685

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Hi, I'm Michael sack OMalley, certified valuation analyst and certified public accountant. And this is the second course in goodwill in small service business is a guide for attorneys and judges. You'll recall from the first part of this course that we looked at the widely used methodologies for appraising enterprise goodwill and small service businesses. We recognize that the most prevalent form of valuation in the marketplace are rules of thumb simple little rules or formulas, multiples, usually of gross revenue that allowed buyers and sellers and Business Brokers to come up with a quick and seemingly precise number for the value of a business with enterprise goodwill. We also saw in our analysis that these these rules, these simple rules, were utterly opaque. We don't know where they came from. We don't know what the economic rationale is. And they also are inflexible, different businesses with different aspects of their operation could not be factored in to specific appraisal situations. Recognizing that rules of thumb are not sufficient, a body of appraisal theory and appraisal practice was developed. We looked at the three common methods of appraising goodwill, that are utilized by experts in the reports that you review in trials. And we saw that there were three three major types income methodology, asset, methodology and market methodologies. And we looked at in some detail, the theory and application of these different methods. And sadly, we concluded that there really was not much substance and value to the approaches being used. And others the results of applying these different methodologies did not lead to fair reasonable values of enterprise goodwill and the kind of small businesses were concerned with. So that's that, that that first course, is a pretty grim, grim summary. What do we do? Are we stuck with rules of thumb? If we have bad, you know, one, one theory might be is okay, if the marketplaces uses rules of thumb, let's accept the rules of thumb. If standard, applied, appraisal theory of the experts doesn't give us anything better. Why not use the rules of thumb? Well, I think we can do better. And I think we should do better. So the second course, the second part of this course, is going to introduce a methodology that I believe

provides fair and reasonable appraisal values and realistic values that can be used in buying and selling businesses and in valuing businesses and litigation contexts. So what we need to do is we need to rethink from the ground level up the nature of enterprise goodwill, and what really constitutes a fair value for enterprise goodwill. I think that when we drill down to the economic substance of of enterprise goodwill, what we're really looking at is a situation where buyers are paying sellers, in effect a commission to have access to the customers, the seller is bringing the buyers. So when we want to look at the value of goodwill, what we really want to do is look at a negotiation of a fair commission rate for having access to clients that the buyer otherwise would have to compete for. So thinking about goodwill, and the value of goodwill, as a fair commission rate. How would a negotiation proceed? How would the buyer view goodwill? And how would the seller view goodwill in negotiating a fair commission rate to have access to the sellers customer base?

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Well, the one thing that I think that the buyer would set down as a fairness principle is that the seller should only get a commission only get a percentage of the future profits on actual customers that stay with the company. In other words, it makes no sense for the buyer to pay for customers that don't come the fact that if I if I'm selling a dental practice with 300 patients, and only 200 of them show up, I should not have to pay revenue as if 300 patients Are there. So we only want to pay a commission, we only want to pay for that portion of the customer basis future revenue that continues beyond the equity sale, the buyer not only will not want to pay for customers that don't come after the sale, the buyer also has no reason to pay any share of revenue, any Commission on revenue, that is that derives from customers that come to the buyer after the equity sale. So we have basically, the idea, one idea from the buyers perspective is I'll only pay you for customers that actually transfer and I won't pay you for any customers that I am able to acquire after the equity sale. The other situation is this, I don't want to pay for customers or clients or patients, I don't want to pay a share of revenue. Once they leave the firm, I'll pay a share of the revenue as long as they keep remaining customers and keep patronizing the firm, but I don't want to once they leave, I don't want to pay the commission rate. But the reality, of course, is that all customers, all patients, all clients are going to leave the practice at some time, because they're going to move away, they're going to die, they're going to retire or they're going to go to a competitor. So all these customer base is made up of individual human beings are ultimately going to leave the firm. So, we have by using these rules, we have certain constraints on what a reasonable price should be. Now, there are other constraints as well, the value has to be constrained by local market conditions. And they also have to be determined this has to be a result of the value of rivalry has to be the result of a negotiation. Now, the buyer, when the buyer acquires a new customer base, they're going to acquire the responsibility for managing and servicing that client base. So another key feature of the fairness criteria in the negotiation is going to be I have to as a buyer, assure myself that after the cost of servicing the ordinary expenses of

servicing the additional clients, and after paying the commission rate, the cost of the equity, I have to ensure that I have received enough compensation or profit to make the process of assuming the extra service burden the extra management burden worthwhile. So these principles, these fairness principles, set the parameters set the constraints on what the value of goodwill should be. Now, when a seller is looking for a buyer, in these kinds of service businesses, there are only there are only certain types of individuals that are capable and motivated to acquire a,

