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How Far Does Privilege Extend in Respect of an Expert's File?

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Introduction

A pair of recent decisions from the Ontario Court of Appeal could have serious implications for experts acting in litigation matters. In *Conceicao Farms Inc. v. Zeneca* Corp.[3] , the Court was required to consider the scope of privilege that surrounds the foundation to an expert's findings, conclusions or opinions and what is subject to production under rule 31.06(3) of the Rules of Civil Procedure.

Background

The plaintiffs in the action were onion growers who had purchased a pesticide (Dyfonate) to reduce the severity of attacks by onion maggots on their onion bulbs. The plaintiffs alleged that the pesticide was ineffective and that, as a result, they suffered considerable damage to their 1995 onion crops. The defendant Zeneca Corp. was the manufacturer of Dyfonate.

The trial took place in the spring of 2004. The plaintiffs' position at trial was that the Dyfonate had to be effective for at least 60 days in order to protect against first generation onion maggots, but that the damage to their crops had occurred between 31 and 40 days after planting. The defendants argued that a combination of "earlier than usual planting of the onion seeds coupled with a later than usual emergence of the onion maggot fly lessened the ability of Dyfonate to kill the onion maggots at the crucial time period."[4]

The defendants engaged an expert to testify at trial. The expert had submitted a report approximately one year before trial opining that Dyfonate's maggot control was effective for 60 days. However, on the eve of his testimony at trial he provided a second report which changed the period to 45 days.

During cross-examination, questions arose as to whether the expert had been engaged by the defendants' prior counsel, as to the nature of any conversations that may have taken place and as to any prior reports that may have been prepared. The expert testified that he could not recall whether he had been retained by the defendants' prior counsel, what her name was, the details of any conversations he may have had with such counsel, whether he had provided prior counsel with a report, nor what he knew about the case in 1999.

Plaintiffs' counsel then requested production of the expert witness' notes and records, citing entitlement to the underlying data of the expert's report pursuant to Rule 31.06(3) of the Rules of Civil Procedure. In addition, they asked whether there had been a previous report and, if so, for a copy of it. Counsel for the defendants advised that he had inherited the file in December of 2000 from the prior counsel, that there was no expert report in the file, nor were there any notes from prior counsel to indicate that she had spoken to the expert.

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3 *Conceicao Farms Inc. v. Zeneca Corp.*, 2006 CanLII 25345 (ON C.A.), reversed by *Conceicao Farms Inc. v. Zeneca Corp.*, 2006 CanLII 31976 (ON C.A.)., lv to appeal denied 2007 Can LII 6832 (S.C.C.).
4 *Conceicao Farms Inc. v. Zeneca Corp.*, 2006 CanLII 25345 (ON C.A.) at para. 6.

Following trial, the plaintiffs' claims were dismissed by judgment dated June 11, 2004. Subsequently, when preparing their submissions on costs, counsel for the plaintiffs discovered what, in their view, was an inconsistency between the statements made by counsel for the defendants and the time docket entries produced by defendants' counsel to support their submissions on costs. The dockets revealed that the defendants' prior counsel had, in fact, retained the expert back in 1999 and had had a lengthy telephone conversation with him. This conversation was transcribed and edited into a memorandum that was some 24 pages in length.

Naturally, the plaintiffs asked that the memorandum be produced in order to see if the expert had formed an opinion at that early stage and whether it was consistent or inconsistent with the revised opinion he gave at trial. Counsel for the defendants refused to produce the memorandum because it was privileged as solicitors' work product and because it had not been requested at trial.

A motion to re-open the trial, to produce the expert's entire file and to strike out the expert's evidence was dismissed by the trial judge on the grounds that the information would not have changed his conclusion. The trial judgment and post-trial motion were both then appealed to the Court of Appeal for Ontario.

Rule 31.06(3) of the Rules of Civil Procedure

Rule 31.06(3) deals with the scope of examination regarding expert opinions. It provides:

Expert Opinions

> (3) A party may on an examination for discovery obtain disclosure of the findings, opinions and conclusions of an expert engaged by or on behalf of the party being examined that relate to a matter in issue in the action and of the expert's name and address, but the party being examined need not disclose the information or the name and address of the expert where,
>
> (a) the findings, opinions and conclusions of the expert relating to any matter in issue in the action were made or formed in preparation for contemplated or pending litigation and for no other purpose; and
>
> (b) the party being examined undertakes not to call the expert as a witness at the trial.[5]

Thus, if an expert will be called as a witness at trial (as was the case in the above matter), the "findings, opinions and conclusions" provided by the expert to counsel are discoverable by opposing counsel

The Court of Appeal for Ontario

As a procedural matter, the appellants brought a preliminary motion requesting production of the expert's memorandum so that they could determine whether it would be necessary to bring a separate motion to admit fresh evidence in conjunction with their appeal of the trial judgment. The motion was heard by a single judge of the Court of Appeal, Madame Justice Eileen Gillese.

Gillese J.A. noted that the legal issue raised in the motion illustrated the tension that exists between rule 31.06(3) and the 'zone of privacy' that is protected by litigation privilege. After providing a detailed review of the law on rule 31.06(3), Gillese J.A. held that under rule 31.06(3) the appellants were entitled to the "foundational information" underlying the expert's report, including the memorandum prepared by counsel following a lengthy preliminary discussion with the expert. She ordered the respondents to produce the memorandum. Gillese J.A referred, with apparent approval, to the case of *Browne (Litigation Guardian of) v. Lavery* (2002), 58 O.R. (3d) 49 in which Ferguson J. had held that the report of an expert not being called to testify at trial but referred to by another expert being called was producible. Gillese J.A commented on the role of experts as neutral advisers whose role was to assist the court, not to advance a particular party's case.

The respondents moved pursuant to rule 61.16(6)[6] to set aside the order of Gillese J.A. On appeal, a three judge panel of the Court of Appeal set aside the interlocutory order of Gillese J.A on procedural grounds[7]. The Court went on, however, to comment that rule 31.06(3) does permit discovery of the foundational information of an expert's report:

> [14] There is an area of debate concerning the scope of information that may be obtained pursuant to this rule. It clearly encompasses not only the expert's opinion but the facts on which the opinion is based, the instructions upon which the expert proceeded, and the expert's name and address. How far beyond this the right to obtain foundational information (as our colleague called it) extends, need not be determined here. Suffice it to say that we are of the view that it does not yet extend as far as is tentatively suggested in *Browne (Litigation Guardian of) v. Lavery*, (2002), 58 O.R. (3d) 49….
>
> [15] In ordering that memo to be produced, Gillese J.A. found that the March 14, 2000 memorandum contains foundational information for [the expert's] final opinion and that the appellants have the right to obtain that information under rule 31.06(3).
>
> [16] Accepting her finding about the contents of the memorandum, we agree that the rule entitles the

5 R.R.O. 1990, Reg. 194, R. 31.06 (3).

6 R.R.O. 1990, Reg. 194, R. 61.16 (6).

7 The Court of Appeal focussed on the fact that R. 31.06(3) applies to the discovery stage of litigation and the fact that there was no mechanism to force disclosure of the information after trial. Since plaintiffs' counsel had not requested production of the memorandum in advance of trial, it was too late to ask for it now.

> appellant to obtain on discovery the foundational information contained in the memorandum.[8]

In addition, the Court of Appeal made a distinction between discovery of the foundational information of an expert's report and production of the document, itself, which contains the information. The latter, if it is properly protected by litigation privilege, should not be ordered produced:

> Taking as a given that a document protected by litigation privilege and part of counsel's work product contains the foundation for an expert opinion, there is no need to remove the privilege for the document itself to do justice. The foundational information in the document is available under rule 31.06(3), if it is sought on discovery. Removing the privilege for the document itself is not necessary to obtain that information, but does run the risk of requiring disclosure of properly privileged information that is often intertwined with discoverable information in the lawyer's work product. [9]

What are the Ramifications?

Given these decisions expanding the scope of discovery to include information conveyed by an expert to counsel (or vice-versa) and reducing the scope of litigation privilege[10], what are some of the implications for counsel, their clients and the experts involved?

Scope of Engagement: The Consultant versus the Trial Expert

It is now more important than ever to define the scope of the expert's retainer at the outset. Counsel will have to consider whether the expert will be engaged to testify or whether he/she is being retained to act as a consultant, providing advice and assisting counsel in assessing the merits of the case. The difference is that there is a duty, if asked on discovery, to disclose the conclusions, opinions and findings of the expert, including "foundational information", unless counsel gives an undertaking not to call the expert at trial. That undertaking can more easily be given if there is no intention of calling that particular expert at trial.

It is also important to consider whether the expert is being retained in contemplation of litigation or if litigation has commenced, as opposed to some other form of retainer that does not involve a reasonable prospect of litigation. In *Prosperine v. Ottawa-Carleton (Regional Municipality)*[11], experts were engaged to investigate a potential fraud committed by a contractor against the municipality. Although they were engaged by in-house counsel, the firm's report and contract made reference to quantifying the loss and identifying areas for improvement. The initial retainer did not specifically refer to assisting counsel for the purpose of giving legal advice in contemplation of litigation. The court rejected claims for solicitor-client privilege and litigation privilege made by the corporation and suggested that while the expert's work may have facilitated obtaining legal advice at some later time, that was not specifically noted or contemplated at the time of their engagement.

