LAWRENCE G. RUPPERT and THOMAS A. LARSON, on behalf
of themselves and others similarly situated,

# OPINION AND ORDER 

> Plaintiffs, 08-cv-127-bbc
v.

## ALLIANT ENERGY CASH BALANCE PENSION PLAN,

## Defendant.

Plaintiffs Lawrence G. Ruppert and Thomas A. Larson and other former employees of Alliant Energy Corporation seek a declaration that defendant Alliant Energy Cash Balance Pension Plan failed to pay them the full amount of the lump sum benefits to which they were entitled when they left their employment. In addition, they ask for an award equal to the unpaid portion of their benefits, plus prejudgment interest and attorney fees.

In an earlier order I determined that plaintiffs' benefits were not calculated correctly, with the result that plaintiffs were not treated as favorably as those employees who stayed until retirement. This violated the Internal Revenue Service code and Employee Retirement

Income Security Act (ERISA), both of which forbid pension plans like defendant from "backloading" their plans with provisions that discriminate against employees who leave early in favor of employees who stay. 26 U.S.C. §§ 411 (a), (b)(1); 29 U.S.C. § 1054 (c)(3).

The defendant plan is a cash balance plan under which each participant has a "notional account" representing an annual employer contribution of $5 \%$ of the employee's salary and interest on the account balance, which, under defendant's plan, was the greater of $4 \%$ of the account balance or $75 \%$ of the actual rate of earnings of the plan's trust fund. Until an employee chooses to take his benefits, the account and the interest credits are hypothetical only.

During the years at issue in this suit, defendant allowed employees leaving employment before the normal retirement age to request lump sum benefits payments equal to their accounts, projected to future value and reduced by present value. In making its projections, defendant used the 30-year Treasury rate for both future value and present value, so that when the two calculations were complete, the lump sum benefit was exactly the amount of the account balance. Under the law in effect at the time, defendant should have been using its own specified rate for calculating future value and applying the 30-year Treasury rate to discount the future value to present value. As a general rule, the Treasury rates that defendant used for its calculations were lower than the interest crediting rate defendant was applying to the account balances, but not using to calculate future value.

After I determined on summary judgment that defendant's benefit calculations were wrong, it was necessary to decide the damages that plaintiffs had incurred from defendant's use of the wrong interest crediting rate for calculating the future value of their accrued benefits. Because the defendant plan prescribed a variable interest rate, it was not possible simply to redo the previous calculations with a known rate. Instead, it was necessary to decide how that rate would be determined and to do so in the absence of any direction on this issue from any appellate courts.

Defendant took the position that it was not necessary to hold a trial on the question. Instead, it argued, the plan administrator should be given an opportunity to determine a method for calculating a fair interest crediting rate. I rejected this argument on the ground that the determination of the interest crediting rate was not one within the discretion enjoyed by plan administrators in these circumstances, June 3, 2010 order, dkt. \#316, at 5355 , and the case proceeded to trial.

The parties adduced evidence in support of several methods of calculating an interest crediting rate that would comply with IRS rules and reflect the amounts plaintiffs should have been credited. Plaintiffs relied on a calculation of the interest crediting rate using a stochastic modeling method proposed by their expert; defendant proposed a forecasting method based on the Black-Scholes option pricing model. Defendant also proposed the use of a five-year rolling average, that is, applying to each lump sum benefit the average of the
interest crediting rate in effect for the year in which the participant took her benefit and the preceding four years.

Plaintiffs argued that the court should adopt the method that appeared to best reflect the value of anticipated future interest credits, saying that its task was to determine an interest crediting rate that had a low risk of undervaluing the future interest crediting rate. Defendant framed the question as requiring the court to determine the legal standard that governed the interpretation of an appropriate interest crediting rate under ERISA.

In my view, the issue was to find the interest crediting rate that reasonable persons in the position of the plan drafters would have chosen to fairly reflect the value of the plan's retirement benefit. In determining what this rate would have been, I made certain assumptions: the persons would have had available to them the information adduced at trial about the various ways in which a fair projection could be determined; their knowledge about actual economic conditions or the financial markets was limited to what was known in 1997; and they would have known they had a duty to comply with the rules and regulations of ERISA and the Internal Revenue Code and their fiduciary obligations to all the plan participants.

