738	91,796,720
Grand total (excl closed/cov B/resolved)	1,379	276,109,402	11,140,595	44,866,079	94,518,104	125,584,624

ABC INSURANCE COMPANY

Claim Specific Loss Reserve Model with Losses Evaluated as of December 31, 2000

Summary (Likely to Settle at 100% of Current Reserves with 10% medical escalation years 17-21, 6% thereafter)

		As Reported (B)				Difference = (A)-(B)			
	# Claims	Direct	SDF	Ceded	Net	Direct	SDF	Ceded	Net
Closed Claims	26	13,876	0	10,091	3,785	(13,876)	597,525	(108,726)	(502,675)
Resolved Claims	1,429	18,111,596	0	5,297,462	12,814,134	(10,029,613)	43,385,627	(8,652,389)	(44,762,851)
Coverage B/coverage issues	16	702,191	0	449,367	252,824	0	0	0	0
Special Disability accepted claims									
Likely to Settle	99	13,484,539	0	5,674,656	7,809,883	(426,093)	12,728,765	(4,570,150)	(8,584,708)
Unlikely to Settle	97	15,060,904	0	4,903,268	10,157,636	34,296,969	43,277,909	(491,650)	(8,489,290)
Total special disability accepted claims	196	28,545,443	0	10,577,924	17,967,519	33,870,876	56,006,674	(5,061,800)	(17,073,998)
Maximum reinsurer reserve claims									
Likely to Settle	39	11,053,502	0	5,217,631	5,835,871	(64,814)	0	(4,088)	(60,726)
Unlikely to Settle	63	20,833,189	0	13,729,879	7,103,310	50,887,010	0	37,713,988	13,173,022
Total maximum reinsurer reserve claims	102	31,886,691	0	18,947,510	12,939,181	50,822,196	0	37,709,900	13,112,296
Likely to Settle									
PT	76	12,706,345	0	3,653,508	9,052,837	0	0	0	0
Not at MMI	100	4,024,591	0	1,209,992	2,814,599	0	0	0	0
Medical Maintenance	96	3,559,253	0	0	3,559,253	(510,559)	0	0	(510,559)
PT Pending	33	3,124,530	0	739,757	2,384,773	0	0	0	0
Other	385	16,781,741	0	5,295,060	11,486,681	0	0	0	0
Total Likely to Settle	690	40,196,460	0	10,898,317	29,298,143	(510,559)	0	0	(510,559)
Unlikely to Settle									
PT	45	8,621,601	0	1,590,017	7,031,584	18,768,990	0	10,019,828	8,749,162
Not at MMI	33	996,314	0	169,936	826,378	6,135,812	0	1,379,953	4,755,859
Medical Maintenance	159	5,755,231	0	2,792	5,752,439	21,969,784	0	2,170,208	19,799,576
PT Pending	5	324,745	0	10,835	313,910	2,287,516	0	975,616	1,311,900
Other	149	5,584,773	0	985,170	4,599,603	20,853,529	0	4,141,898	16,711,631
Total Unlikely to Settle	391	21,282,664	0	2,758,750	18,523,914	70,015,631	0	18,687,503	51,328,128
Grand Total	2,850	140,738,921	0	48,939,421	91,799,500	144,154,655	99,989,826	42,574,488	1,590,341
Likely to settle	828	64,734,501	0	21,790,604	42,943,897	(1,001,466)	12,728,765	(4,574,238)	(9,155,993)
Unlikely to settle	551	57,176,757	0	21,391,897	35,784,860	155,199,610	43,277,909	55,909,841	56,011,860
Grand total (excl closed/cov B/resolved)	1,379	121,911,258	0	43,182,501	78,728,757	154,198,144	56,006,674	51,335,603	46,855,867

ABC INSURANCE COMPANY
Loss Reserve Model at December 31, 2000
Examples
Likely to Settle at 100% of Current Reserves with 10% medical escalation years 17-21, 6% thereafter

		5a-PT unlikely to settle	5a-PT unlikely to settle	5b-Not MMI unlikely to settle	5b-Not MMI unlikely to settle	5b-Not MMI unlikely to settle	5b-Not MMI unlikely to settle	5c-Med Main unlikely to settle
Category		2a-PT	2a-PT	3a-Not MMI	3a-Not MMI	3a-Not MMI	3a-Not MMI	2c-MMM
Fund		6666	7777	6666	8888	8888	7777	8888
FY		83	96	83	89	93	96	92
Claim #		1	2	3	4	5	6	7
Accident Month/Year		Oct-82	Sep-96	Jun-82	Sep-89	Jul-93	Mar-97	Jul-92
As Reported:								
	Medical Paid	49,492	12,306	137,493	127,445	29,176	0	180,023
	Indemnity Paid	217,958	37,976	69,505	49,189	4,758	0	47,774
	Legal/other paid	6,356	21,498	18,733	8,251	111	9,159	19,688
	Medical Reserve	50,508	32,194	30,007	100,055	4,324	10,000	48,977
	Indemnity Reserve	86,042	84,024	0	0	2,000	10,000	0
	Legal/other reserve	6,644	12,502	5,267	3,749	3,889	10,841	6,312
	Total incurred reported	417,000	200,500	261,005	288,689	44,258	40,000	302,774
	Retention-1	10,000,000	0	10,000,000	750,000	500,000	0	500,000
	Limit	10,000,000	1,000,000	10,000,000	4,750,000	1,000,000	1,000,000	1,000,000
	Percent QS	100.00%	75.00%	100.00%	100.00%	50.00%	75.00%	50.00%
	Retention-2	10,000,000	1,000,000	10,000,000	0	1,500,000	1,000,000	1,500,000
	Limit	10,000,000	10,000,000	10,000,000	0	9,000,000	10,000,000	9,000,000
	Percent QS	100.00%	100.00%	100.00%	0.00%	100.00%	100.00%	100.00%
	Ceded paid reported	0	53,835	0	0	0	6,869	0
	Ceded Incurred reported	0	150,375	0	0	0	30,000	0
	Total reserve reported	143,194	128,720	35,275	103,804	10,213	30,841	55,289
	Ceded reserve reported	0	96,540	0	0	0	23,131	0
	Net reserve reported	143,194	32,180	35,275	103,804	10,213	7,710	55,289
Maximum exposure:								
	Age	75	52	69	61	41	41	40
	Life expectancy	88	78	83	80	82	76	76
1	Remaining Months	153	308	165	228	489	419	429
2	Average monthly medical pmnts	222	224	606	917	310	0	1,698
3	Average monthly indemnity pmnts	977	690	306	354	51	0	451
4	Average monthly expense pmnts	29	391	83	59	1	183	186
5	Last 4 yrs avg monthly medical pmnts	53	153	1,685	685	8	0	1,069
6	Last 4 yrs avg monthly expense pmnts	15	433	306	24	0	191	149
	Selected annual medical average up to 8 yrs	2,663	2,685	7,268	11,002	3,725	0	20,380
	Selected annual medical average after 8 yrs	2,663	2,685	3,003	3,003	3,725	0	5,066
	Direct medical reserve override	0	0	0	0	0	0	300,000
	Maximum medical reserve	56,518	103,247	70,246	97,332	478,162	0	300,000
8=1*3	Maximum Indemnity reserve	149,541	212,665	40,417	64,548	19,803	0	0
9=1*6	Maximum expense reserve-capped at 2 x Incurred	2,231	68,000	48,000	5,515	0	40,000	0
10	Total maximum reserve	208,290	383,912	158,663	167,395	497,965	40,000	300,000
11	SDTF %	0%	0%	0%	0%	0%	0%	0%
12=7+8*11	SDTF recoverable on reserves	0	0	0	0	0	0	0
13	SDTF requests O/S on paid	0	0	0	0	0	0	0
14=12+13	Total SDTF recoverable	0	0	0	0	0	0	0
15=10-14	Gross reserves before reinsurance	208,290	383,912	158,663	167,395	497,965	40,000	300,000
16	Ceded reserves	0	287,934	0	0	15,953	30,000	14,489
17=15-16	Net maximum exposure	208,290	95,978	158,663	167,395	482,012	10,000	285,511
Difference maximum over (under) reported		65,096	63,798	123,388	63,591	471,799	2,290	230,222
Likely exposure:								
	Reserve as a % of reported if likely to settle	100%	100%	100%	100%	100%	100%	100%
	Medical reserve	56,518	103,247	70,246	97,332	478,162	0	300,000
	Indemnity reserve	149,541	212,665	40,417	64,548	19,803	0	0
	Legal/other reserve	2,231	68,000	48,000	5,515	0	40,000	0
	Total reserves	208,290	383,912	158,663	167,395	497,965	40,000	300,000
	SDTF recoverable on reserves	0	0	0	0	0	0	0
	SDTF requests O/S on paid	0	0	0	0	0	0	0
	Total SDTF recoverable	0	0	0	0	0	0	0
	Gross reserves before reinsurance	208,290	383,912	158,663	167,395	497,965	40,000	300,000
	Ceded reserves	0	287,934	0	0	15,953	30,000	14,489
	Net likely exposure	208,290	95,978	158,663	167,395	482,012	10,000	285,511
Difference likely over (under) reported		65,096	63,798	123,388	63,591	471,799	2,290	230,222