Counsel may now be in a position, on certain files, where they want to retain the services of two sets of experts:. one to provide an expert opinion for use in court and the other to provide advice on quantum, merits of a case, negotiation, assessment of opposing experts' reports, and assistance with examinations and cross-examinations among other things. This may have all been done by one expert in the past. This will certainly serve to drive up the costs of litigation, in many cases, as it would require two experts, working independently to a large extent, to assess the same data and to provide information of use to counsel and the court. However, the risk of having key strategic pieces of information disclosed if just one expert is used may be too high.

Use of Draft Reports

Disclosure requirements will make experts wary of preparing and distributing draft reports for fear of having to spend hours in cross-examination justifying every change in every draft to get to the final version. Many experts and firms now have policies with regard to limiting the distribution of and the destruction of drafts. When feasible, these documents are to be reviewed by clients and counsel at the expert's work site and are not to be removed. Any comments are considered straight away and then the draft is destroyed for fear of having multiple drafts in circulation. Given the comments made by Justice Gillese, these policies may do nothing to alleviate the court's concerns regarding influence on experts' reports; however, it may be a necessary requirement to avoid a cross-examination as described above. Thus, the conundrum of upsetting the court by telling the judge all drafts were destroyed (and the potential adverse inference that could, therefore, arise) versus a torturous cross-examination regarding wording changes, changes in calculations, influence of counsel, etc.

Furthermore, the advent of the electronic age makes destruction of draft reports next to impossible in many cases. Reports are not only stored in paper form but also on hard drives, servers, in emails etc. Employing a policy of destructing drafts may in fact be very difficult to manage.

It would be naïve to think that counsel, in some instances, do not try to influence experts to remove damaging aspects of reports or to re-word elements. However, in our experience, comments are typically for purposes of suggesting

8 *Conceicao Farms Inc. v. Zeneca Corp.*, 2006 CanLII 31976 (ON C.A.) at para. 14.

9 *Conceicao Farms Inc. v. Zeneca Corp.*, 2006 CanLII 31976 (ON C.A.) at para. 21.

10 See also *Ritorto v. Ahmad,* 2007 CarswellOnt 299 (Ont. S.C.J.).

11 *Prosperine v. Ottawa-Carleton (Regional Municipality)* [2002] O. J. No 3316 (S.C.J.), and [2003] O.J. No. 1414 (Div. Ct.).

wording to enhance the court's understanding of the opinion in a more concise, clear format. In fact, many counsel do not even want to see a draft for fear that they could be called as a witness and questioned about their influence on a draft. They merely engage in a brief discussion of the main points of the opinion and then ask to be served with the final report. This does nothing to assist the court by providing a document that is clear, concise and easily understood. There is little doubt that every expert is guilty, on occasion, of talking above their audience on matters of their expertise. The gift is to be able to communicate the opinion clearly and concisely. Sometimes, the comments of legal counsel are beneficial in this area as the only other people reviewing the expert's report are typically senior experts in the same firm who may fall in a similar pitfall of fully understanding the expert's point of view but not realizing that it is not easily understood by the non-expert. Therefore, counsel will want to be sure that the expert is experienced and reliable to alleviate the fear of a poorly written report that is difficult for the court to comprehend.

More vs. Less

Ultimately, experts will be faced with the decision whether to fully document their files in order to rationalize every decision and to justify every shred of evidence used or discarded or just to maintain a "thin file" with information that fully supports their ultimate opinion and report.

Waiver of Privilege

Experts who are aware they will likely be called to testify will also have to exercise care in their notes and communications on file as this could very well be discoverable. Therefore, be aware, for example, of the possibility of being cross-examined on some brief note of a telephone conversation that occurred three years ago, which was not well documented, or notes that you have made regarding another expert's report.

Who's Expert Are You Anyway?

Experts who are being called to testify must always keep in mind that their role is to assist the court. They are expected to be neutral and their opinions should be written so that they could be adopted by either side in the litigation. An expert who is seen to be biased and trying to serve only the interests of his client could, in fact, be doing a disservice to his client by not giving the client and counsel a reality check on the merits of their case from the expert's perspective. Many people ask how two opposing experts in the same field can have such conflicting opinions in the same case. But one must always remember that experts are working from the "fact situations" provided by their own clients and counsel and that they are working from different sets of assumptions in many cases. Having more fulsome disclosure may, in many cases, bridge the gap between opposing experts and thus provide greater assistance to the court.

Conclusions

Based on the above, there are a number of important considerations when assuming the role of an expert. Some of these include:

- It is important for the expert and counsel to understand and to clearly define the expert's role in each case. The engagement/instruction letter should clearly define this with the notion of privilege always at the forefront of the mind of the expert and counsel. The purpose of the third party expert and the importance of the relationship between client and counsel should be considered in the context of privilege.
- The expert needs to consider his/her role in the context of being a consultant to one side in an action or as an expert for purposes of assisting the court, as this will have major repercussions in communicating with clients and counsel and in the way that the expert approaches a file.
- Communications and draft reports should always be considered in terms of privilege and the possibility of having to be produced. Experts should develop a policy and approach with respect to dealing with draft reports and documenting discussions with counsel.
- Now, more than ever, prudence and caution are necessary at the outset and over the course of the entire engagement.

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Quantifying Damages in Patent Infringement Disputes – Plaintiff's Damages or Defendant's Profits?

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Few will argue that patents are vital strategic assets for many companies. Patents grant their owners exclusive rights of use, which can lead to a unique competitive advantage in the marketplace, and, in turn, lead to a company generating premium profits. Along the same lines, when patents are infringed, the negative economic impact to an owner can be significant.

The quantification of damages in alleged patent infringement cases presents unique challenges to loss quantification experts and legal counsel. In addition to the challenges of proving liability on often highly technical issues, plaintiffs and their counsel have to decide, if given the option, whether to claim the loss that the plaintiff has incurred as a result of the infringement ("plaintiff's damages") or claim for a disgorgement of the defendant's profits ("defendant's profits"). While it is tempting to simply pursue the option that results in the highest quantum of loss, the choice is not that straightforward.

Plaintiff's Damages

A plaintiff's damages are usually represented by its lost profits and/or a reasonable royalty. In order to claim lost profits, a plaintiff has to prove that it would have been able to make the infringing sales made by the defendant.

Lost profits

Concept

The plaintiff's lost profits are determined using the same principles as in commercial tort litigation, which provide that a plaintiff is entitled to the profits that it would have reasonably earned but for the defendant's wrongful act (i.e., infringement). The premise is to put the plaintiff back in the position it would have been assuming there had been no infringement. The onus is on the plaintiff to prove its lost profits.

Loss quantification items for consideration

The basic methodology for quantifying a plaintiff's lost profits is to determine the lost sales revenue and deduct the variable/incremental expenses that would have been incurred in respect of those sales. A loss quantification expert has to first determine the sales volumes that the plaintiff would have generated "but for" the infringement, and deduct from this any actual sales volume earned, with the difference being the lost sales volume. Due to the complexities involved, it is not unusual for a marketing expert to assist in determining lost sales volumes.

The next issue is determining the selling price per unit. Would the plaintiff have sold the foregone sales volume at the price charged by the defendant? Or would the plaintiff's sales price for foregone sales and any actual sales volume have been higher if the defendant had not been unfairly competing?

Next is the determination of expenses related to the lost sales revenue. Typically, a contribution margin approach is employed which identifies the variable/incremental costs associated with the lost sales revenue. Not all costs vary with the level of production and sales – for instance, an extra salesperson may be required to deal with the additional sales volume, but there would be no change in the number of executives or head office managers.

Incremental fixed costs and "period" costs also need to be considered. Would incremental fixed costs have to be incurred to produce and sell the foregone sales volume? For instance, would capacity have to be added by acquiring machinery and equipment or renting larger facilities?

The loss quantification expert should consider whether the plaintiff has suffered any loss on complementary accessory products and services that are themselves not infringed but which would have accompanied sales of the infringed product (e.g., warranty and service contracts related to an infringed product).

Strategic issues

An important consideration in the decision to elect for damages is the plaintiff's ability to prove the extent of sales it lost as a result of the infringement..

In proving its case, the plaintiff potentially makes its competitive information (e.g. product pricing, supplier costing arrangements, production information and customer relationships) available to its competitors and perhaps the public. Even with protective orders and confidentiality requirements, the plaintiff may still have to supply key business documentation supporting its calculations to the defendant. Disclosure of this information is thus a consideration in electing this remedy, which must be weighed against possibly higher quantum of damages.

Reasonable royalty

Concept

Where the plaintiff cannot demonstrate that they would have made the infringing sales made by defendant (i.e., due to lack of capacity or other business constraints), a reasonable royalty approach is applied to quantify damages for those sales.

Loss quantification items for consideration

Damages based on a reasonable royalty require the determination of two components: a) infringing sales to which the royalty is to be applied, and b) a reasonable royalty rate.

The determination of infringing sales, applicable to the reasonable royalty, is typically based on the portion of the defendant's sales that would not have been captured by the plaintiff. Determining a reasonable royalty rate also poses a challenge, and may involve the use of experts in licensing IP technology. The general premise is to arrive at a royalty rate that would represent the result of a hypothetical negotiation between the plaintiff and the defendant. There are a number of factors to take into account in undertaking such an exercise, including whether the patent has been previously licensed.

Accounting of Defendant's Profits

Concept

The objective behind an accounting of profits is to have the defendant "disgorge" the profits made from its infringing activities, so as to prevent "unjust enrichment", rather than quantifying the plaintiff's loss.