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a business like this when you're talking about medical practices, almost always, if it's a dental practice, or chiropractic practice or a veterinary practice. Almost always the owner manager who is acquiring the firm has to be a veterinarian, a dentist, or a chiropractor. If you're talking about an accounting or bookkeeping firm, you are almost always going to need somebody who has the requisite skill and credential to service those clients a CPA or enrolled agent. Likewise, in some of the non professional services that we've talked about a poor maintenance person, a landscaper, a housecleaning, whoever the owner is has to have the requisite skills to either perform the service themselves or manage and supervise employees to to perform those services and this creates a management burden and that has to be compensated for and the compensation that the new owner has to receive has to be net of after paying all the expenses all the wages all the overhead, all the direct expenses that are associated with running and servicing a business. plus of course it has to be net of the the actual cost of acquiring the customer base. So the commission rate has to be constrained to meet those requirements. Not everybody in these businesses, as I said is capable of acquiring these kind of businesses, not only do they have to have the right credentials, the right experience the right skill, to manage and service the particular business, they also have to be motivated to do it. And not everybody is motivated, not everybody who has the skill to be an accountant or skill to be a dentist or skill to be a landscaper has the motivation to want to run that kind of business lot of people. And in fact, probably most people will have these skills are more than happy to be employees. So matching up, a matching up a buyer and a seller when a seller has a successful business with enterprise goodwill with the right buyer, is not an easy thing. And that's why of course, we have these brokers who help find the right buyer. There is a an additional difficulty that almost always occurs when you have an actual transaction where an owner departs. And that of course, is that the owner is departing a successful business profitable, successful business where they're receiving a fair level of compensation or profit. And they are walking away for a reason. They're working away for a reason that you know, either they've reached retirement age, they become disabled, they're moving away, whatever that reason is, they're walking away from a successful business. They're all seeing walking away for, you know,

from a situation where the customers are happy, because they wouldn't have built a successful business had they not done a good job for the clients, patients or customers. So that creates an additional burden on the new owner, the new owner has to convince the clients Not only did the clients have to give the new one are a chance to at least audition to come once to see whether the new buyer can offer the same quality and level of services they're used to receiving from the old owner. But guess what they don't have access to the new owner. And the new owners experience necessarily for any length of time. Now, it is traditional in most of these transactions for the departing owner to provide some sort of short term transitional services, but it's usually short term. So the question then becomes who is most capable of exploiting the goodwill who is most, you know, who is most capable of taking the customer base that's being transferred to them and servicing it in the most profitable fashion. And that is a real basic problem in these transactions that has to be overcome. Now, again, motivation is important skill is important. The optimal buyer, we can define in any given appraisal situation, as the buyer most capable of extracting profits from the customer base that has been transferred. Now I have to I have to back up here to talk a little bit of accounting terminology. I've used the word free cash flow in the first session, I've used the word profit in this session have used net income.

13:33

There is an issue that is very complicated when we deal with small service businesses that have enterprise goodwill. And all of these small service businesses have the a full time owner manager operating the business. When you have a full time owner manager operating a business, the distinction between what is compensation wage versus profit is very, very arbitrary. Generally Accepted Accounting Principles and tax rules make the issue particularly complicated if you're an owner of a an unincorporated entity which would could be a proprietorship could be a partnership could have a limited liability Corporation Limited Liability Partnership. Generally Accepted Accounting Principles don't even begin they there's no recognition of a distinction between profit and wages. There's no there's no provision for for categorizing any cash flows that go to the owner operator of that kind of business as profit or wage. It's all basically called owner distributions or owner draws, or some similar term. If you are dealing with a corporation, there's two types of corporations recognized by the tax code an S corporation or C corporation and he Again, the issue of distinguishing between what is income for taxable purposes versus what is wages is very difficult to determine. With c corporations, there is a tax incentive to classify all forms of cash flow that, that the owner manager receives and operating the business as wages. When the business is operated as an S corp as many of these small businesses are, there's a tax incentive to classify all cash compensation paid to the owner, as profit or net income. These are tax motivations. And again, summarizing, generally accepted accounting principles and tax rules make the problem more difficult. So when you as a potential buyer or you as an appraiser looks at an income statement, looks at a tax return. What you're looking at is a mix often of wages and profit. And you don't know where the boundary line is. You will may recall from the first session

that the income methodology talks about capitalizing and discounting free cash flow. Well, free cash flow in that methodology does not include owner wages. So one of the disputes you might see in your contested litigations is the question of how much of the the cash flow that goes to the owner is profit versus wages. What I am proposing in my methodology is to forget making the attempt to to to try to define what is profit, and what is wage. Instead, what I propose to do is look at all cash flows and call those cash flows discretionary earnings. In effect, it doesn't matter how you classify them in my methodology doesn't matter whether you call them wages, whether you call them profits, or however they're classified for tax or generally accepted accounting principles. If these cash flows are available to the owner after paying all the expenses to third party all the necessary and reasonable expenses to third parties, then those earnings I call them discretionary earnings are computed and and used as the driver of value of enterprise goodwill. Now, I should point out that discretionary earnings is a relative and not absolute property of small firms. an owner who provides more direct services will have a higher discretionary earning rates than one who relies on other employees to provide the services. Similarly, a higher overhead firm, a firm with more fixed expenses is going to have a lower discretionary earnings rate. Now, one of the interesting things, that is a fact about the kinds of small businesses that get sold with enterprise goodwill is that generally, the most optimal buyers, the ones that are most able to take advantage of a customer base are generally going to be fall into one of two categories, they're either likely to be smaller, then the seller