ABC INSURANCE COMPANY
Loss Reserve Model at December 31, 2000
Examples
Likely to Settle at 100% of Current Reserves with 10% medical escalation years 17-21, 6% thereafter

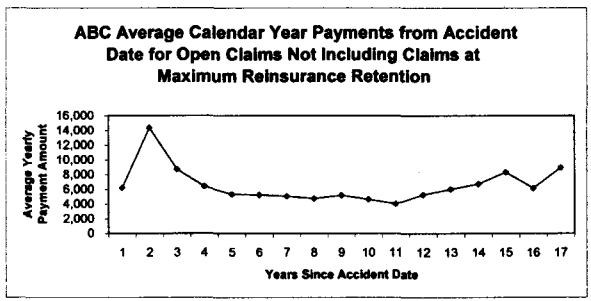
		5c-Med Main unlikely to settle	5c-Med Main unlikely to settle	5d-PT pending unlikely to settle	5d-PT pending unlikely to settle	5e-Other unlikely to settle	5e-Other unlikely to settle	5e-Other unlikely to settle
Category		2c-MMM	2c-MMM	3b-PT Pending	3b-PT Pending	3c-Other	3c-Other	3c-Other
Fund		9999	9999	8888	8888	8888	9999	7777
FY		86	86	95	94	95	95	96
Claim #		8	9	10	11	12	13	14
Accident Month/Year		Apr-87	May-87	Jun-96	Jun-94	Dec-95	Oct-95	Jul-96
As Reported:								
	Medical Paid	342,592	40,189	71,769	30,658	134,444	17,806	49,018
	Indemnity Paid	294,239	24,837	61,057	19,935	50,516	10,906	19,933
	Legal/other paid	66,044	8,208	6,430	25,841	5,613	6,567	4,956
	Medical Reserve	140,208	31,311	1,231	33,342	22,856	8,194	10,982
	Indemnity Reserve	0	0	2,943	55,065	20,784	5,094	5,067
	Legal/other reserve	14,956	6,292	905	4,159	9,387	5,983	474
	Total Incurred reported	858,039	110,837	144,335	169,000	243,600	54,550	90,431
	Retention-1	10,000,000	10,000,000	0	500,000	500,000	1,000,000	0
	Limit	10,000,000	10,000,000	1,000,000	1,000,000	1,000,000	10,000,000	1,000,000
	Percent QS	100.00%	100.00%	75.00%	50.00%	50.00%	100.00%	75.00%
	Retention-2	10,000,000	10,000,000	1,000,000	1,500,000	1,500,000	0	1,000,000
	Limit	10,000,000	10,000,000	10,000,000	9,000,000	9,000,000		10,000,000
	Percent QS	100.00%	100.00%	100.00%	100.00%	100.00%	0.00%	100.00%
	Ceded paid reported	0	0	104,442	0	0	0	55,431
	Ceded Incurred reported	0	0	108,251	0	0	0	67,823
	Total reserve reported	155,164	37,604	5,080	92,566	53,027	19,271	16,523
	Ceded reserve reported	0	0	3,810	0	0	0	12,393
	Net reserve reported	155,164	37,604	1,270	92,566	53,027	19,271	4,130
Maximum exposure:								
	Age	66	42	40	37	51	40	41
	Life expectancy	82	82	82	75	77	82	76
1	Remaining Months	188	478	500	461	318	500	419
2	Average monthly medical pmnts	2,027	239	1,237	374	2,101	266	845
3	Average monthly indemnity pmnts	1,741	148	1,053	243	789	163	344
4	Average monthly expense pmnts	391	49	111	315	88	98	85
5	Last 4 yrs avg monthly medical pmnts	770	55	766	178	596	4	257
6	Last 4 yrs avg monthly expense pmnts	15	0	134	448	117	44	103
	Selected annual medical average up to 8 yrs	24,326	2,871	14,849	4,486	25,208	3,189	10,142
	Selected annual medical average after 8 yrs	3,003	2,871	5,403	4,466	4,912	3,189	5,403
	Direct medical reserve override	0	0	0	0	250,000	0	0
	Maximum medical reserve	82,746	496,658	652,087	465,926	250,000	382,772	416,289
8=1*3	Maximum Indemnity reserve	0	0	421,080	89,659	0	0	0
9=1*6	Maximum expense reserve-capped at 2 x Incurred	0	0	14,671	60,000	30,000	22,200	10,861
10	Total maximum reserve	82,746	496,658	1,087,838	615,585	280,000	404,972	427,150
11	SDTF %	0%	0%	0%	0%	0%	0%	0%
12=7+8*11	SDTF recoverable on reserves	0	0	0	0	0	0	0
13	SDTF requests O/S on paid	0	0	0	0	0	0	0
14=12+13	Total SDTF recoverable	0	0	0	0	0	0	0
15=10-14	Gross reserves before reinsurance	82,746	496,658	1,087,838	615,585	280,000	404,972	427,150
16	Ceded reserves	0	0	855,138	60,815	0	0	320,363
17=15-16	Net maximum exposure	82,746	496,658	232,700	554,770	280,000	404,972	106,787
Difference maximum over (under) reported		-72,418	459,054	231,430	462,204	226,973	385,701	102,657
Likely exposure:								
	Reserve as a % of reported if likely to settle	100%	100%	100%	100%	100%	100%	100%
	Medical reserve	82,746	496,658	652,087	465,926	250,000	382,772	416,289
	Indemnity reserve	0	0	421,080	89,659	0	0	0
	Legal/other reserve	0	0	14,671	60,000	30,000	22,200	10,861
	Total reserves	82,746	496,658	1,087,838	615,585	280,000	404,972	427,150
	SDTF recoverable on reserves	0	0	0	0	0	0	0
	SDTF requests O/S on paid	0	0	0	0	0	0	0
	Total SDTF recoverable	0	0	0	0	0	0	0
	Gross reserves before reinsurance	82,746	496,658	1,087,838	615,585	280,000	404,972	427,150
	Ceded reserves	0	0	855,138	60,815	0	0	320,363
	Net likely exposure	82,746	496,658	232,700	554,770	280,000	404,972	106,787
Difference likely over (under) reported		-72,418	459,054	231,430	462,204	226,973	385,701	102,657