Loss quantification items for consideration

The initial step in an accounting of profits is to identify the infringing products and other related sales made by the defendant. The defendant is required to disclose sales of the product(s) in dispute. The loss quantification expert's concern is to ensure completeness of the reported infringing sales.

Another consideration is whether sales of non-infringing or convoyed products sold by the defendant as a result of the infringing sales should be included in the disgorgement. The key question is: "Did the sale of the convoyed product only occur because of the sale of the infringing product"?

Determining costs, as with plaintiff's damages, requires consideration of variable expenses and any increase in fixed expenses attributable to the infringing products.

In determining the defendant's profits, loss quantification experts may have to be prepared to deal with apportionment issues. For example, if only one component within the product infringes, rather than the entire product, then the quantification of the defendant's profits may need to take this into account. Apportionment may also apply where a product contains two or more patents. The application of apportionment may be complex in determining the defendant's profits from infringement.

Strategic issues

Strategically, a plaintiff removes a major hurdle inherent in its lost profits, in that it does not have to establish that it could have made the infringer's sales if it elects for an accounting of the defendant's profits. In addition, it is now the defendant's books and records that will be subject to scrutiny rather than the plaintiff's.

Conclusion

The quantification of damages in patent disputes is not a minor undertaking. Choosing between plaintiff's damages or defendant's profits is affected by more than just the absolute quantum of each. The issues raised above are by no means exhaustive, but are designed to convey the point that all cases are *fact specific*.

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Case Study—Discount Rate For An Intellectual Property Lost Profits Analysis

Chip Brown

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Estimating an appropriate discount rate is a necessary procedure in an intellectual property lost profits/economic damages analysis. In an intellectual property infringement matter, the lost profits are specific to the subject intellectual property. Accordingly, the discount rate should include the specific risk factors related to the intellectual property. The discount rate may also include the specific risks already incurred by the subject intellectual property owner/operator. This discussion explains the common procedures for estimating intellectual property discount rates, through the presentation of a case study. This case study presents a simplified illustrative example of different economic damages scenarios related to an intellectual property. Finally, this discussion considers the application of different discount rates to the damages analysis of (1) historical lost profits and (2) future lost profits.

Estimating an appropriate discount rate is a necessary procedure in an intellectual property lost profits/economic damages analysis. In an intellectual property infringement matter, the lost profits are specific to the subject intellectual property. Accordingly, the discount rate should include the specific risk factors related to the intellectual property. The discount rate may also include the specific risks already incurred by the subject intellectual property owner/operator. This discussion explains the common procedures for estimating intellectual property discount rates, through the presentation of a case study. This case study presents a simplified illustrative example of different economic damages scenarios related to an intellectual property. Finally, this discussion considers the application of different discount rates to the damages analysis of (1) historical lost profits and (2) future lost profits.

Introduction

One measure of the actual infringement damages to an intellectual property owner is the lost profits the intellectual property owner (claimant) would have earned if not for the infringement by another party (defendant).[1]

Lost profits can include both:

1. already incurred (historical) lost profits and
2. expected future income losses.

Both (1) the already incurred lost profits and (2) the future income losses are typically converted to their present value as of the first date of infringement, using a present value discount rate.

The discount rate is an important element in arriving at a damages conclusion. The selection of the discount rate depends on the risk associated with owning/operating the subject intellectual property.[2]

The discount rate should also capture the uncertainty inherent in the generation of the projected cash flow. All else being equal, the higher the discount rate, the lower the intellectual property value and vice versa.

A common method for estimating the discount rate is to calculate the intellectual property owner/operator weighted average cost of capital (WACC). A WACC incorporates:

1. the cost of equity capital (often calculated using the capital asset pricing model (or CAPM) or the build-up model) and
2. the cost of debt capital.

In many cases related to the intellectual property of an early stage, single product company, the WACC is the same as the cost of equity. This is because of the lack of debt in the intellectual property owner capital structure.

The discount rate calculation in an intellectual property economic damages analysis may differ from the calculation of a discount rate in a business valuation or intellectual property valuation analysis.

In an intellectual property lost profits analysis, there may be one or more discount rates selected, and the selected discount rate may reflect any of the following:[3]

- the return on a risk-free asset,
- the claimant weighted average cost of capital,
- the claimant borrowing rate,
- the claimant cost of equity,
- the return on a an investment similar to the affected intellectual property or business, and/or
- adjustments for case-specific risk factors.

This discussion illustrates an intellectual property economic damages analysis case study. The objectives of this case study analysis are to illustrate:

1. how more than one discount rate may be necessary,
2. the possible methods for estimating various discount rates, and

3. the discount rate estimation and application in an intellectual property lost profits analysis.

Case Study Fact Background

A company called Patented Technologies Inc. was started in 1995 and awarded a patent for a device that could be used in (1) cell phones and (2) handheld computers ("handhelds").

The company immediately rolled out a cell phone product that used the patented device. The cell phone product enjoyed immediate market success over the first five years.

The handheld device business took longer to get started. But, in 2000, the company neared the launch of its first handheld product with the patented technology.

A company called Infringers Inc. also was in the cell phone business and in the handheld computer device business. In 2000, Infringers Inc. added a new feature (similar to the Patented Technologies Inc. patent) to its cell phone. This new feature allowed Infringers to gain market share from Patented Technologies Inc.

Infringers Inc. also added the same feature to its handheld device that caused a substantial increase in its handheld device sales. The success of the Infringers, Inc. handheld device caused the Patented Technologies Inc. launch of its handheld device in 2000 to be unsuccessful. Shortly thereafter, Patented Technologies Inc. ceased its handheld computer operations.

In 2005, Patented Technologies Inc. filed a suit claiming that Infringers had infringed on the Patented Technologies Inc. patent for its cell phone and handheld devices.

Infringers Inc. changed the design of its cell phone so as to no longer infringe on the Patented Technologies Inc. patent. Patented Technologies Inc. noticed an immediate increase in the market share of its cell phone business after Infringers Inc. ceased its infringement activities. Patented Technologies Inc. management estimated that it would regain its entire lost cell phone market share by 2010.

Infringers Inc. also changed the design of its handheld device to no longer infringe on Patented Technologies Inc. patent. Patented Technologies Inc. determined it was not feasible to successfully enter the handheld market due to the already established market participants.

Estimation of a Present Value Discount Rate[4]

If a market-extracted discount rate (i.e., a rate extracted from intellectual property arm's-length sale/license transactions) is not available, then the discount rate applicable to a business enterprise is sometimes used as a proxy for the appropriate rate of return. The intellectual property owner/operator and the business enterprise owner/operator are sometimes assumed to be similar—in that much of their value (in the case of the intellectual property, all of its value) is intangible in nature.

In order to compensate an investor for the level of risk associated with owning an intellectual property, analysts often use either a business enterprise cost of equity capital or a weighted average cost of capital as a proxy for the appropriate intellectual property discount rate.[5]

There are several methods that may be used for estimating the lost profits discount rate:

- the capital asset pricing model (CAPM),
- the build-up model,
- the arbitrage pricing theory (APT) model, and
- the weighted average cost of capital.

In an intellectual property economic damages analysis, each of the foregoing methods may be adjusted, if necessary, for the degree of risk associated with the subject intellectual property. The subject intellectual property may have more or less risk than the claimant's business operations taken as a whole.

To continue with the case study described previously, we will walk through the discount rate estimation process. For purposes of this illustrative example, we will use the CAPM[6] as a starting point in estimating the appropriate discount rate for the subject lost profits.

The basic CAPM equation is expressed as follows:

$$E(Ri) = Rf + B(RPm)$$

where:

E(Ri)	=	Expected rate of return (cost of equity capital for an equity security) for a given asset, property, or business interest investment i
Rf.	=	Rate of return on a risk-free investment
B	=	Beta
RPm	=	Risk premium for the market in which the subject investment trades (e.g., an equity risk premium is based on the capital market for publicly traded equity securities)

Intellectual Property Considerations in the Discount Rate Estimation[7]

For intellectual property, the basic CAPM may be expanded to include consideration of a risk premium associated with the intellectual property investment. Such an intellectual property–related risk premium may be based on:

- the type of intellectual property subject to analysis (i.e., copyright, patent, trademark, trade secret, etc.);
- industry factors related to the current or expected use of the intellectual property;
- the remaining useful life of the subject intellectual property;
- competition related to the availability/use of alternative intellectual properties;
- competition related to the development/commercialization of new intellectual properties;

- competition for the business enterprise owner/operator of the intellectual property;
- innovation/obsolescence of the subject intellectual property (and vis-à-vis potential or actual competitive intellectual properties); and
- other relevant factors.[8]

By considering these and other factors, the basic CAPM equation may be expanded as follows:[9]

$$E(Ri) = Rf + B(RPm) + RPip$$

where:

E(Ri)	=	Expected rate of return for a given investment i
Rf	=	Rate of return on a risk-free investment
B	=	Beta
RPm	=	General equity risk premium, extracted from the general capital markets
RPip	=	Additional risk premium associated with intellectual property–specific risk factors

An Ibbotson Associates–derived equity risk premium may be sufficient for use in the CAPM when estimating the required rate of return on an equity security. However, it may not capture all of the incremental risk (and resulting required return) that is inherent in an intellectual property. As a result, the analyst may incorporate an additional risk premium that is specific to the subject intellectual property.