18:27

or larger than the seller, very rarely are they operating at the same scale. Frequently you will have with the sale the small practices and employee, a skilled employee who is looking to become an owner of a practice or an owner of a small business, or you'll have a larger competitor firm already in the market looking to acquire a smaller firm. Those are the kinds of typical optimal buyers that you're going to have in the marketplace. Now, recognizing this, we have market situations, which create upper bounds to enterprise goodwill. And what in effect the commission rate the total commission rate as an optimal buyer is willing to pay a seller of a business with enterprise goodwill and the upper bound value is going to depend on the scale of operation of the optimal buyer. Larger regional buyers are going to use what I call the maximum competitive advantage. Local competitive firms are going to use what I call a compete or by estimate and employee buyers are going to use what I call a differential compensation estimate. This slide and this table is demonstrate is going to demonstrate what I mean by maximum competitive advantage. I define maximum competitive advantage as the present value of all discretionary earnings derived from transfer customers in the future. And this this this example is a dental practice is 450 patients, the optimal buyer is assumed to be a large regional firm expects and this firm expects 400 customers to transfer in. And in this assumes that they're going to lose 5% of the customers each year, we call that an attrition rate. And we also assume in this example, that the discretionary earnings per customer per year are going to be $500. Most importantly, I'm going to

use a present value factor based on a 4% discount rate. And this is not risk adjusted. This is just time value of money inflation adjustment, discount rate. So what you see in this table, is, you see that, each year, they expect so many of the transferred customers to stay, and so many leave. And you can see that using a 5% attrition rate that it goes down 400 to 380. And assuming that they generate $500 per year, this is the annual amount of discretionary earnings that this company could expect to derive from the transferred seller. Seller practice. Now, what does this mean? It means that there's an upper bound value to that customer base that is being sold, it means that the very most that this company expects to generate in discretionary earnings, in effect benefits to the new owner to the buyer, that regional company is on a present value basis, a little over 1,200,000. What What is the significance is that from the appraisal standpoint, does that mean that they will buy it for 1,200,000? No, it does not mean that because if they pay 1,200,000, and that's all they get back, nothing is left to the new to the new buyer. What this does, though, from an appraiser from a practical standpoint, for the for the appraisal

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process is to say this would be the very most irrational buyer would pay not it won't pay that amount, but it will pay no more than mF and this is actually you might think, Okay, well what's the big deal with an upper bound? All the methodologies that we talked about in the first part of this course and particularly the income methodology using the Gordon growth factor, said no theoretical upper bounds, but my methodology recognizes market conditions recognizes optimal buyers and recognizes that given optimal buyers and market conditions, that there were absolute upper bounds that no rational bid will be given for the enterprise goodwill, a step in the right direction, I think. So, if the optimal buyers a larger national regional buyer, looking at the maximum competitive advantage and estimating that provides an absolute upper bound value for a rational bid for customer base. So assume that we have a local competitor to the day only have a larger dental practice, but it's a local dental practice, how are they going to establish an upper bound? What I believe is they're going to use what I call a compete or by calculation or competing by forecast. The next slide demonstrates this key a computer by forecast basically is equal to the present value of the difference between the discretionary earnings or buying versus competing over a time period needed to attain a targeted customer base. So we're still dealing with a smaller dental practice as the seller assume that the buyer is a local dentist prac a dental practice with 400 patients. Assume also for this example, it that they now have 300 patients but they'd like to grow to 400 patients, the smaller dental practitioner who is retiring has 125 patients. So this looks like a good fit for them. Now the buyer expects that at least 100 of those 125 patients are going to transfer. It's always in all of these situations. Not every not every patient client or customer is going to heed the recommendation of the seller to go with a new buyer. But in most cases, we can assume that the percentage of people in that customer base or at least going to give the new buyer a chance. Now the potential buyer that we're talking about this, this this larger firm, this larger practice that is seeking another 100 patients,

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they have an alternative. Any competitor always has an alternative. They don't have to buy a practice to expand,