ABC Insurance Company

Medical Payments-Claims Open With Exposure Excluding Maximum Retention

Average Paid Using a 6% Annual Inflation Rate to get All Years to 1997 Values

Acc Yr	# Claims	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12	Year 13	Year 14	Year 15	Year 16	Year 17
1984	20	4,761	10,283	11,450	7,029	9,191	7,326	6,550	7,916	13,764	8,737	3,732	5,120	6,354	6,632	6,856	8,676	8,944
1985	25	4,894	15,420	12,879	11,529	6,384	10,707	5,524	3,845	4,563	3,195	3,737	4,278	2,543	4,246	4,158	4,166	
1986	39	3,283	13,363	10,950	9,773	11,719	9,827	5,092	3,897	4,080	2,821	4,507	4,138	7,460	6,607	11,777		
1987	58	5,811	21,762	16,091	12,790	7,915	5,980	4,665	6,271	4,801	4,476	3,530	5,147	5,763	7,987			
1988	75	8,353	23,677	13,620	10,519	5,536	3,782	2,488	3,666	3,988	6,251	4,695	5,101	6,506				
1989	87	5,328	13,738	9,647	6,888	6,890	4,956	4,694	4,635	5,737	5,177	4,656	6,323					
1990	74	6,414	15,580	8,519	3,566	3,032	3,852	2,633	3,709	4,633	3,767	2,894						
1991	90	6,577	14,121	7,436	4,825	4,929	3,832	4,931	4,358	4,047	3,923							
1992	53	6,287	11,689	7,113	5,927	6,683	6,355	7,963	6,021	6,879								
1993	80	5,885	12,298	6,510	6,632	5,376	5,456	4,427	5,242									
1994	147	6,970	12,659	9,912	5,895	4,925	4,490	7,097										
1995	224	6,903	12,548	7,971	4,945	4,101	5,297											
1996	276	5,746	14,042	6,155	5,554	4,694												
1997	1	39	8,888	57	14,006													
Weighted Avg	1,249	6,241	14,355	8,736	6,408	5,340	5,256	5,069	4,748	5,176	4,648	4,021	5,269	6,008	6,758	8,338	6,171	8,944



ABC Insurance Company

Medical Payments-Claims Open With Exposure Excluding Maximum Retention - Medical Escalation at 6% Beginning with Year 17

Average Paid

Acc Yr	# Claims	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12	Year 13	Year 14	Year 15	Year 16	Year 17	Year 18	Year 19	Year 20	Year 21	Year 22	Yr 23
1979	1					111	591	514	640	816	829	904	893	755	179	1,252	366	1,095	1,089	417	891	395	1,110	4,516
1980	2					9,789	5,001	4,111	5,111	5,576	3,705	7,977	1,958	6,412	7,104	2,234	4,266	32,085	9,017	12,954	1,416	2,864	4,260	4,516
1981	6					2,383	3,627	1,834	1,204	1,850	681	918	799	860	1,585	2,291	1,044	1,192	975	1,670	3,972	4,019	4,260	4,516
1982	7					4,753	1,776	3,407	1,834	1,948	1,237	8,634	4,155	1,085	3,430	7,373	10,758	3,419	4,581	6,502	3,792	4,019	4,260	4,516
1983	9					5,183	3,676	2,017	5,267	4,080	1,543	7,842	2,402	1,909	2,134	7,980	1,850	6,796	13,846	3,577	3,792	4,019	4,260	4,516
1984	20					4,309	3,435	3,071	3,711	6,453	4,096	1,750	2,400	2,979	3,109	3,214	4,068	4,193	3,374	3,577	3,792	4,019	4,260	4,516
1985	25					3,173	5,321	2,745	1,911	2,268	1,588	1,857	2,126	1,264	2,110	2,066	2,070	3,183	3,374	3,577	3,792	4,019	4,260	4,516
1986	39					6,174	5,177	2,683	2,053	2,149	1,486	2,374	2,180	3,930	3,480	6,204	3,003	3,183	3,374	3,577	3,792	4,019	4,260	4,516
1987	58					4,420	3,339	2,605	3,502	2,681	2,499	1,971	2,874	3,218	4,460	3,003	3,003	3,183	3,374	3,577	3,792	4,019	4,260	4,516
1988	75					3,277	2,238	1,472	2,170	2,360	3,700	2,779	3,019	3,851	3,003	3,003	3,003	3,183	3,374	3,577	3,792	4,019	4,260	4,516
1989	67					4,323	3,109	2,945	2,908	3,599	3,246	2,821	3,967	3,003	3,003	3,003	3,003	3,183	3,374	3,577	3,792	4,019	4,260	4,516
1990	74					2,016	2,562	1,751	2,467	3,061	2,506	1,925	3,003	3,003	3,003	3,003	3,003	3,183	3,374	3,577	3,792	4,019	4,260	4,516
1991	90					3,474	2,702	3,476	3,072	2,853	2,765	3,003	3,003	3,003	3,003	3,003	3,003	3,183	3,374	3,577	3,792	4,019	4,260	4,516
1992	53					4,994	4,748	5,951	4,499	5,140	5,066	5,066	5,066	5,066	5,066	5,066	5,066	5,370	5,693	6,034	6,396	6,780	7,187	7,618
1993	80					4,258	4,322	3,506	4,153	4,060	4,060	4,060	4,060	4,060	4,060	4,060	4,060	4,303	4,562	4,835	5,125	5,433	5,759	6,104
1994	147					4,135	3,770	5,959	4,303	4,303	4,303	4,303	4,303	4,303	4,303	4,303	4,303	4,562	4,835	5,125	5,433	5,759	6,104	6,471
1995	224					3,650	4,714	4,562	4,562	4,562	4,562	4,562	4,562	4,562	4,562	4,562	4,562	4,562	4,835	5,125	5,433	5,759	6,104	6,471	6,859
1996	276					4,428	4,835	4,835	4,835	4,835	4,835	4,835	4,835	4,835	4,835	4,835	4,835	4,835	5,125	5,433	5,759	6,104	6,471	6,859	7,270
1997	1					5,125	5,125	5,125	5,125	5,125	5,125	5,125	5,125	5,125	5,125	5,125	5,125	5,433	5,759	6,104	6,471	6,859	7,270	7,707