Based on a comparison of the characteristics of (1) the subject intellectual property and (2) a typical equity security, it is often the case that an intellectual property will warrant a required rate of return that is higher than the rate of return derived for a publicly traded equity security.[10] While this concept seems intuitive, the quantification of the exact intellectual property–specific risk premium is not so straightforward.

Unlike an equity security, an intellectual property has a. limited remaining useful life. Intellectual properties are generally considered to be more risky than equity securities. In contrast, the (1) commercialization and license potential and (2) legal protection/judicial standing associated with intellectual properties generally makes them less risky than other intangible assets.[11]

As a result, the required rate of return for an intellectual property normally ranges from:

1. a low that is equivalent to the required rate of return on the equity securities of the company that owns the intellectual property to
2. a high that is equivalent to the required rate of return of the company's other intangible assets.[12]

However, for intellectual property related to early stage technology, the discount rate can be higher. Some analysts use venture capital start-up rates of return as a proxy for the discount rate of intellectual property related to early stage technology.

The required return for single product early stage technology with intellectual property is not unlike the rates commanded by venture capital investors for bridge/IPO investments.[13]

The risk premium should decrease as a project successfully proceeds. This is because there is less uncertainty about the future cash flow.[14] It is important to note that there is no specific model or formula for quantifying the exact intellectual property–specific risk premium.

There are also no observable markets for the intellectual property–specific risk premiums. Ultimately, the adjustment to the required rate of return is based on the analyst's experience and judgment.[15]

Fact-specific Considerations in the Discount Rate[16]

Now that an intellectual property discount rate has been estimated, an adjustment for the specific facts of the economic damages case may be necessary. An intellectual property economic damages–specific risk adjustment should be based on:

- whether the damaged business intends to (or is able to) continue operating;
- the business risks already factored into the historical lost profits estimates and the future lost profits estimates; and
- the business risks that are nonexistent (or already encountered) related to the historical lost profits estimates and the future lost profits estimates.

In the subject case study, there are differences between the handheld damages and the cell phone damages that affect the discount rate estimation. Those differences are summarized in Exhibit 1.

Exhibit 1
Patented Technologies Inc. Illustrative Example

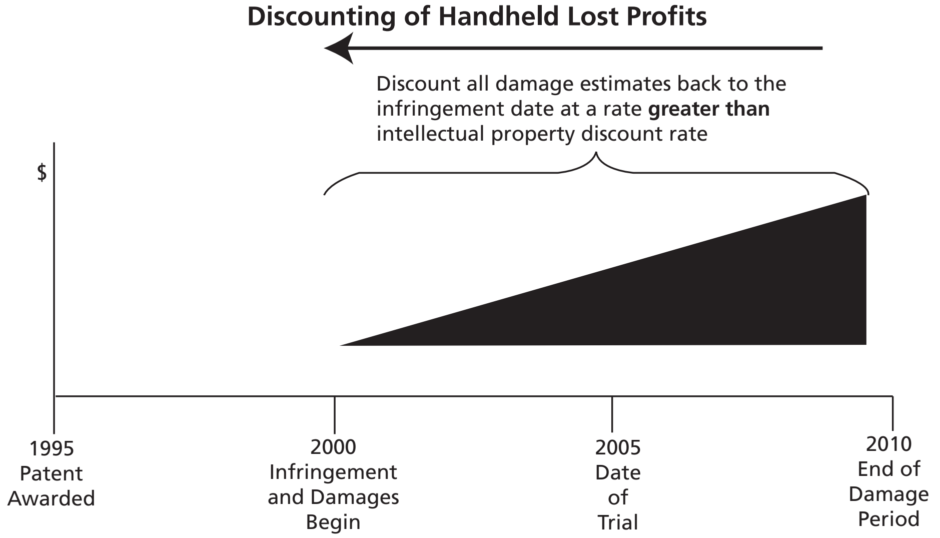
Difference Between Handheld Damages and Cell Phone Damages

	Cell Phone	Handheld
Was it an established product (e.g., significant sales or profits) before infringement occurred?	Yes	No
Are sales and margins expected to increase (at some future point) to a normalized level after infringement stops?	Yes	No
Will the business (or business line, in this case) continue as a going concern after infringement stops?	Yes	No

Based on the differences, the estimated damages are discounted differently for the handheld estimated damages and for the cell phone damages.

Table 1 illustrates the process of discounting the handheld lost profits.

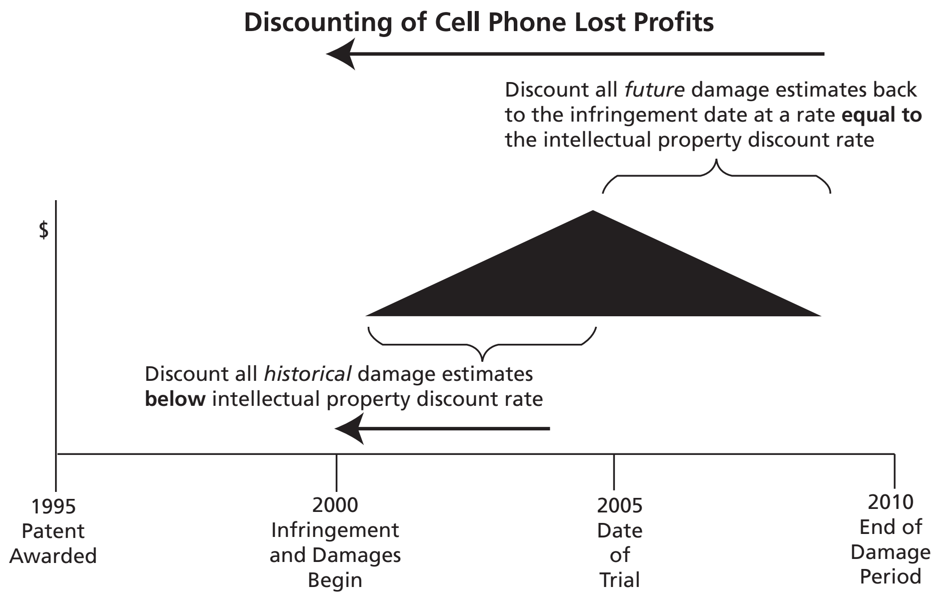
Table 1
Patented Technologies Inc. Illustrative Example



The discount rate is greater (assuming a normalized projection based on industry averages and margins is used) than the intellectual property discount that would be calculated using an intellectual property–adjusted CAPM method (described previously). The reasons are (1) that the handheld business was not an established business and (2) that the intellectual property was not an established feature of a handheld product. Accordingly, there is more risk.

Table 2 illustrates the process of discounting the cell phone lost profits.

Table 2
Patented Technologies Inc. Illustrative Example



The historical (pre–trial date) estimated damages are discounted using a lower discount rate. This is because several business risks have already been encountered. Accordingly, a lower discount rate is applied. This discount rate could be significantly lower than the intellectual property discount rate if most of the business risks have already been encountered or are nonexistent.

The future (post-trial date) cash flow projections face similar risks to other comparable intellectual property assets or businesses. Accordingly, a discount rate equal to or near the intellectual property discount rate would be justified, assuming a normalized projection based on industry growth rates and profit margins is used.

The other noteworthy point is that, in both cases, the historical and future estimated damages are discounted to when the infringement started and not the date of the trial. The present value of the lost profits damages as of the infringement date may be adjusted for prejudgment interest.

Summary and Conclusion

The present value discount rate is an important element in an intellectual property lost profits/economic damages analysis. This discussion explored:

1. the development of an intellectual property discount rate
2. and the factors to consider in an intellectual property lost profits analysis.

Notes:

1. *Seymour v. McCormick*, 57 U.S. 480 (1853); *Rite-Hite Corp. v. Kelley Co., Inc.*, 56 F.3d 1538, 1545 (Fed. Cir. 1995); *Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co., Ltd.*, 72 F.3d 857, 867 (Fed. Cir. 1995), *rem'd,* 117 S. Ct. 1240 (1997), *aff'd in part, vac'd in part and rem'd*, 172 F.3d 1361 (Fed. Cir. 1999), *reh'g en banc granted, judgment vac'd,* 187 F.3d 1381 (Fed. Cir. 1999) ("The general measure of the actual damages of a manufacturing patentee is the lost profits that the patentee would have earned but for the infringement.").
2. *Fundamentals of Intellectual Property Valuation* (Chicago: The American Bar Association, 2005), p. 50.
3. Christian Tregillis, "Differences Between Lost Profits and Diminution in Business Value as a Measure of Damages," (AICPA Website www.aicpa.org/bvfls).
4. Timothy J. Meinhart, "Intellectual Property Discount Rates and Capitalization Rates," (Chapter 15) in *The Handbook of Business Valuation and Intellectual Property Analysis*, Robert F. Reilly and Robert P. Schweihs, eds. (New York: McGraw-Hill 2004).
5. Ibid.
6. The subject company is assumed to have no debt. Accordingly, the cost of equity (calculated in this example using the CAPM) is the same as the WACC.
7. Meinhart, "Intellectual Property Discount Rates and Capitalization Rates."
8. Ibid.
9. Ibid.
10. Ibid.
11. Ibid.
12. Ibid.
13. "Valuation of Assets Acquired" (Chapter 5) in *Assets Acquired in a Business Combination to Be Used in Research and Development Activities: A Focus on Software, Electronic Devices, and Pharmaceutical Industries*, AICPA Practice Aid Series (Harborside, NJ: American Institute of Certified Public Accountants).
14. Ibid.
15. Meinhart, "Intellectual Property Discount Rates and Capitalization Rates."
16. The information in this section is based on the following source: "Risk, Discount Rates, and Prejudgment Interest," (Chapter 14B) in *Intellectual Property Damages, Guidelines and Analysis*, 2004 Supplement, Mark A. Glick, Lara A. Reymann, Richard Hoffman, eds. (Chicago: John Wiley & Sons, 2004).