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they can gain an additional 100 patients over time by competing in the market. Now I pointed out yesterday and it's it's absolutely true that when you're dealing with a competitive service business where skill is very Very important, it's not advertising doesn't generally get the job done. Usually, it's referrals. Usually, it's placement of a website of being in the right place at the right time. Because when people are satisfied with their service providers, they don't generally move very easily. So most of the new customer growth comes from people who are moving into the area for the first time. And, and those few percentage of the local population who might be dissatisfied with the current service provider, but there's not a lot of opportunity through advertising. So generally growth, when you have a practice is relatively small over time unless you buy an existing practice. So here though, is the compete or buy, process, put in a forecast form. We assume that each patient per year is going to generate in discretionary earnings $1,000 in discretionary earnings. Now, if the customers, the number of customers this this, this buying practice will have, if they buy the smaller practice in year one is going to be 400. Now we're going to assume in year two, year three, year four and year five, that whatever attrition exists, is going to be offset by new clients. And that's a reasonable assumption. Now, not all of it will be, you know, there's going to be attrition to the customer base, but they'll also be picking up no customers. Now, instead, if the practice with 300 patients can continues to compete for clients, instead of buying the smaller practice what happens, they have 300 currently, and let's assume as reasonably, we might, that they're going to pick up about 25 new patients per year. So over five years, it will take five years for them to reach their targeted goal of 400 patients. So the advantage them, the maximum advantage to them is the difference between the amount of money they would make buying the practice versus competing. And you can see how that's calculated. in year one, if they buy the practice, they have immediate access to 100 more patients, so that gives them $100,000 more revenue. in year two, they're going to have 75 more patients than they otherwise would have that gives them 75,000, and so forth. So taking again, a discount rate just based on time value, or inflation factor of money using 4%, the most that they would be willing to pay this local competitor will be willing to pay would be about 231,350. That doesn't mean they will pay it because this is an upper bound value. This is the most that a rational buyer of this sort a local competitor will be willing to pay. Because of course, if they pay all of it, they had no advantage at all, they've given away the advantage by paying every dollar of the increment to to the seller. Now the third type of potential buyer who could be the optimal buyer is going to be an employee, an employee who is now either working for the dentist themselves that selling the practice or working for another dentist. Now, they also will have an upper bound that they are rational upper bound that we can use to at least cap the appraisal set that upper bound.

And in this case, what we're talking about is what I call differential compensation where we have an employee by and the different differential compensation, you can see this next slide is equal to the present value of the discretionary earnings from acquiring less the present value of the future compensation. If the buyer remains an employee, just as the competitor buyer has an option of competing versus buying, the employee also has an adult alternative and that alternative is to stay an employee. So what the differential compensation calculation that you see on this slide does is it basically measures the absolute upper bound benefit to the employee to become the owner employee of the practice. And here again, you'll see here's the differential,

29:36

the discretionary earnings in the first column, assuming that they buy the practice versus their current wage level, and it would go up over time with wage increases and the difference and I assumed a 20 year I use the 20 year factor for assuming that this person is 4045 years of age and this would be the period of time we will compare their career as either an employee or as an owner manager, and we would see that, before taking account of the cost of buying the practice the very most that they would be willing to pay to have access to buying the practice is the benefit the present value of the benefit of a little a little under $440,000. Again, the idea between these of these, these measures the computer by the maximum competitive advantage with differential compensation is to set a rational upper bound, the these measures are not what these optimal buyers would actually bid. But it does set a cap on what a rational upper bound might be. And it takes into account who is buying, you know, is the buyer regional firm, is the buyer, a competitor? Is the buyer, an employee? And I believe in most appraisal situations, when you look at the kind of practice that is being appraised the kind of enterprise goodwill and the kind of operations and the scale of operations. In almost all cases, reasonable people can agree what the optimal buyer would be, would it be a large corporation? Would it be a competitor, would it be an employee, we can determine the facts and circumstances can allow us to do that. And once we know that, we can pretty well drill down to using these kind of calculations what the maximum amount of irrational there would be, of course, we need more than a rational bit. The upper bound estimate, as I indicated on this next slide, is computed before taking into account the amount that the buyer will pay the seller. The upper bound estimate determines the basically the value pie that is being divided between the buyer and seller in the negotiation of exchange price. And reiterating, if the buyer offers nothing to the seller, the buyer keeps all the value. That's one extreme, don't pay anything for it. If the buyer offers the upper bound value to the seller, the seller keeps all the value. Stressing again, the upper bound value is the starting point for negotiation of a fair equity prices is the maximum that any woman pays, it basically says this is the pie the value pie that we're dividing. So, we need to go beyond the upper bound, we need to have a method of looking at what is the rational bid given that we know the maximum value of the customer base to the particular optimal buyer, how do we go about refining that bid. And my methodology says that buyers will use reference levels of discretionary earnings to determine a fair bit an employee

buyer may use what the seller had his discretionary earnings at the time of the sale as a reference point. So if the person you know, if the if the seller was making $100,000 on this particular practice, or $85,000, then that would be a reasonable reference price for saying that is what I should be getting for servicing those clients. a competitor, buyer on the other hand, may use past realized discretionary earnings rates as a reference point. Now, there's a little bit of an inherent paradox here. If the buyer pays anything to the seller, for the customer base, the buyer is almost always going to receive a lower discretionary earnings, then the seller realizes at the time of sale, it's just it's just the is the arithmetic. If if you're if it if you're going to have to pay the the seller anything is going to reduce your available discretionary earnings. So what the optimal buyer recognizes that it may be worthwhile to accept less than the reference level, but only for a limited time. So some examples, I think we'll clarify here is a case. In this next slide, we have a retiring lawn maintenance owner who employs an optimal buyer who happens to be our niece, who now earns $45,000 per year, the uncle is owner earns $80,000 of discretionary earnings on a gross revenue of $160,000. Now the nice will accept a net discretionary is less than $80,000. If within a short period of time, her discretionary earnings will rise close to that level. So here's a hypothetical structure bayad over five years, you have the gross revenue from the acquire customers you have. And here again, I'm not taking attrition into account because I'm assuming as