Accident Year	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
True Average Up to Year N=16	837	5,270	1,573	4,183	3,809	3,550	2,375	3,445	3,157	2,783	3,378	2,330	3,057	5,066	4,060	4,621	4,182	4,428	N/A
Selected Starting Value	3,003	3,003	3,003	3,003	3,003	3,003	3,003	3,003	3,003	3,003	3,003	3,003	3,003	5,066	4,060	4,303	4,562	4,835	5,125

Notes: Calendar Years 24 onward Equals (Yr N-1)*1.06
Weighted Calendar Year average of Accident Years 1979-1991 equals 3,003
Accident Years 1994 onward apply 6% trend from the 1993 Accident Year

ABC Insurance Company

Medical Payments-Claims Open With Exposure Excluding Maximum Retention - Medical Escalation at 10% Beginning with Year 17

Average Paid

Acc Yr	# Claims Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Year 1	Year 1	Year 14	Year 15	Year 16	Year 17	Year 18	Year 19	Year 20	Year 21	Year 22	Yr 23
1979	1				111	591	514	640	816	629	904	893	755	179	1,252	366	1,095	1,089	417	891	395	1,110	5,852
1980	2				9,789	5,001	4,111	5,111	5,576	3,705	7,977	1,958	6,412	7,104	2,234	4,266	32,065	9,017	12,954	1,416	2,664	5,320	5,852
1981	6				2,383	3,627	1,834	1,204	1,650	681	918	799	860	1,585	2,291	1,044	1,192	975	1,670	3,972	4,837	5,320	5,852
1982	7				4,753	1,776	3,407	1,634	1,948	1,237	8,634	4,155	1,085	3,430	7,373	10,758	3,419	4,581	6,502	4,397	4,837	5,320	5,852
1983	9				5,183	3,676	2,017	5,287	4,090	1,543	7,642	2,402	1,909	2,134	7,980	1,850	6,796	13,846	3,997	4,397	4,837	5,320	5,852
1984	20				4,309	3,435	3,071	3,711	6,453	4,096	1,750	2,400	2,979	3,109	3,214	4,068	4,193	3,634	3,997	4,397	4,837	5,320	5,852
1985	25				3,173	5,321	2,745	1,911	2,268	1,588	1,857	2,126	1,264	2,110	2,066	2,070	3,304	3,634	3,997	4,397	4,837	5,320	5,852
1986	39				6,174	5,177	2,683	2,053	2,149	1,486	2,374	2,180	3,930	3,480	6,204	3,003	3,304	3,634	3,997	4,397	4,837	5,320	5,852
1987	58				4,420	3,339	2,605	3,502	2,681	2,499	1,971	2,874	3,218	4,460	3,003	3,003	3,304	3,634	3,997	4,397	4,837	5,320	5,852
1988	75				3,277	2,239	1,472	2,170	2,360	3,700	2,779	3,019	3,851	3,003	3,003	3,003	3,304	3,634	3,997	4,397	4,837	5,320	5,852
1989	87				4,323	3,109	2,945	2,908	3,599	3,248	2,921	3,967	3,003	3,003	3,003	3,003	3,304	3,634	3,997	4,397	4,837	5,320	5,852
1990	74				2,016	2,562	1,751	2,467	3,081	2,506	1,925	3,003	3,003	3,003	3,003	3,003	3,304	3,634	3,997	4,397	4,837	5,320	5,852
1991	90				3,474	2,702	3,476	3,072	2,853	2,765	3,003	3,003	3,003	3,003	3,003	3,003	3,304	3,634	3,997	4,397	4,837	5,320	5,852
1992	53				4,994	4,748	5,951	4,499	5,140	5,066	5,066	5,066	5,066	5,066	5,066	5,066	5,573	6,130	6,743	7,418	8,160	8,976	9,873
1993	80				4,258	4,322	3,506	4,153	4,060	4,060	4,060	4,060	4,060	4,060	4,060	4,060	4,466	4,912	5,403	5,944	6,538	7,192	7,911
1994	147				4,135	3,770	5,959	4,466	4,466	4,466	4,466	4,466	4,466	4,466	4,466	4,466	4,912	5,403	5,944	6,538	7,192	7,911	8,702
1995	224				3,650	4,714	4,912	4,912	4,912	4,912	4,912	4,912	4,912	4,912	4,912	4,912	5,403	5,944	6,538	7,192	7,911	8,702	9,573
1996	276				4,428	5,403	5,403	5,403	5,403	5,403	5,403	5,403	5,403	5,403	5,403	5,403	5,944	6,538	7,192	7,911	8,702	9,573	10,530
1997	1				5,944	5,944	5,944	5,944	5,944	5,944	5,944	5,944	5,944	5,944	5,944	5,944	6,538	7,192	7,911	8,702	9,573	10,530	11,583

Accident Year	**1979**	**1980**	**1981**	**1982**	**1983**	**1984**	**1985**	**1986**	**1987**	**1988**	**1989**	**1990**	**1991**	**1992**	**1993**	**1994**	**1995**	**1996**	**1997**
True Average Up to Year N=16	637	5,270	1,573	4,183	3,809	3,550	2,375	3,445	3,157	2,763	3,378	2,330	3,057	5,066	4,060	4,621	4,182	4,428	N/A
Selected Starting Value	3,003	3,003	3,003	3,003	3,003	3,003	3,003	3,003	3,003	3,003	3,003	3,003	3,003	5,066	4,060	4,466	4,912	5,403	5,944