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A Methodology for Allocating Enterprise and Personal Goodwill

By Michael B. Van Amburgh, ASA

This article originally appeared in the Summer 2007, Vol. 26 No. 2 edition of the Business Valuation Review of the American Society of Appraisers (ASA). It is printed here with permission of ASA.

General Methodology

The purpose of this research is to provide a logical methodology for allocating the total goodwill of a professional practice between the element of personal goodwill attributable to the practitioner and the element of enterprise goodwill attributable to the professional practice. The methodology presented in this research includes four basic steps: (1) the identification of individual factors within a professional practice that are attributes of goodwill; (2) the objective determination of the comparative importance of each attribute in relation to other personal and enterprise goodwill attributes; (3) the evaluation and scoring of the subject enterprise in relation to each personal and enterprise goodwill attribute; and (4) a weighted average conclusion for the percentage of allocable goodwill attributable to elements of personal goodwill and the percentage allocable to enterprise goodwill. For the sake of identification, the model is referred to as the Goodwill Assessment System ("GAS").

Step 1 of the research involved the selection of 26 unique factors within a professional practice that are attributes of goodwill. Thirteen of the factors relate to personal goodwill and thirteen relate to enterprise goodwill. Each attribute contributes to or detracts from the ability of the practice to attract new business, retain existing clients, and produce long-term sustainable income. Collectively, these intangible elements contribute to the value of the enterprise; producing incremental income in excess of the rates of return generated by the tangible assets and identified intangible assets of the business. The 26 unique factors were selected based upon my own subjective estimate of the important considerations employed by users of professional practices in their decisions to use a particular practice and to continue use of the practice for subsequent visits. Discussions with physicians, attorneys, accountants, dentists, and other principals of professional practices also provided insights regarding the 26 factors included as the primary basis for this study.

Step 2 of the research involved the creation, distribution, and data collection associated with an independent survey evaluating the comparative importance of each personal goodwill and enterprise goodwill factor. Documenting the strength or weakness of an attribute via a survey was deemed to be less subjective and more supportable than simply applying 1/13 (7.69%) weighting to each attribute. Respondents were provided with a survey listing 26 goodwill attributes (in random order) and respondents were asked to rank the importance of each attribute on a scale from zero to ten, with a score of zero indicating minimal impact upon the respondent's decision to continue as a client of the practice and, with a score of ten indicating maximum impact upon the respondent's decision to continue as a client of the practice. A weighted average score was determined for each of the 26 attributes and this weighted average score was then scaled to the total of all weighted average scores for either the thirteen personal goodwill attributes or the thirteen enterprise goodwill attributes. The calculations result in a percentage weight for each attribute totaling to 100% for the personal goodwill factors and totaling to 100% for the enterprise goodwill factors. The survey was performed in order to provide objective documentation for the assumptions and weightings used in the analysis. The survey sample consisted of ordinary users of the services provided by professional practices and was totally independent from VAVA Inc. or owners of professional practices or their legal and financial advisors.. As part of the survey, respondents were given the option to identify other factors in addition to the 26 attributes listed that impact their decision to use a particular professional practice. As of April 19, 2007, five additional goodwill attributes were identified through the survey responses, but no amendment to the GAS model was deemed appropriate.. The five additional goodwill attributes were: practitioner appearance/personality, the number of non-practitioner owners, the presence of electronic versus manual files, the level of referrals from patients/clients, and whether it is the general inclination of the practitioner to directly ask the client for his or her business.

Step 3 involves an objective evaluation of the subject enterprise and the practitioners therein regarding the 26 goodwill factors. It is hoped that all parties to the valuation will assist in the selection of an appropriate score for each factor. Following compilation of the attribute weightings (step 2) and. subject scores (step 3) a unique weighted average rating is produced for each of the 26 goodwill attributes.

Step 4 involves the calculation of a weighted average conclusion for the percentage of allocable goodwill attributable to elements of personal goodwill and the residual percentage allocable to enterprise goodwill. The individual weighted average attribute ratings of the personal goodwill attributes (step 3) are summed, resulting in an aggregate personal goodwill score. Similarly, the individual weighted average attribute ratings of the enterprise goodwill attributes (step 3) are summed, resulting in an aggregate enterprise goodwill score. Finally, the percentage of each aggregate goodwill score to the sum of the aggregate personal goodwill score and the aggregate enterprise goodwill score is calculated. The total concluded goodwill value of the subject entity is then allocated as a percent of the total to personal goodwill and enterprise goodwill.

Definition of Terms

A basic definition of certain terms is helpful in understanding the assumptions utilized in this analysis:

A widely-used definition for ***goodwill*** is gleaned from Justice Joseph Story's 1841 definition of goodwill ("Joseph Story, Commentaries on the Law of Partnership as a Branch of Commercial and Maritime Jurisprudence, § 99, at 139, Boston, 1841):

> "Goodwill is the advantage or benefit, which is acquired by an establishment, beyond the mere value of the capital, stock, funds, or property employed therein, in consequence of the general public patronage and encouragement, which it receives from constant or habitual customers, on account of its local position, or common celebrity, or reputation for skill or affluence, or punctuality, or from other accidental circumstances, or necessities, or even from ancient partialities, or prejudices."

Personal goodwill is often found in professional businesses. These businesses often have the ability to offer specialized, unique services due to the advanced education and special skills of the owners. In this regard, personal goodwill is often referred to as professional goodwill. The most common type of goodwill is business, or ***enterprise goodwill***. Its prevalence (and the relative obscurity of personal goodwill) is revealed by the tendency of legal writers to refer to business goodwill as simply "goodwill.". *Black's Law Dictionary* defines goodwill as "[a] business's reputation, patronage, and other intangible assets that are considered when appraising the business, especially for purchase; the ability to earn income in excess of the income that would be expected from the business viewed as a mere collection of assets". (Ibrahim, page 8).

The Survey

A copy of the GAS survey is presented as Exhibit 1. The survey includes an introduction along with 26 attributes listed in random order related to enterprise goodwill or personal goodwill. The survey has been distributed to more than 500 users of professional practices, as of April 19, 2007, including school administrators, business owners, parents working from home, insurance agents, lawyers, engineers, physicians, students, customer service representatives, clergypersons, and other individuals from a wide variety of occupations. As of April 19, 2007, a total of 147 responses had been submitted and are included in this study.

The results from the survey were utilized solely to determine the weighting applied to each of the 13 goodwill attributes within the enterprise goodwill and personal goodwill classes. For example, "Years of Experience of the Practitioner" (a personal goodwill attribute) received a weighted average response weighting of 7.27 on ten-point scale. Based on survey responses, this indicates a perceived moderate-to-high link between the Years of Experience of the Practitioner and a decision by the user of a professional practice to continue to rely upon the services of the practice. The 7.27 score for this attribute represented 8.8% of the aggregate weighted average responses for all 13 personal goodwill attributes. The sum of the weighted average percentage scores for 13 personal goodwill attributes equals 100%. Identical calculations were applied separately to weight the personal goodwill attributes and the enterprise goodwill attributes.

It should be noted that the survey also asked the respondent to rank the top three attributes impacting. the continued success of the professional practice. This additional ranking was employed to test the reasonableness of the individual attribute weightings.

Elements of Goodwill

A total of 26 goodwill attributes were identified in this research. Although the text description of most of the goodwill attributes is evident, the following summary description may be helpful.

Personal Goodwill Attributes

1. Years of Experience – Practitioner
   How long has the subject practitioner been certified or trained in his or her area of expertise?. How long has the practitioner been active as a professional in the local market?. Is the practitioner knowledgeable of the nuances and specific characteristics of the local market for professional services. Attribute Weighting: 7.27 (8.8%).
2. Licenses and Specialties – Practitioner
   Does the practitioner have special areas of expertise or licenses to practice in certain sub-specialties?. Is the practitioner Board-certified? Attribute Weighting: 7.23 (8.8%).
3. Peer Reputation
   Is the practitioner respected in his or her local peer community?. Has the practitioner ever been sanctioned, reprimanded, or suspended by local, state, or Federal regulatory authorities? Attribute Weighting: 7.32 (8.9%).
4. Age of Practitioner
   What is the age and expected employment duration of the practitioner? Attribute Weighting: 4.82 (5.8%).
5. Unique Procedures and/or Equipment
   Does the practitioner successfully use approved procedures or equipment that are unique or seldom employed by competing practitioners?. Attribute Weighting: 7.18 (8.7%).
6. Personal Practitioner Advertising
   Does the practitioner advertise under his or her own name in local media?. Is the advertising effective in reaching the local user market? Attribute Weighting: 3.73 (4.5%).
7. Level of Incoming Referrals from Other Practitioners
   Does the practitioner receive referrals from peers, clients, and third party sources? Are referrals specifically directed to the individual practitioner or are they generically sent to the practice?. Attribute Weighting: 6.77 (8.2%).
8. Buy-Sell or Shareholder Agreement in Place
   Is the practitioner a party to buy-sell or shareholder agreements with the practice or other owners?. Does the buy-sell or shareholder agreement stipulate a buy-in or exit price for the practitioner's ownership interest?. Attribute Weighting: 3.86 (4.7%).
9. Practitioner Individual Awards
   Has the practitioner been the recipient of individual awards or honors in the local community?. Has the practitioner published articles or research that have been favorably reviewed in the local press? Attribute Weighting: 5.59 (6.8%).
10. Civic Involvement of the Practitioner
    Is the practitioner active in the local civic community, including schools, charitable causes, service groups, etc.? Attribute Weighting: 4.68 (5.7%).
11. Availability for Patient/Client Visits
    Is the practitioner available for patient / client visits or are there conflicting demands for his or her time, including consulting, research, teaching, and personal non-professional responsibilities? Attribute Weighting: 7.86 (9.5%).
12. Patient/Client Interpersonal Skills and Personality
    Does the practitioner show an interest in the client's well being?. Is the practitioner respectful of the client's time?. Is the practitioner responsive to client questions? Attribute Weighting: 8.82 (10.7%).
13. Health of the Practitioner
    What is the general health, energy level, and alertness of the practitioner? Attribute Weighting: 7.45 (9.0%).