34:38

is mainly the case here that whatever is lost will be recovered in new in new customers. So the old owner was able to attain at the time of sale, a 50% margin basically they had discretionary earnings of $80,000 per year. The newer the nice now who current He makes $45,000 a year on a five year buyout would be willing to gradually bring her level up to 80,000 over five years and doing it on a pro rata basis that would allow a buyout to the to the uncle of 28,000, in year 120 1000, in year 220 13,000, in year three and 7000. In year four, when you take that and discount that at 4% present value, a reasonable bid for that particular practice from the nissa standpoint would be about $65,000. This allows the niece to attain a reasonable level of compensation not right away, but over a five year period. And it also gives her immediately an increase a significant $7,000 increase in the first year. And then again, she gradually ramps it up to 80,000. Now instead, look at this next slide. Assume that the competitor buyout is not an employee, but isn't a competitor landscape firm. Now this landscape firm on his own book of business, the owner of that landscape from assume that they make a 40% discretionary earnings, right now there's 40% of every top dollar of every gross revenue dollar that comes in from his customers, he gets to keep where she gets the key. If that competitor, buyer is willing to accept only a margin of margin less than 40%, or 35%, over five years, look what that could could lead to as a fair bit. Again, we're assuming the same 160,000 and gross a customer is quite now a typical margin for the buyer. Again, another firm would be 40%, that would be $64,000. But if they were willing to accept 35%, again, not forever, but just for a five year period, then there would be an $8,000 difference that

that buyer would be willing to pay the seller and the present value basis. That would be about $35,000 bid for that Lance, that same landscape firm. Now this is an interesting set of two examples. Because if we go back to the other slide, we see the nice would be more than willing to pay 65,000. Well, the competitor would only pay 35,000. So who is the optimal buyer? Well, the optimal buyer is clearly the one who will read the you know the higher bid at 65,000.

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what we take from this, and what my method tries to do, and I think succeeds in doing is setting rational upper bounds based on market conditions, trying to identify optimal buyers, and then trying to say that these optimal buyers, whoever that is, is going to have a reference level or targeted level of discretionary earnings that they're going to aim for when they negotiate the actual equity price. And want to stress that there can be and often are deviations from fair these fairness reference level prices, there's no absolute rule that an employee buyer must realize the same level of discretion earnings as the seller either in the short run or long term. There's no absolute rule that a competitor firm buyer must realize the same de you know, the past the there past the different discretionary earnings rate as either in the long run in the short run, the objective economic conditions can dictate whether a bid is rational, but only individual buyers and sellers going to determine if a bid is fair. So fairness is in the eyes of the beholder. So it's very important to recognize that in negotiations, it is a matter of fairness, fairness is going to be a big part, the both the seller and buyer are going to look at the situation and the seller is going to look and say, Look, I built up this base, I'm able to give you immediate access to clients, customers or patients that you otherwise would have to compete for. And it's not easy to find in these kind of markets. And so I'm deserve a commission on this. And the buyer is going to say yeah, but I've got to service these clients, I've got to take the responsibility, I've always got to take the risk that if I don't do a good job, I'm gonna lose a lot of them. And so I have to be compensated for taking on that responsibility. And so somewhere in the middle, both parties have to feel that they're being given a fair compensation the seller a fair compensation for having developed the customer base that they can transfer and the buyer has to feel that their compensation net of all expenses and net of the actual amount they pay in equity in effect, the Commission has to leave them with a good enough compensation level to make it worth the effort. Objective rules are not going to necessarily cut it. But what we can do is we can say here are reference levels who are upper bounds. And we can say that within certain parameters, we would expect reasonable opera optimal buyers and sellers to come to a negotiated price somewhere in a certain range. And that's what my method strikes, you know, attempts to do. Now as an attorney, as judges, what you've come to expect in those 75, page 100 page, expert reports, when all is said and done, and

it's on the first page and you go through all the tables is you'll say it you know, in my professional opinion, the value of this equity is worth exactly X dollars. Similarly, if you're a business broker, and you're telling a prospective, brokerage client or selling the practice, and they pull a rule of thumb, you're your business is worth X dollars precisely. And precision is what is being sold here. The rules of thumb scalpers precision, the Met various methodologies we talked about in the in in the first part of this course, promise, precision, these are false promises, these are false certainties. All of them are based on a myth that somehow we can exactly tell what level of revenue what level of of discretionary earnings, the the customer base is going to generate in the future.