Notes: Calendar Years 24 onward Equals (Yr N-1)*1.10
Weighted Calendar Year average of Accident Years 1979-1991 equals 3,003
Accident Years 1994 onward apply 10% trend from the 1993 Accident Year

ABC Insurance Company

Medical Payments-Claims Open With Exposure Excluding Maximum Retention - Medical Escalation at 10% Years 17-21, 6% thereafter

Average Paid

Acc Yr	# Claims	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12	Year 13	Year 14	Year 15	Year 16	Year 17	Year 18	Year 19	Year 20	Year 21	Year 22	Yr 23
1979	1					111	591	514	640	816	629	904	893	755	179	1,252	366	1,095	1,089	417	891	395	1,110	5,435
1980	2					9,789	5,001	4,111	5,111	5,576	3,705	7,977	1,958	6,412	7,104	2,234	4,266	32,065	9,017	12,954	1,416	2,664	5,127	5,435
1981	6					2,383	3,627	1,834	1,204	1,650	681	918	799	860	1,585	2,291	1,044	1,192	975	1,670	3,972	4,837	5,127	5,435
1982	7					4,753	1,776	3,407	1,634	1,948	1,237	8,634	4,155	1,085	3,430	7,373	10,758	3,419	4,581	6,502	4,397	4,837	5,127	5,435
1983	9					5,183	3,676	2,017	5,287	4,090	1,543	7,642	2,402	1,909	2,134	7,980	1,850	6,796	13,846	3,997	4,397	4,837	5,127	5,435
1984	20					4,309	3,435	3,071	3,711	6,453	4,096	1,750	2,400	2,979	3,109	3,214	4,068	4,193	3,634	3,997	4,397	4,837	5,127	5,435
1985	25					3,173	5,321	2,745	1,911	2,268	1,588	1,857	2,126	1,264	2,110	2,066	2,070	3,304	3,634	3,997	4,397	4,837	5,127	5,435
1986	39					6,174	5,177	2,683	2,053	2,149	1,486	2,374	2,180	3,930	3,480	6,204	3,003	3,304	3,634	3,997	4,397	4,837	5,127	5,435
1987	58					4,420	3,339	2,605	3,502	2,681	2,499	1,971	2,874	3,218	4,460	3,003	3,003	3,304	3,634	3,997	4,397	4,837	5,127	5,435
1988	75					3,277	2,239	1,472	2,170	2,360	3,700	2,779	3,019	3,851	3,003	3,003	3,003	3,304	3,634	3,997	4,397	4,837	5,127	5,435
1989	87					4,323	3,109	2,945	2,908	3,599	3,248	2,921	3,967	3,003	3,003	3,003	3,003	3,304	3,634	3,997	4,397	4,837	5,127	5,435
1990	74					2,016	2,562	1,751	2,467	3,081	2,506	1,925	3,003	3,003	3,003	3,003	3,003	3,304	3,634	3,997	4,397	4,837	5,127	5,435
1991	90					3,474	2,702	3,476	3,072	2,853	2,765	3,003	3,003	3,003	3,003	3,003	3,003	3,304	3,634	3,997	4,397	4,837	5,127	5,435
1992	53					4,994	4,748	5,951	4,499	5,140	5,066	5,066	5,066	5,066	5,066	5,066	5,066	5,573	6,130	6,743	7,418	8,160	8,649	9,168
1993	80					4,258	4,322	3,506	4,153	4,060	4,060	4,060	4,060	4,060	4,060	4,060	4,060	4,466	4,912	5,403	5,944	6,538	6,931	7,346
1994	147					4,135	3,770	5,959	4,466	4,466	4,466	4,466	4,466	4,466	4,466	4,466	4,466	4,912	5,403	5,944	6,538	7,192	7,624	8,081
1995	224					3,650	4,714	4,912	4,912	4,912	4,912	4,912	4,912	4,912	4,912	4,912	4,912	5,403	5,944	6,538	7,192	7,911	8,386	8,889
1996	276					4,428	5,403	5,403	5,403	5,403	5,403	5,403	5,403	5,403	5,403	5,403	5,403	5,944	6,538	7,192	7,911	8,702	9,225	9,778
1997	1					5,944	5,944	5,944	5,944	5,944	5,944	5,944	5,944	5,944	5,944	5,944	5,944	6,538	7,192	7,911	8,702	9,573	10,147	10,756

Accident Year	**1979**	**1980**	**1981**	**1982**	**1983**	**1984**	**1985**	**1986**	**1987**	**1988**	**1989**	**1990**	**1991**	**1992**	**1993**	**1994**	**1995**	**1996**	**1997**
True Average Up to Year N=16	637	5,270	1,573	4,183	3,809	3,550	2,375	3,445	3,157	2,763	3,378	2,330	3,057	5,066	4,060	4,621	4,182	4,428	N/A
Selected Starting Value	3,003	3,003	3,003	3,003	3,003	3,003	3,003	3,003	3,003	3,003	3,003	3,003	3,003	5,066	4,060	4,466	4,912	5,403	5,944

Notes: Calendar Years 24 onward Equals (Yr N-1)*1.06
Weighted Calendar Year average of Accident Years 1979-1991 equals 3,003
Accident Years 1994 onward apply 10% trend from the 1993 Accident Year

ABC INSURANCE COMPANY **Appendix C**

Sample Calculation of Permanent Total Claims with Supplemental Indemnity Reserves **Exhibit 8**

Loss Amounts in ($Actual)

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Claimant	Accident Date	Remaining Months	Average Monthly Indemnity Payment	Average Weekly Indemnity Payment	Maximum Exposure Indemnity Reserve	Maximum Weekly	Beginning Base Weekly	Permanent Total Reserves With Supplemental Indemnity	Addition To/ (Subtraction from) Indemnity Max Exposure
				=(4)*12/52	=(3)*(4)	(A)	(A)	(B)	=(9)-(6)
Claim 1	08/28/86	223	2,028	468	452,331	315	315	304,395	(147,936)
Claim 2	11/13/92	526	604	139	317,609	409	113	648,666	331,057
Claim 3	10/14/95	350	1,912	441	669,102	453	322	684,258	15,156
Claim 4	02/22/95	412	1,060	245	436,877	453	320	807,407	370,530
Claim 5	11/07/94	549	1,498	346	822,133	444	271	1,042,568	220,435
Claim 6	04/07/94	360	1,473	340	530,359	444	221	645,906	115,547
Claim 7	10/20/89	432	1,694	391	732,011	362	362	677,664	(54,347)
Claim 8	10/23/91	292	1,796	415	524,552	392	293	496,011	(28,541)
Claim 9	02/01/95	183	1,532	353	280,285	453	352	359,229	78,944
Claim 10	10/08/81	321	1,160	268	372,354	228	228	317,148	(55,206)
Claim 11	12/23/85	216	1,599	369	345,285	307	233	287,352	(57,933)
Claim 12	04/06/92	350	1,414	326	494,767	409	227	607,585	112,818
Claim 13	10/04/94	412	1,206	278	497,024	444	186	684,547	187,522
Claim 14	12/05/91	360	1,515	350	545,479	392	207	592,463	46,983

Notes: **(A) Determined by Florida Statute**

(B) Uses Beginning Base Weekly from Column 8 and adds in an additional 5% of Column 8 yearly until the Maximum Weekly in Column 7 is reached. Procedure is applied for the remaining number of months in Column 3.