Enterprise Goodwill Attributes

1. Years Practice in Existence
   How long has the practice been in existence under current management and operational control? Attribute Weighting: 6.55 (9.3%).
2. Practice Advertising
   Does the practice advertise under the practice name in local media?. Is the advertising effective in reaching the local user market? Attribute Weighting: 3.18 (4.5%).

3. Recognizability of Practice Trade Name
   Is the practice known by a recognizable trade name or by the names of the individual practitioners? What is the strength and identification of the trade name? Attribute Weighting: 4.64 (6.6%).
4. Strength of Staff and Technical Service Providers
   What is the competence level of the staff, technical support, and customer support functions of the practice?. Do client questions result in a prompt response from the practitioner? Attribute Weighting: 6.95 (9.8%).
5. Practice Awards and Recognition
   Has the practice been the recipient of awards or honors in the local community?. Has the practice published articles, brochures, or research that have been favorably reviewed in the local press? Attribute Weighting: 4.91 (6.9%).
6. Number of Practice Locations
   Does the practice offer multiple locations, satellite facilities, mobile services, or on-line capability that improve client accessibility? Attribute Weighting: 4.14 (5.9%).
7. Access to Locations
   Are the practice locations easily accessible?. Is parking adequate and free? Are the offices visible and clearly identified? Attribute Weighting: 5.82 (8.2%).
8. Attractiveness of Facilities
   Are the office areas clean and adequately maintained?. Are special amenities available for children?. Are magazines and browsing materials current and informative? Is information about the practice readily available in the waiting area?. Attribute Weighting: 5.09 (7.2%).
9. Unique Procedures and/or Equipment — Practice
   Does the practice successfully use approved procedures or equipment that are unique or seldom employed by competing practices? Attribute Weighting: 6.32 (8.9%).
10. Profitability of the Practice
    Does the practice consistently generate positive net income? Will the practice likely exist five years from now? Attribute Weighting: 6.64 (9.4%).
11. Demographic Growth in Practice Area
    What are the expected growth trends in the practice area in terms of population, employment, personal income, residential and commercial development, and construction of competing professional facilities? Attribute Weighting: 4.77 (6.8%).
12. Efficiency of Payment Administration & Patient/Client Accounting
    Are client billing, insurance, collections, consultation notifications, and privacy matters handled efficiently, promptly, and with personal courtesy? Attribute Weighting: 6.14 (8.7%).
13. Expected Practice Growth – Next Five Years
    Does the practice plan to expand during the next five years?. Is current labor capacity sufficient to handle anticipated growth?. Attribute Weighting: 5.50 (7.8%).

Sample Professional Practice Analysis

The steps of the Goodwill Assessment System model are better explained through a simple case study. The subject practice is a hypothetical dental practice located in Midlothian, Texas (25 miles southwest of Dallas). The practice has been in existence for 20 years and the subject practitioner has been associated with the practice for ten years. State-of-the-art technology and safety procedures are employed in this practice and the local area is expected to see moderate to high population, residential, and commercial growth in the future.

Based upon an income approach, market approach, and cost approach valuation of the practice, an enterprise value of $425,000 was determined. $53,000 of the value was attributable to net working capital, $100,000 was property and equipment, and the remaining $272,361 was attributable to goodwill (enterprise and personal).

Based upon the characteristics and prospects for the practice and the subject practitioner, a subject rating for the Midlothian practice was entered in response to each of the 26 goodwill attributes (step 3). Individual attribute ratings for the Midlothian practice ranged from a score of zero (level of incoming referrals from practitioners) to a score of ten (access to locations). The weighting for each goodwill attribute was based upon the GAS survey associated with step 2 of this research.

As shown on Exhibit 2, the weighted average rating for the aggregate personal goodwill attributes was 6.4 and the weighted average rating for the aggregate enterprise goodwill attribute was 7.2. The sum of the two weighted average ratings is 13.6 (6.4 + 7.2). An estimated 47.1% of the total goodwill value (6.4 / 13.6) was allocated to personal goodwill and 52.9% of the total goodwill value (7.2 / 13.6) was allocated to enterprise goodwill. The fair market value of the subject goodwill ($272,361) was thus allocated $128,406 to personal goodwill and $143,955 to enterprise goodwill.

Summary

According to the Merriam-Webster On-line Dictionary, goodwill is defined as "the favor or advantage that a business has acquired especially through its brands and its good reputation.". The source of the benefit is shared between elements of the enterprise and characteristics and strengths of the practitioners. The magnitude of the benefit engendered by each source group is based entirely upon the specific attributes, strengths, and weaknesses of each professional practice and the practitioners therein. This research represents an attempt to successfully provide objective logic in this allocation.

Exhibit 1
VAVA Inc. Goodwill Assessment System

Survey of Analytical Assumptions

Please rank the following goodwill attributes in regard to their importance to the overall success of the professional practice and their contribution to the goodwill of the professional practice (0 = not important, 10 = maximum importance).

0	2	4	6	8	10
Not Important		Moderate Importance		Maximum Importance	

	0	1	2	3	4	5	6	7	8	9	10
Years of Experience of the Practitioner											
Expected Practice Growth – Next 5 Years											
Practitioner Licenses and Specialties											
Efficiency of Payment Administration and Client Accounting											
Reputation with Peers											
Demographic Growth in Practice Area											
Age of Practitioner											
Profitability of the Practice											
Unique Techniques, Procedures, or Equipment - Practitioner											
Unique Techniques, Procedures, or Equipment – Practice											
Practitioner Advertising											
Practice Advertising											
Level of Incoming Referrals from Other Practitioners											
Attractiveness of Practice Facilities											
Buy-Sell Agreement in Place Between Practitioners											
Client Access to Locations											
Individual Awards Received by Practitioner											
Practice Awards and Recognition											
Civic Involvement of Practitioner											
Number of Practice Locations											
Practitioner Availability for Patient/Client Visits											
Strength of Practice Staff and Technical Service Providers											
Practitioner Personality and Client Interpersonal Skills											
Years Practice in Existence											
Recognizability of Practice Trade name											
Health of Practitioner											
Other #1											
Other #2											
Other #3											
Other #4											
Other #5											

Please circle or highlight the three attributes that are most important to the continued success of the practice.

Exhibit 2
Subject Professional Practice
Goodwill Assessment System

	Subject Evaluation	Percent Weight	Low Rating	High Rating	Subject Rating	Weighted Rating	
Personal Goodwill Attributes:							
1. Years Experience – Practitioner	10 Years	8.8%	0	10	5	0.4	
2. Licenses & Specialties	Maxofacial	8.8%	0	10	7	0.6	
3. Peer Reputation	Recognized	8.9%	0	10	8	0.7	
4. Age of Practitioner	37	5.8%	0	10	8	0.5	
5. Unique Procedures and/or Equipment	Sleep Dentistry	8.7%	0	10	6	0.5	
6. Personal Physcian	Advertising Magazines / Trade Publications	4.5%	0	10	6	0.3	
7. Level of Incoming Referrals from Other Practitioners	Limited	8.2%	0	10	0	0.0	
8. Buy-Sell Agreement In Place	Yes, with Attainable Value Formula	4.7%	0	10	8	0.4	
9. Practitioner Individual Awards	Recognized	6.8%	0	10	8	0.5	
10. Civic Involvement by Practitioner	Rotary / School Programs	5.7%	0	10	7	0.4	
11. Practitioner Availability for Patient/Client Visits	36 Hours per Week	.5%	0	10	8	0.8	
12. Client/Patient Interpersonal Skills & Personality	Average	10.7%	0	10	5	0.5	
13. Health of Practitioner	Excellent	9.0%	0	10	9	0.8	
Total - Personal Goodwill		100.0%	0	130	85	6.4	**A**