41:51

We all agree all economists, all appraisers, all investors agree that the value of an equity of a closely held firm is a function of the future discretionary earnings that the firm will generate. We agree with that. But what do we also know about the future, we know about the future that is uncertain. Using non probabilistic non statistical methods to predict future firm revenues is foolish. We want to see again, look at the Gordon you know, the Gordon growth factor we talked about at the end of the session, the first session, which is certainly assumed the cash flows will be generated forever, with the firm realizing the same growth rate, year after year. That's an absurd assumption. It's a static assumption and it's an absurd static assumption. Current appraisal practice in theory put little or no emphasis on meaningful forecasting and all emphasis is on picking you know, risk adjusted hurdle rates and discount rates and they totally avoid the uncertainties and the variable nature of work of the future. If we are going to have economically reasonable and fair appraisal practice, it must involve probabilistic forecasting. I have a slide here which has a quote from Warren Buffett and it says it all it is better to be approximately right than precisely wrong traditional methods, appraisal methods, they basically give you the precisely wrong answers, rules of thumb, precisely wrong answers. What I am talking about in my methodology is using forecasting tools, statistical and probabilistic reasoning to come up with reasonable ranges for appraisal values, when I was giving you examples of the computer by the maximum competitive advantage, the differential compensation, I was giving you precise numbers as to what the amount of revenue was going to be generated per customer, I was giving you precise numbers on the expected number of customers that were going to be transferred in. And I was also going to give you precise numbers and how how much loss that would be how much attrition that would be. In these in our forecasts, we have these rates, what I call key rates that have to be present is a transfer rate the percentage of the sellers customer base, who will continue to patronize the firm after the equity transfer is an attrition rate, the rate at which transferred customers will be lost. And recall that the buyer should only pay a commission on customers that remain and only as long as they remain customers. This is discretionary earnings per customer per year. Recall again that the commission rates must be set to ensure that that buyer has sufficient net return to justify assuming the burdens of servicing the customer base. And all of these variables are subject to variation and uncertainty. Now we have two tools available to

tackle variation and uncertainty calibrated estimates computer simulations.

45:06

Inc. When we look at calibrated estimates, we're looking at a technique where we acknowledge that we never know any, with any certainty precisely the values of key variants, but we almost always know with much greater certainty the upper and lower limits of add variable. For example, the transfer rate on motions will almost certainly be greater than 50%, but not more than 95%. In the calibrated estimate method, subject matter experts are asked to set values such that they are 90% confident that the true value falls within the upper and lower bound and who are the subject matter experts except experienced employees, managers and owners are generally the individuals we want to provide the estimates for these kinds of rates. Now, it should be pointed out that credential appraisers are not necessarily subject matter experts CPAs may have some knowledge of certain types of businesses they might not. But that skill set of being a CPA does not necessarily mean that they are expert enough to provide the kind of estimates that we need when we appraise closely held firms. The next tool that I think is critical in appraisal practice that has to be added to our appraisal practice to make the our ultimate appraisals meaningful and fair, is computer simulation, calibrated estimates are only a starting point. To make appraisals useful. We need a statistical technique to refine the values of key forecasts variables that also directly measure the impact of significant risks and normal variations on future discretionary earnings. In a computer simulation, hundreds of alternative future revenue and discretionary earnings pass can be forecast in seconds. The basic steps to develop a simulation forecast involve first, develop a coherent economic model of the of the subject company and its competitive environment that identifies the causal variables that drives future discretionary earnings. Second, identify key risks and embed those risks in the economic model. And finally, assign probability functions to key rates and risk variables. A problem probability function is a mathematical expression that describes the expected frequency of certain future events. These, these these functions are best understood by the shape of their graphs and two very familiar distributions are the normal and Bernoulli. This functions normal distribution on the on the left is a bell curve, I'm sure you've all seen it. A Bernoulli distribution is a discrete event technique, and is widely used for situations where either something happens or it doesn't happen. Computers, computer simulations is in many ways similar to spinning a drum a lot, having a lottery drawing with it with a spinning drum with identically shaped ping pong balls, each with a number on it, you've seen these kinds of things when you look at the lotteries they have on TV. Now the numbering scheme in a simulation depends on the shape of the of the probability distribution shown. For example, let's assume we wanted to simulate the height of males, we would number the ping pong balls between 36 inches and 90 inches with basically the lowest possible height and the maximum possible height of any human male. Since the heights follow a normal distribution very few balls of the ping pong balls would be labeled near the extreme values and many more would be near the mean value of 70 inches. In a computer simulation, every key variable is subject to variation and risk can be

assigned its own virtual ram of appropriately number of ping pong balls. Each simulation run represents a future path for the discretionary earnings of the investment. Using lottery like simulations based on probability distributions that mirror the variations in risks buyers will encounter serves as a means of accurately forecasting the possible different levels of discretion and earnings from the investment in the closely held firm. When computer simulation calculates hundreds of possible future levels of discretionary earnings, certain levels will occur more frequently than others. Those levels of discretionary earnings that occur most often are likely to be realized and those levels that occur less frequently, given a coherent model of discretionary earnings and well chosen probability functions that mirror the risk of variation that an investor is likely to encounter. The mean or median of the outcomes is a good basis for negotiating equity prices. This these main are median levels of discretionary dis discretion is do not have to be further discounted for risk because the risk is already accounted for in the selection of the probability functions. simulation software is now widely available that integrates with Excel spreadsheets so each variable that drives discretionary earnings is included in the separate Excel cell. Some cells contain probability function, while others contain fixed constants, usually placeholders for averages.