ABC INSURANCE COMPANY

Settled/Closed Claim Percentages of Reserved Amounts by Calendar Year of Closing

Loss Amounts in ($Actual)

Calendar Year	(1) Incurred at 24 months Before Closing	(2) Incurred at 12 months Before Closing	(3) Incurred at Closing Date	(4) Percent of 24 months at Closing (3)/(1)	(5) Percent of 12 months at Closing (3)/(2)
1999	129,305,963	138,569,339	115,155,115	89.1%	83.1%
2000	147,518,866	154,698,957	137,018,707	92.9%	88.6%
Total	276,824,829	293,268,296	252,173,822	91.1%	86.0%
Selected Closing Percentage of Settleable Claims					100.0%

Calculation of Subrogation Recovery -

Appendix D

ABC INSURANCE COMPANY **Appendix D**

RESERVE ANALYSIS AS OF 12/31/00 (In $000s) **Exhibit 1**

SUBROGATION

PAID SUBROGATION/PAID LOSS DEVELOPMENT METHOD

Accident Year	Pd Subro/ Paid Loss	Pd Subro/ Paid Loss Factor	Ultimate Pd Subro/ Paid Loss	Gross Paid Ind & Med Losses @12/31/00	Industry Paid CDF	Indicated Ultimate Ind & Med Losses
(1)	(2)	(3)	(4) = [(2) x (3)]	(5)	(6)	(7) = [(5) x (6)]
1979	0.100	1.000	0.100	$1,167	1.046	$1,221
1980	0.141	0.971	0.137	4,075	1.058	4,311
1981	0.056	0.961	0.054	10,802	1.073	11,590
1982	0.073	0.952	0.070	19,765	1.088	21,504
1983	0.039	0.945	0.037	22,475	1.108	24,902
1984	0.052	0.939	0.049	40,801	1.128	46,023
1985	0.017	0.931	0.016	52,305	1.151	60,203
1986	0.015	0.926	0.014	66,271	1.175	77,868
1987	0.016	0.915	0.015	87,262	1.204	105,064
1988	0.015	0.906	0.014	96,777	1.233	119,326
1989	0.025	0.903	0.022	116,924	1.268	148,259
1990	0.011	0.900	0.010	126,998	1.308	166,113
1991	0.015	0.904	0.014	133,157	1.350	179,762
1992	0.013	0.898	0.011	159,938	1.399	223,753
1993	0.018	0.918	0.016	206,041	1.452	299,171
1994	0.023	0.917	0.021	204,997	1.515	310,570
1995	0.021	0.934	0.019	191,639	1.593	305,281
1996	0.024	0.989	0.023	172,200	1.703	293,257
1997	0.009	1.033	0.010	19,733	1.889	37,276

(8) All Year Weighted Average of Paid Subro to Paid Losses using Column (7) as weights: 0.019

(9) Selected Ultimate Ratio of Paid Subro to Paid Losses: 0.019

ABC INSURANCE COMPANY
RESERVE ANALYSIS AS OF 12/31/00 (In $000s)

Appendix D
Exhibit 2

ABC RECEIVED SUBROGATION/ PAID LOSS

Accident Year	12	24	36	48	60	72	84	96	108	120	132	144	156	168	180	192	204	216	228	240	252	264	Received Subro to Paid Loss @12/31/00
1979						0.168	0.167	0.161	0.163	0.152	0.148	0.145	0.143	0.140	0.132	0.128	0.125	0.122	0.103	0.102	0.101	0.100	0.100
1980					0.036	0.044	0.044	0.043	0.031	0.030	0.030	0.030	0.034	0.095	0.108	0.117	0.131	0.142	0.141	0.141	0.141		0.141
1981	0.001	0.003	0.006	0.028	0.049	0.062	0.061	0.061	0.060	0.059	0.055	0.059	0.059	0.058	0.058	0.059	0.057	0.057	0.057	0.056			0.056
1982	0.004	0.005	0.039	0.057	0.063	0.065	0.071	0.075	0.077	0.076	0.074	0.075	0.075	0.074	0.077	0.076	0.075	0.075	0.073				0.073
1983	0.004	0.007	0.015	0.016	0.022	0.025	0.033	0.037	0.040	0.039	0.040	0.040	0.040	0.040	0.040	0.039	0.039	0.039					0.039
1984	0.004	0.007	0.014	0.022	0.026	0.028	0.035	0.038	0.054	0.053	0.052	0.052	0.051	0.051	0.050	0.053	0.052						0.052
1985	0.002	0.006	0.008	0.009	0.010	0.012	0.015	0.014	0.017	0.017	0.017	0.017	0.018	0.017	0.017	0.017							0.017
1986	0.001	0.006	0.008	0.010	0.015	0.016	0.017	0.017	0.017	0.016	0.016	0.016	0.016	0.016	0.015								0.015
1987	0.002	0.008	0.009	0.011	0.015	0.016	0.016	0.017	0.017	0.017	0.016	0.016	0.016	0.016									0.016
1988	0.003	0.005	0.008	0.010	0.011	0.012	0.012	0.013	0.012	0.015	0.016	0.015	0.015										0.015
1989	0.002	0.010	0.010	0.011	0.012	0.013	0.014	0.014	0.023	0.024	0.024	0.025											0.025
1990	0.003	0.005	0.007	0.008	0.011	0.011	0.011	0.011	0.011	0.011	0.011												0.011
1991	0.003	0.007	0.010	0.011	0.015	0.015	0.015	0.015	0.016	0.015													0.015
1992	0.002	0.008	0.010	0.011	0.012	0.012	0.013	0.013	0.013														0.013
1993	0.005	0.010	0.015	0.016	0.017	0.018	0.018	0.018															0.018
1994	0.005	0.016	0.017	0.019	0.020	0.021	0.023																0.023
1995	0.042	0.041	0.041	0.044	0.021	0.021																	0.021
1996	0.000	0.026	0.027	0.018	0.024																		0.024
1997	0.006	0.007	0.010	0.009																			0.009