	Subject Evaluation	Percent Weight	Low Rating	High Rating	Subject Rating	Weighted Rating	
Enterprise Goodwill Attributes:							
1. Years Practice in Existence	20 Years	9.3%	0	10	7		
2. Practice	Advertising Magazines / Trade Publications	4.5%	0	10	6	0.3	
3. Recognizability of Practice Tradename	Commonly-Known	6.6%	0	10	8	0.5	
4. Strength of Staff and Technical Service Providers	Experienced and Technically Strong9.8%	0	10	9	0.9		
5. Practice Awards and Recognition	Recognized	6.9%	0	10	6	0.4	
6. Number of Locations	Three	5.9%	0	10	7	0.4	
7. Access to Locations	Frontage on Major Thoroughfares	8.2%	0	10	10	0.8	
8. Attractiveness of Facilities	Clean and Modern; fishtanks and Child Video Area	7.2%	0	10	9	0.6	
9. Unique Procedures and/or Equipment – Practice	Sleep Dentistry	8.9%	0	10	6	0.5	
10. Profitability of the Practice	Profitable for last 17 years	9.4%	0	10	9	0.8	
11. Demographic Growth in Practice Area	5.0% Forecasted Compound Annual Growth6.8%	0	10	8	0.5		
12. Efficiency of Payment Administration & Client/ Patient Accounting	No major complaints; coding always accurate	8.7%	0	10	8	0.7	
13. Expected Practice Growth - Next 5 Years	Strong	7.8%	0	10	8	0.6	
Total - Enterprise Goodwill		100.0%	0	130	101	7.2	**B**

Allocation of Goodwill:	
Total Allocable Goodwill	**$ 272,361 C**
Personal Goodwill	**$ 128,406 C x [A / (A + B)] 47.1%**
Enterprise Goodwill	**$ 143,955 C x [B / (A + B)] 52.9%**

How Reliable is Non-cash Working Capital Reported on the Cash Flow Statement?

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Investors and analysts frequently rely on the non-cash working capital reported on the cash flow statement to access the financial health of a firm. Analysis of the cash flow statements from 98 companies shows that the non-cash working capital reported on the cash flow statement is frequently misstated with a bias towards overstating the cash flow position of the company.

Introduction

Net change in non-cash working capital reported on cash flow statements is supposed to balance with changes in current assets and current liabilities that occurred during the period. An increase in a liability (or a decrease in an asset) account is a source of cash for a firm, while a decrease in a liability (or an increase in an asset) account is a use of cash. Current accounts are accounts due within one year or fiscal period.

Analysts and investors frequently use the non-cash working capital account when assessing the financial health of a business. Working capital tells investors and analysts how well companies are paying their short-term borrowings and how well they are collecting from customers and moving inventory. It also sends important signals to the market of changes in policy that have occurred in the company throughout the year; it can reveal increases in efficiency of inventory turnover, more aggressive credit policy for customers, and an increase in efficiency of paying bills to short-term borrowers, such as suppliers. When the figures reported on the cash flow statement cannot be supported by what is presented on the balance sheet, it becomes difficult to analyze a company's financial health and determine its free cash flow.

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A valuation method used by analysts to estimate a company's intrinsic value is the discounting of its free cash flow[1]. There are two variations of free cash flow that analysts use: free cash flow to equity (FCFE) and free cash flow to the firm (FCFF). The main difference between the two methods is the treatment of debt. Specifically, FCFF keeps cash flows to debt in the free cash flow calculation and is often used when the analyst believes the company's debt level will change in the future; FCFE eliminates the cash flows going to debt and looks at the free cash flow that can specifically go to shareholders.

Both cash flow methods typically adjust earnings before interest and taxes (EBIT) or net income (NI) are reported on a company's income statement. When beginning with net income, depreciation is added back because it is a non-cash expense—it helps reduce pre-tax income but does not affect cash. Capital expenditures are drains on cash that do not show up on the income statement for the period in question. These expenses need to be subtracted because of their effects on cash. Non-cash working capital reflects cash tied up (e.g., credit sales) or essentially loaned (e.g., suppliers paid within 60 days) to a firm. For example, an increase in accounts payable is a source of cash for a firm; eventually suppliers will need to be paid, but for a temporary period this represents cash that the firm can use. The opposite holds true for an increase in a non-cash current asset account (i.e., inventory and accounts payable). An increase in the current asset account results in money being tied up. Misstatement of these variables results in inaccurate free cash flow that can affect analyst recommendations. Siegel (2006, p.39) mentions that the simplest thing a company can do to improve their reported operating cash flow is slow down the rate of payments to its suppliers. Although individual examples of inaccurate reporting can be found in the literature, no in-depth study has yet been undertaken. The purpose of this study is to evaluate the reliability of non-cash working capital reported on the cash flow statement.

1 Analysts typically discount free cash flow because it cannot be as easily manipulated through accounting policy as earnings before interest and taxes (EBIT)—a crude measure of operating income—or net income (NI)—a measure of profitability.

Literature Review

The cash flow statement includes all balance sheet items and shows the change that has occurred to those accounts over the year in terms of cash inflows (source) and outflows (use), and as such, it provides useful information about what the company has been doing over the year. Much research supports the notion as to the usefulness of the cash flow statement (Gup and Dugan, 1988; Jones, 1998; Purr, 2004; Sharma and Iselin, 2003).

The cash flow statement can be prepared using either the indirect or the direct method. Although the CICA handbook prefers the direct method, the indirect method is also acceptable (CICA, Section 1540.21). The direct method presents more information than the indirect method and is better for analysis. Brahmasrene, Shrupeck and Whitten (2004) found in their US study that chief executive and financial officers, managers, investors and analysts mostly preferred the indirect method. However, Klammer and Reed's (1990) study found bank analysts preferred the direct method.

The cash flow statement is divided into three sections: operating, investing and financing activities. (Hoskin, Fizzell, Cherry, 2006) Investing activities focus on non-current assets, financing activities focus on non-current liabilities and shareholders' equity, and operating activities focus on everything else, including non-cash working capital. The operating activities section of an indirect method starts with net income and makes adjustments for non-cash items, such as amortization, gains and losses, and future income taxes (Hoskins, Fizzell, Cherry, 2006; Rosen 2003).

Much literature can be found on various valuation models that rely on cash flows from operations (Beneda, 2003; Brief and Lawson, 1992). For instance, Brief and Lawson's (1992) model uses the financial statement accounting data—specifically the balance sheet and free cash flow—to calculate a rate of return for the company.

In recent years, the cash flow statement's clarity and reliability has been called into question (Broome, 2004; Hill et al, 2003; Kilpatrick, 1998; Rosen, 2003).

In June 1998, the Canadian Institute of Chartered Accountants (CICA) changed the focus of the cash flow statement. The CICA noted, "investing and financing transactions that do not require the use of cash or cash equivalents should be excluded from a cash flow statement. Such transactions should be disclosed elsewhere in the financial statements in a way that provides all relevant information about these investing and financing activities" (CICA: Section 1540, 2006, Para. .46). This change has meant that accountants no longer need to account for transactions that were done without any exchange of cash. For example, if assets were obtained entirely on credit, neither the asset nor the liability would be reported on the cash flow statement. Rosen (2003) mentions that when one item is short-term and the other long-term, not reporting it misdirects and inappropriately increases cash from operating activities and free-cash flow.

Study

As previously mentioned, the purpose of this study is to evaluate the reliability of non-cash working capital reported on the cash flow statement. If the change in the procedure that occurred in 1998 for deriving the cash flow statement resulted in a confusing and unreliable cash flow statement, one could argue that the statement prior to the change should be clear and understandable, and as such, the following two hypotheses were tested:

H1: Is there a noticeable difference in the calculated net change in working capital off the balance sheet and the reported amount on the cash flow statement pre- and post-1998?

H2: Has the difference between the calculated and reported amounts for non-cash working capital become progressively better or worse over time?

Methodology

A list of publicly held Canadian companies was obtained from a Canadian corporation list. In order to be used in the study, 1) the company had to be in existence from 1996 to 2005, 2) it had to be a Canadian publicly traded company that used Canadian Generally Accepted Accounting Principals (GAAP), and 3) it could not be acquired during the study period by another company used in our sample. Insurance companies and other companies that were in the investing, real estate, or financing industries were excluded from the study, as they produce financial reports that would not be useful to the study.

The annual financial statements for the companies used in the study were obtained from the System for Electronic Document Analysis and Retrieval (SEDAR) website (www.sedar.com). The company's financial statements were analyzed over a three-year period (1997, 1998 and 2004). If a company under review had a year-end other than December 31st, the financial statements for the year prior were analyzed (e.g., instead of using the 1997 financial statements, the 1996 financial statements were used). This ensured that the statements released prior to the change in 1998 were being analyzed.

Some of the companies in the study released their financial statements in United States dollar amounts. To ensure that the results were comparable, the United States dollar amounts were converted into Canadian dollar amounts using the exchange rates reported by the Bank of Canada for the period under review (Bank of Canada, 2006).

To conduct the comparison, the net increase or decrease in current accounts found on the balance sheet was calculated, subtracting out any cash and cash equivalents and other accounts that were noticeably accounted for elsewhere in the cash flow statement. If the company had a net change in working capital note in its financial statements, only the current accounts mentioned in the note were included in the calculation. Most of the differences found were not in the actual accounts that the companies used to arrive at the net change in working capital figure found on the cash flow statements, but rather in the computed and reported numbers.

The difference between the calculated figures from the information obtained from the balance sheet information with the reported figure on the cash flow statement was recorded as overstated, understated, or balanced (i.e., equivalent). If a difference occurred, that dollar amount difference was tested for materiality. The CICA Handbook states, "materiality is the term used to describe the significance of financial statement information to decision makers" ("CICA: Section 1000", 2006, Para. .17). The test used for materiality was 1% of total assets (Pany et. al., 1996, p.235). This meant that if the difference in the amount was greater than 1% of the companies' total assets it was material. If the difference "is material it is probable that its . . . misstatement would influence or change a decision" of a user of financial statements ("CICA: Section 1000", 2006, Para. 17).