50:30

Let me do a case study showing how my methodology works from top to bottom. This is an actual business that I'm going to be talking about. We have as the subject company a male only barbershop operated and owned by EA a 31 year old Hispanic male who has been cutting hair since he was a teenager. He operates a nine chair shop located in suburban Broward County, Florida. He has about 175 repeat customers that he personally serves. He has been operating at this current location for two years, he has entered into a revenue and trade name sharing revenue with a local barber who has financed the startup costs of his current shop in return for a percentage of chair rental revenue. The revenue that he derives from cutting his customers hairs personally is excluded from the chair revenue cost sharing agreement. Now appraising the value of his equity in his customer base independently from this cost sharing arrangement is what we're going to do, we're not going to take that cost sharing arrangement into account any potential acquirer, any buyer will not be assuming ease role in operating the cheer leasing operation. So the first step in the appraisal process is to analyze the customer base, we've talked about customer bases over and over again, we not drill down to the details of what customer bases actually look like. In order to really assess the value of the customer base. And this is the course the value of goodwill, we really have to understand who the customers are, what they earn, how many they are, how often they patronize the firm. So in this particular case study, you can see that we have tables that analyze the age distribution of the customer base, the number of years they've been using ease barbering services, we've looked at the avenue revenue, the average revenue per patronization, we've looked at the gross revenue per customer. And then we've looked at the total annual revenue to derive an approximate gross value of the kind of revenue that a new buyer

might expect to obtain from that customer base. any potential acquire in the PA stands for potential acquire, but I've been using the term buyer, any buyer will have to have the skill, cultural and age compatibility. And in order to service and of course, the time to service his customer base. Promoting from within might not work if such a barber has a fairly big customer base of their own, they will not be able to serve as ease clients ease customers and their own existing customers as well. Only a barber with a small base of customers would be in the best position to take advantage of ease customer base. Such a barber would likely either be inexperienced or completely new to the area and inexperienced or may lack the financial resources to acquire the customer base or lack the depth of experience to to adequately manage it. an optimal buyer here would be an experienced barber with some financial sources who is low relocating into the area. And I believe that if I'm looking at you know brokering this, you know, his customer base, I believe that that is exactly the target that is the optimal buyer. Now, the total adjusted discretionary earnings that he now realizes on his customer base is $91,200. on a per customer basis, that's about $525 in discretionary earnings per year. This will of course be subject to variation depending upon how close the buyer can maintain the total customer base at a full capacity assume to be 175 customers. Now he estimates that the rate of referrals from existing customers to be between 30 and 40 per year. This will translate to a referral rate of between 15 and 20%. He also estimates that he loses no more than between five and 10 existing customers per year. This trend translates to an attrition rate of between 2.5 and 5%.

54:55

So the summary of the key forecast parameters and the associated press ability to switch for the forecast of the maximum competitive advantage is shown in this in this table below. Note there is no identified major uninsured risk included because none exists for this location and service center. So when you look at this table, we're saying, okay, the maximum number of customers available, that's a constant, we know that he has 175. So that's the total base low, expected and high. The transfer rate we're assuming, is somewhere between 60 and 80%, with an expected amount of 75%, the PDF that's the probability distribution function, we're using a special type of function, it's not the normal, it's not the Bernoulli. It's a different type of function called the triangular function to estimate in our simulation runs where that transfer rate is going to fall. Second year attrition, which is very important, because the idea in these, these these transfers is that the customers, the clients, the patients are going to try the new owner. But there's a fairly big risk that they're not going to be happy after the first trial. So second year attrition is in effect, a critical juncture for many of these transfers, and the attrition rate is likely to be significantly higher in the second year than it is subsequent in subsequent subsequent years. So again, that's subject in our simulations in our forecasts or simulation forecasts, we're going to use triangular distribution, and we're going to assume that a low would be a 5% attrition rate and expected attrition rate of 8% and a high of 15%. Now, if we are the assuming that this optimal buyer buys, the discretionary buys the practice that discretion and earnings per year per customer, for the

new buyer is again assumed to range between 490 and 540. And similarly, we have normal attrition rate, we have potential new customers per year, and we have a compete option, the discretionary earnings per customer. In the case that a new buyer, instead of buying the practice buying the shop would choose to compete. These are the model assumptions that we build in to our forecasts. Now, our first run shows a calculation forecast of the maximum competitive advantage the most that we would expect the 175 customer base to generate to a new buyer. And based on 1000 runs, we see that the minimum amount would be about 540,000, the maximum amount would be 777 765,000. The mean about 674,000. And the left is the table of the right is the the distribution graph. Now we have to do a computer by estimate as well. There's an ability of there's ability to acquire new customers fairly quickly. In this Broward County market. There's a lot of turnover. There's a lot of seasonal, in and out. So unlike more subtle communities, Broward County does afford barbers coming into the market to quickly obtain new customers. You'll recall from the previous slide that each shop was able to get 30 or 40 new customers a year just in a walk in basis. So when with this ability to acquire new customers quickly, one of the things that a new buyer would look at is what is what is the relative advantage of competing versus buying ECE practice. The optimal buyer could enter into a chair rental agreement and start from scratch and attain 175 customers in three to four years. And here is a comparative model for one possible path if the optimal buyer chooses to compete. And again, looking at this table, if they choose to compete, they don't start out with any but within 234 or five years, they can get up to 175 customers and this is the the number of new customers they acquire each year, the ending balance per year, the expected discretion and earnings per customer and the total discretionary earnings have an inflation adjustment built in. Now if on the other hand, they choose to buy