ABC INSURANCE COMPANY
RESERVE ANALYSIS AS OF 12/31/00 (In $000s)

ABC RECEIVED SUBROGATION/PAID DEVELOPMENT FACTORS

Accident Year	12 24	24 36	36 48	48 60	60 72	72 84	84 96	96 108	108 120	120 132	132 144	144 156	156 168	168 180	180 192	192 204	204 216	216 228	228 240	240 252	252 264	264 ULT
1979						0.995	0.962	1.013	0.932	0.976	0.977	0.987	0.978	0.943	0.971	0.981	0.971	0.843	0.990	0.991	0.995	
1980					1.223	1.007	0.962	0.715	0.988	0.985	0.994	1.151	2.793	1.136	1.082	1.118	1.091	0.993	0.995	0.999		
1981	5.831	1.853	4.806	1.711	1.279	0.983	0.994	0.982	0.992	0.922	1.081	0.998	0.987	0.992	1.014	0.977	0.999	0.995	0.992			
1982	1.487	7.422	1.441	1.118	1.025	1.091	1.051	1.038	0.986	0.971	1.016	0.997	0.988	1.040	0.982	0.995	0.989	0.981				
1983	1.977	2.033	1.112	1.367	1.122	1.332	1.104	1.103	0.968	1.010	1.003	1.000	1.016	0.987	0.990	0.990	0.992					
1984	1.907	1.952	1.619	1.182	1.099	1.222	1.088	1.429	0.986	0.980	0.988	0.998	0.981	0.982	1.063	0.988						
1985	3.504	1.296	1.080	1.143	1.188	1.229	0.977	1.209	0.983	0.991	0.994	1.046	0.988	0.989	0.994							
1986	3.958	1.347	1.236	1.530	1.076	1.044	1.014	0.987	0.985	0.972	0.994	0.990	0.993	0.990								
1987	3.100	1.228	1.143	1.406	1.071	1.016	1.005	1.015	0.986	0.990	0.999	0.993	0.999									
1988	2.020	1.561	1.305	1.037	1.108	1.019	1.031	0.991	1.215	1.023	0.994	0.988										
1989	4.784	1.032	1.098	1.045	1.132	1.026	1.013	1.671	1.026	1.007	1.034											
1990	2.107	1.239	1.228	1.332	1.048	0.989	0.997	0.982	0.993	0.989												
1991	2.425	1.499	1.067	1.367	0.996	1.001	0.983	1.067	0.993													
1992	3.307	1.299	1.106	1.062	1.060	1.010	1.008	1.010														
1993	2.186	1.413	1.055	1.077	1.046	1.040	0.978															
1994	3.337	1.093	1.100	1.049	1.059	1.072																
1995	0.979	0.998	1.064	0.486	0.967																	
1996	298.933	1.028	0.658	1.343																		
1997	1.198	1.317	0.979																			

	12 24	24 36	36 48	48 60	60 72	72 84	84 96	96 108	108 120	120 132	132 144	144 156	156 168	168 180	180 192	192 204	204 216	216 228	228 240	240 252	252 264	TAIL
Average	20.179	1.742	1.359	1.203	1.094	1.067	1.011	1.087	1.003	0.985	1.007	1.015	1.191	1.007	1.014	1.008	1.008	0.953	0.992	0.995	0.995	
3 Yr Avg	100.370	1.114	0.900	0.959	1.024	1.041	0.989	1.019	1.004	1.006	1.009	0.990	0.993	0.987	1.016	0.991	0.993	0.990	0.992			
All Yr Ex Hi/Lo	2.875	1.413	1.176	1.218	1.089	1.054	1.008	1.069	0.990	0.987	1.002	1.001	0.993	0.997	1.009	0.988	0.993	0.987	0.992			
5 Yr Ex Hi/Lo	2.240	1.146	1.033	1.062	1.033	1.017	0.996	1.022	1.004	0.995	0.996	0.994	0.993	0.989	0.999	0.991	0.993					

Selected:	12 24	24 36	36 48	48 60	60 72	72 84	84 96	96 108	108 120	120 132	132 144	144 156	156 168	168 180	180 192	192 204	204 216	216 228	228 240	240 252	252 264	264
Age-to-Age	1.552	1.098	1.068	1.044	1.059	1.018	0.999	1.023	0.993	1.004	0.997	0.997	0.990	0.988	0.994	0.992	0.993	0.993	0.990	0.990	0.971	1.000
Age-to-Ult	1.881	1.212	1.104	1.033	0.989	0.934	0.917	0.918	0.898	0.904	0.900	0.903	0.906	0.915	0.926	0.931	0.939	0.945	0.952	0.961	0.971	1.000

Calculation of New/Reopened Claims Provision -

Appendix E

ABC INSURANCE COMPANY
Calculation of IBNR for New and Reopened Claims
Loss Amounts in ($Actual)

	(1)	(2)	(3)	(4)	
Month	Calendar Year 1997	Calendar Year 1998	Calendar Year 1999	Calendar Year 2000	
January	99,792	168,117	68,147	204,587	
February	90,070	164,825	202,870	24,897	
March	131,895	149,756	339,573	82,909	
April	133,177	291,399	152,243	157,368	
May	157,488	147,232	123,982	73,755	
June	147,861	153,989	138,025	73,505	
July	181,954	189,706	86,777	39,136	
August	90,307	197,846	186,403	96,632	
September	110,346	163,048	80,604	222,456	
October	97,915	79,213	137,785		
November	140,764	153,355	140,633		
December	153,168	124,010	477,944		
					Yearly Change
Total	1,534,737	1,982,496	2,134,986	975,245	
Average	127,895	165,208	177,916	108,361	5.85%
Avg. Ex Hi Lo	126,271	161,188	158,890	103,985	6.82%
Median	132,536	158,519	139,329	82,909	15.68%
Selected	132,536	158,519	139,329	82,909	15.68%

Calculation of IBNR associated with New and Reopened Claims=

(A):	Average Monthly Payment for Current Year:	108,361
(B):	Average Yearly Payment for Current Year equals (A)*12:	1,300,327
(C):	Selected Average Yearly Decrease in Amount:	15.68%
(D):	Ultimate IBNR for New and Reopened equals (B)/(C)-(B):	6,991,030

Calculation of IBNR Amounts Exceeding Reinsurance Limits -

Appendix F

ABC Insurance Company **Appendix F**
Calculation of IBNR Amounts Exceeding Reinsurance Limits **Exhibit 1**