Results of the Study

The study produced interesting findings. Materiality has steadily increased over the three years. In 1997, the number of companies that had material differences was 35.71%; by 2004 that increased to 45.92%. The amount of the discrepancy between the two figures has been steadily increasing since 1997. There was an overall increase (10.21%) between the years 1997 and 2004 in the number of companies that had material discrepancies (see appendix 3).

In 1997, only 16.33% of companies had no difference between the two figures. That number increased to 19.39% in 1998, but sharply decreased to 6.12% in 2004. Since the change in the CICA handbook occurred in 1998, it is possible that not all companies at that time had changed their means of accounting for items on the cash flow statement. This means that 1998 could be viewed as a hybrid year, and the real focus should be on the drastic change from 1997 to 2004, with a decrease of 10.21%. Only six companies out of the 98 analyzed were able to balance in 2004. The number of companies that have overstated their net changes in working capital account has increased over the years. In 1997, 37.76% of companies in the sample overstated the results; this amount increased to 40.82% in 1998, and by 2004, almost 50% of the companies reported overstated results (see appendix 2).

Analysis of Overstated and Understated Differences

Of the 98 companies analyzed, 16.3% balanced in 1997. 75.0% of the companies that balanced in 1997 also balanced in 1998, although only 12.5% of the 1997 balanced companies still balanced in 2004. Only two companies out of the 98 companies balanced in all three years: Newfoundland Light and Power Co. Ltd. and Vasogen Inc. (see appendix 2).

Of the companies that were overstated in 1997, 67.6% were overstated in 1998, and of the companies that were understated in 1997, 62.2% were understated in 1998. The results from 1998 to 2004 show a similar trend; companies that overstated the results in 1998 were 60% more likely to be overstated in 2004, and companies that were understated in 1998 were 56.4% more likely to be understated in 2004. These results tell us that if a company was overstating (understating) the working capital number in one year, they were more likely to continue overstating (understating) it in the following year. The results of the cross analysis between 1997 and 2004, though, produced even results. If a company was overstated (understated) in 1997 and produced a difference in 2004, there was a 50% chance of being overstated (understated) in 2004 (see appendix 2).

Analysis of Materiality

In 1997, companies that produced overstated differences between the calculated and reported net changes in working capital were 70.3% more likely to have material differences; the companies that produced understated differences were 53.3% more likely to generate immaterial differences. The opposite was the case in 1998 (see appendix 3).

In 1997, if a company was overstated, it was 70.3% more likely to be material, and in 2004, of the 49.0% of companies that were overstated, 52.1% of them were material. This shows that the conservatism principal, which states that when computing financial statements, "uncertainty exists, estimates of a conservative nature attempt to ensure that assets, revenues and gains are not overstated and, conversely, that liabilities, expenses and losses are not understated" ("CICA: Section 1000", 2006, Para. .21(d), is not fully being adhered to (see appendix 3).

Conclusion

The analysis found that balancing to the net changes in working capital account on the cash flow statement from the information found on the balance sheet has become progressively more difficult over time. More companies are finding differences between the calculated and reported amounts and these differences are continually becoming larger as a percent of the company's total assets. The results in 2004 show a drastic increase in the number of companies producing material differences. The research also shows a bias towards overstating the reported figure, which has serious consequences for the users of financial statements. Dealing specifically with free cash flow valuations, using an overstated working capital account results in a lower value for the firm than is the case. These findings question the reliability, credibility, and usefulness of the cash flow statement.

The question arises as to whether companies are taking advantage of the change in the CICA handbook. No longer having to account for non-cash transactions has given companies more freedom to use this account as a balancing account to ensure that the cash and cash equivalents number found on the cash flow statement balances to the number reported on the balance sheet, since the cash and cash equivalents number is a lot more difficult to manipulate.

It should be noted that 1998 might have been a hybrid year—not all companies may have fully moved over to the new accounting principals that year. Therefore, further research needs to be conducted to determine whether the increase was a direct result of the change, or just something that has become progressively worse on its own over time. At least for the time being, readers of financial statements should be cautious using and interpreting the cash flow statement.

Appendices

Appendix 1: Summary of results for the three years

	1997		1998		2004	
Not Material	63	64.29%	58	59.18%	53	54.08%
Material	35	35.71%	40	40.82%	45	45.92%
Total	98	100.00%	98	100.00%	98	100.00%

	1997		1998		2004	
Balanced(0)	16	16.33%	19	19.39%	6	6.12%
Overstated(1)	37	37.76%	40	40.82%	48	48.98%
Understated(2)	45	45.92%	39	39.80%	44	44.90%
Total	98	100.00%	98	100.00%	98	100.00%

Appendix 2: Cross tabulation of overstated and understated differences between years

The Code used for Overstated and Understated	
0	Balanced
1	Overstated
2	Understated

97 over/under * 98 Over/under Crosstabulation

			98 Over/under 0	1	2	Total
97 over/under	0	Count	12	1	3	16
		% within 97 over/under	75.0%	6.3%	18.8%	100.0%
		% within 98 Over/under	63.2%	2.5%	7.7%	16.3%
		% of Total	12.2%	1.0%	3.1%	16.3%
	1	Count	4	25	8	37
		% within 97 over/under	10.8%	67.6%	21.6%	100.0%
		% within 98 Over/under	21.1%	62.5%	20.5%	37.8%
		% of Total	4.1%	25.5%	8.2%	37.8%
	2	Count	3	14	28	45
		% within 97 over/under	6.7%	31.1%	62.2%	100.0%
		% within 98 Over/under	15.8%	35.0%	71.8%	45.9%
		% of Total	3.1%	14.3%	28.6%	45.9%
Total		Count	19	40	39	98
		% within 97 over/under	19.4%	40.8%	39.8%	100.0%
		% within 98 Over/under	100.0%	100.0%	100.0%	100.0%
		% of Total	19.4%	40.8%	39.8%	100.0%

97 over/under * 04 over/under Crosstabulation

			04 over/under 0	1	2	Total
97 over/under	0	Count	2	9	5	16
		% within 97 over/under	12.5%	56.3%	31.3%	100.0%
		% within 04 over/under	33.3%	18.8%	11.4%	16.3%
		% of Total	2.0%	9.2%	5.1%	16.3%
	1	Count	1	18	18	37
		% within 97 over/under	2.7%	48.6%	48.6%	100.0%
		% within 04 over/under	16.7%	37.5%	40.9%	37.8%
		% of Total	1.0%	18.4%	18.4%	37.8%
	2	Count	3	21	21	45
		% within 97 over/under	6.7%	46.7%	46.7%	100.0%
		% within 04 over/under	50.0%	43.8%	47.7%	45.9%
		% of Total	3.1%	21.4%	21.4%	45.9%
Total		Count	6	48	44	98
		% within 97 over/under	6.1%	49.0%	44.9%	100.0%
		% within 04 over/under	100.0%	100.0%	100.0%	100.0%
		% of Total	6.1%	49.0%	44.9%	100.0%

98 Over/under * 04 over/under Crosstabulation

			04 over/under			
			0	1	2	Total
98 Over/under	0	Count	3	9	7	19
		% within 98 Over/under	15.8%	47.4%	36.8%	100.0%
		% within 04 over/under	50.0%	18.8%	15.9%	19.4%
		% of Total	3.1%	9.2%	7.1%	19.4%
	1	Count	1	24	15	40
		% within 98 Over/under	2.5%	60.0%	37.5%	100.0%
		% within 04 over/under	16.7%	50.0%	34.1%	40.8%
		% of Total	1.0%	24.5%	15.3%	40.8%
	2	Count	2	15	22	39
		% within 98 Over/under	5.1%	38.5%	56.4%	100.0%
		% within 04 over/under	33.3%	31.3%	50.0%	39.8%
		% of Total	2.0%	15.3%	22.4%	39.8%
Total		Count	6	48	44	98
		% within 98 Over/under	6.1%	49.0%	44.9%	100.0%
		% within 04 over/under	100.0%	100.0%	100.0%	100.0%
		% of Total	6.1%	49.0%	44.9%	100.0%

Appendix 3: Cross tabulation between overstated/ understated and material/immaterial for each year.

The Code used for Overstated and Understated	
0	Balanced
1	Overstated
2	Understated

The Code used for Materiality	
0	Material
1	Immaterial

98 Over/under * 98 material Crosstabulation

			98 material		
			0	1	Total
98 Over/under	0	Count	19	0	19
		% within 98 Over/under	100.0%	.0%	100.0%
		% within 98 material	32.8%	.0%	19.4%
		% of Total	19.4%	.0%	19.4%
	1	Count	18	22	40
		% within 98 Over/under	45.0%	55.0%	100.0%
		% within 98 material	31.0%	55.0%	40.8%
		% of Total	18.4%	22.4%	40.8%
	2	Count	21	18	39
		% within 98 Over/under	53.8%	46.2%	100.0%
		% within 98 material	36.2%	45.0%	39.8%
		% of Total	21.4%	18.4%	39.8%
Total		Count	58	40	98
		% within 98 Over/under	59.2%	40.8%	100.0%
		% within 98 material	100.0%	100.0%	100.0%
		% of Total	59.2%	40.8%	100.0%

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