59:41

his book, this is what happens in the bottom and the difference. The difference between the compete or by is in effect the computer by are the upper bound value calculated on the assumption that the alternative is to compete Now, these are the results of a simulation based on that model 1000 run simulation and that the main upper bound value on the computer by is 100 and roughly 102,000. Now, the value of the benefit of buying versus competing as I said is about $100,000. This is not the likely bid because this reflects the competitive advantage before considering the cost of the equity. We must also consider that the optimal buyer has another alternative to which is to work as a salaried employee for chain barber. Based on BLS survey data assume as an employee as an employee optimal buyer that they can command a salary of $45,000 per year working for a chain shop soom that the buyer is willing to wait five years to attain the level of discretionary earnings he now earns, because the optimal buyer will not be assumed to take over management of the other barbers use an $80,000 figure for the targeted DEA rather than the 99,000 He currently earns over five years, this would translate to an increase salary of $35,000 total or an increase of $7,000 per year. Here is one possible scenario for the differential compensation. And again, start with a number of customers you have the the rate, the

total discretion and earnings, and then you have the salary requirement. Similar to the example I had on landscape slide a few minutes ago. Now here using a buyout of based on this, this differential compensation analysis is that a reasonable amount that the buyer would be willing to pay would be in that $70,000 range. And here again on the simulations with a mean of about $68,000. So based on the simulation runs, the optimal buyer should be willing to acquire ees customer base for between 60,070 $5,000 such a buyer price is less than the competitor buy, and still allows the buyers to attain the level of discretion in earnings currently on buy realized by IE within a three to four year period. Buy terms could we probably call for annual payments of between 20 and $25,000 for three years. Now, it would be useful to compare what my simulation based fairness based model comes up with, with the more traditional methods that are now in use. So let's first of all compare are, you know 60 to $75,000 value for the equity with a rule of thumb, the business Reference Guide, which is the primary source for rules of thumb stipulates a rule of thumb of between 10 to 25% of sellers discretionary earnings plus 15 $100, a chair and inventory using $80,000 he is discretionary owners, this would lead to an appraised value of between 10 and 22,000. Now suppose instead, we use one of the expert appraisers techniques, the income method of valuation that we talked about in the first part of this course, utilizing an income approach, we will first convert, ie his discretion in learning to free cash flow and that would be the difference between ease discretionary earnings and what a buyer could earn as an employee using $45,000 or $45,000 compensation for you would leave $35,000 in free cash flow. If an appraiser chose a risk adjusted discount rate of between 10% and 15%, and a growth rate of 2%. This will entail a net capitalization rate of between eight and 13%. This would lead to appraised values of between 270 and $438,000. Using a discount for lack of marketability is somewhere in the range of 25%, leading to a final appraised value of between 203 $128,000 completely, of course absurd numbers. Both the role and the farm rule of thumb and the income method fail because they attempt to answer the most fundamental appraisal questions. My approach starts with the simple notion that as a subject company with enterprise Google has value only if there's a buyer who has the motivation and capacity to replace the retiring owner. Such a buyer must compare acquiring the subject company versus their next best alternative. If the buyer is a competitor, the next best option is competing for customers. If the buyer is an employee, if the optimal buyers an employee, the next best option is staying an employee. The final step involves determining the reference level discretionary earnings the buyer will deem to be a fair reward for assuming the responsibilities of servicing the subject company. My method assumes that the that the potential buyer will defer reaching this discretionary earnings target for no more than three to five years. The present value of the difference between the expected discretionary earnings and the required additional compensation for the buyer during this short period yields the range of an equity bit in my method variation and risk is built into the simulation models. So not there is no need for a risk adjusted discount rate.

1:05:42

So, to summarize the entire course, we want to say that the the essence of goodwill is a transferable customer base. We want to also say that the value of Google depends on the future earnings from that customer base. We want to say that negotiated goodwill equal to a negotiated fair commission rate. Want to note that the seller and buyer have different and competing ideas of fairness. and the value ultimately depends on the value of that equity interest is ultimately going to depend on the competence and the motivation of the buyer and their ability to extract discretionary earnings from that customer base. One say that my method assumes there is always an optimal buyer. That optimal buyer can always estimate a rational upper bound value. And the optimal buyer will generally use reference levels for fair earnings in setting that value in negotiating a fair commission rate and thus, an equity price. My method, I believe, offers a far more fair and equitable and reasonable economically reasonable approach to valuing equity in closely held service businesses. Thank you.