Individual Claimants with Projected Payments In Excess of Maximum Reinsurance

Claimant	Age (x)	Of 100,000 Born Alive: Number Living at Beginning of Age (x)	Of 100,000 Born Alive: Number Living at Beginning of Age (95)	Likelihood of Survival to Age (95)	Estimated Payments In Excess of Maximum Reinsurance If Alive at Age (95)	Estimated Payment by ABC
(1)	(2)	(3)	(4)	(5) = (4) / (3)	(6)	(7) = (5) x (6)
Female	38	96,891	10,914	0.1126	$5,185,665	$584,124
Male 1	56	84,009	3,799	0.0452	1,184,982	53,586
Male 2	40	92,957	3,799	0.0409	679,902	27,786
Total						$665,497

Sample ULAE Calculations -

Appendix G

ABC INSURANCE COMPANY **Appendix G**

Calculation of Unallocated Loss Adjustment Expense using Best's Aggregates and Averages **Exhibit 1**

Loss Amounts in ($000's)

Accident Year	(1) Direct and Assumed Case Loss (A)	(2) Direct and Assumed IBNR Loss (B)	(3) Direct and Assumed Case ALAE (C)	(4) Direct and Assumed IBNR ALAE (D)	(5) Direct and Assumed IBNR ULAE (E)	(6) ULAE Reserve % of Loss +ALAE Reserve (F)	(7) ULAE Reserve % of IBNR Reserve (G)	(8) ABC Total Reserve	(9) ABC Booked IBNR	(10) Method 1 ULAE Reserve (6)*(8)	(11) Method 2 ULAE Reserve (7)*(9)
Prior	16,136,790	7,178,145	274,816	692,260	485,310						
1991	2,238,712	1,395,334	38,431	167,273	105,387						
1992	2,117,601	1,491,083	38,189	191,619	117,342						
1993	2,021,196	1,500,264	34,860	221,699	112,556						
1994	2,032,807	1,579,728	46,547	238,468	130,070						
1995	2,259,525	1,773,433	49,026	281,701	161,427						
1996	2,507,057	1,965,472	74,280	334,622	192,902						
1997	3,374,262	2,225,059	110,670	442,325	236,765						
1998	5,009,899	2,995,728	193,847	645,373	368,768						
1999	7,106,790	4,874,449	297,310	989,744	591,015						
2000	8,458,321	10,353,546	390,735	1,498,737	1,195,736						
Total	53,262,960	37,332,241	1,548,711	5,703,821	3,697,278	3.8%	8.6%				
Ex. 98-00	32,687,950	19,108,518	666,819	2,569,967	1,541,759	2.8%	7.1%	161,388	69,588	4,521	4,949

(A): Based on 2001 Best's Aggregates and Averages Schedule P - Part 1D, Column (13)
(B): Based on 2001 Best's Aggregates and Averages Schedule P - Part 1D, Column (15)
(C): Based on 2001 Best's Aggregates and Averages Schedule P - Part 1D, Column (17)
(D): Based on 2001 Best's Aggregates and Averages Schedule P - Part 1D, Column (19)
(E): Based on 2001 Best's Aggregates and Averages Schedule P - Part 1D, Column (21)
(F): =(5)/((1)+(2)+(3)+(4))
(G): =(5)/((2)+(4))

ABC INSURANCE COMPANY

Calculation of Unallocated Loss Adjustment Expense using TPA Payment Schedule

Loss Amounts in ($000's)

Appendix G

Exhibit 2

Calendar Year	Estimated TPA ULAE Payment Schedule	Percentage Increase/ (Decrease)
1995	4,876	
1996	3,704	-24.0%
1997	2,841	-23.3%
1998	2,064	-27.3%
1999	1,575	-23.7%
2000	1,106	-29.8%

Selected Increase/(Decrease)	-25.0%
ULAE Factor = (1.0/25%)	4.00
Selected ULAE = (Factor-1.0)*(2000 Yr Paid Amount)	3,318

ABC INSURANCE COMPANY

Calculation of Unallocated Loss Adjustment Expense using Calendar Year Payments

Loss Amounts in ($000's)

	(1)	(2)	(3)	(4)	(5)	(6)
Calendar Year	Direct and Assumed Loss and ALAE	Paid ULAE	Paid ULAE/ Paid Loss Ratio	ABC Total Reserve	ABC IBNR	ABC Case Reserve
	(A)	(A)	(2)/(1)			(4)-(5)
1995	4,876	204	4.2%			
1996	3,704	165	4.5%			
1997	2,841	118	4.2%			
1998	2,064	79	3.8%			
1999	1,575	58	3.7%			
2000	1,106	43	3.9%			
Total				161,388	69,588	91,800

(7) Selected ULAE %	4.0%
(8) Selected ULAE = ((5)+((6)*0.5))*(7)	4,620

Duration of ABC Insurance Company -

Appendix H

ABC INSURANCE COMPANY
Calculation of Duration at Different Evaluation Points

Selected Interest Rate: 5.0%

	(1)	(2)	(3)	(4)
Year N	Selected CDF	Percentage Paid	Incremental Paid from Year N to Year N+1	Duration At Year N
	(A)	=1.0/(1)	(B)	(C)
1	7.096	14.1%	18.2%	5.311
2	3.100	32.3%	12.4%	5.925
3	2.237	44.7%	8.2%	6.516
4	1.889	52.9%	5.8%	6.926
5	1.703	58.7%	4.1%	7.145
6	1.593	62.8%	3.2%	7.127
7	1.515	66.0%	2.9%	6.976
8	1.452	68.9%	2.6%	6.762
9	1.399	71.5%	2.6%	6.502
10	1.350	74.1%	2.4%	6.270
11	1.308	76.5%	2.4%	6.007
12	1.268	78.9%	2.2%	5.775
13	1.233	81.1%	2.0%	5.515
14	1.204	83.1%	2.0%	5.214
15	1.175	85.1%	1.8%	4.942
16	1.151	86.9%	1.8%	4.629
17	1.128	88.7%	1.6%	4.349
18	1.108	90.3%	1.6%	4.027
19	1.088	91.9%	1.3%	3.748
20	1.073	93.2%	1.3%	3.370
21	1.058	94.5%	1.1%	3.022
22	1.046	95.6%	1.1%	2.597
23	1.034	96.7%	1.0%	2.190
24	1.024	97.7%	1.0%	1.753
25	1.013	98.7%	0.8%	1.373
26	1.005	99.5%	0.5%	1.000
27	1.000	100.0%		

Notes (A): Based on Florida information from NCCI Annual Statistical Bulletin with and adjusted 8th/Ult. Tail; Items below line have been estimated
(B): From Column (2)
(C): Assumes that all payments are made at end of Year N

Sample Calculation of Duration (Year 1):

$$\frac{(1)*((1.05)^{-1})*18.2+(2)*((1.05)^{-2})*12.4+\ldots\ldots\ldots\ldots+(26)*((1.05)^{-26})*0.5}{((1.05)^{-1})*18.2+((1.05)^{-2})*12.4+\ldots\ldots\ldots\ldots+((1.05)^{-26})*0.5}$$

$$= 5.311$$