Having heard the evidence and reviewed the record, I conclude now that reasonable persons would have found the appropriate rate to be $8.2 \%$ in light of the testimony of plaintiffs' parties' expert witnesses, Clark Maxam, and defendant's expert, Vincent Warther.

Maxam advocated a rate of $8.45 \%$; Warther advanced a rate of $7.63 \%$. Given the inherent lack of certainty about either approach, I believe that the persons responsible for the plan would have been reluctant to assume the accuracy of the higher rate but would have been concerned about aspects of Warther's proposal that seemed to underestimate future volatility. Faced with this uncertainty, they would have chosen a rate within the two projections, biased toward Maxam's projection, which was the more persuasive of the two.

A rate of $8.2 \%$ is consistent with what Alliant Energy's advisers were projecting at the time. More important, it reasonably reflects the unusual wealth preservation feature of the plan, which provided every participant a rate of $75 \%$ of the actual rate of earnings of the fund's assets but never less than $4 \%$ of the participant's account balance.

The parties also dispute the application of a pre-retirement mortality rate in determining the present value of a participant's accrued benefit. I conclude that defendant may not apply such a rate because it has not shown that doing so would be consistent with the holding in Berger v. Xerox Corporation Retirement Income Guarantee Plan, 338 F.3d 755 (7th Cir. 2003).

From the evidence adduced at trial and the facts stipulated by the parties, I find the following facts.

## FACTS

## A. The Plan

## 1. Background

Defendant Alliant Energy Cash Balance Pension Plan was formed in 1998 as part of the merger of three Wisconsin and Iowa energies companies (Wisconsin Power \& Light, IES Industries, Inc. and Interstate Power Company). (Although the parties never clarified this point, it appears that the new corporation known as Alliant Energy Corporation is now the holding company of the two remaining energy companies, Wisconsin Power \& Light and Interstate Power Company.) Alliant Energy Corporate Services, Inc. provides support services to the holding company and has been the sponsor of defendant Alliant Energy Cash Balance Pension Plan since its creation. Throughout the relevant period, January 1, 1998August 17, 2006, the plan was an employee pension benefit plan and a defined benefit plan under the Employee Retirement Income Security Act, 29 U.S.C. § 1002(2)(A) (35), that incorporated cash balance features.

The cash balances do not exist except as a means of determining a participant's benefit. Each plaintiff's notional cash balance account included an opening balance as of January 1, 1998 or the day on which that plaintiff became a participant. For continuing employees, the opening balances were based upon benefits accrued as of that date; for new
participants, the balances were established beginning with the first hour of service earned. Trial exh. \#323, Alliant Energy Cash Balance Pension Plan, at § 3.3.

The cash balance account increased with the addition of "benefit credits" in an amount equal to $5 \%$ of the participant's pay as of December 31 of each year and with the addition of annual "interest credits," which were defined as the greater of either $4 \%$ or $75 \%$ of actual earnings of the trust fund for the plan year. In other words, in no year would the interest crediting rate be less than $4 \%$, however badly the markets fared. This unusual interest crediting rate was recommended by the actuarial firm, Towers Perrin (now Towers Watson Pennsylvania, Inc.), that worked with Alliant to design the plan and served as its enrolled actuary from its beginning. (Among the more unusual features of the rate is that it had the inevitable effect of outperforming the trust's earnings over time because the plan participants were protected from any market losses by the guaranteed $4 \%$ floor, but the trust was not.)

## 2. Relevant plan provisions

Under the plan, dkt. \#232-2, "accrued benefit" is defined in § 1.2(a) as
The monthly amount of retirement income which would be payable in the form of a Single Life Annuity beginning on a Participant's Normal Retirement Date, which is equal to the greater of (1) the Actuarial Equivalent of the Participant's Cash Balance Account, if any, or (2) the Participant's Grandfather Benefit, if any. For purposes of determining a Participant's

Accrued Benefit as of any given date, (1) the Participant's Cash Balance Account, valued as of such given date, shall be credited with a pro rata portion of the current Plan Year's Benefit Credit and Interest Credit if the valuation date is not the last day of the Plan Year, and future interest from such given date to the Participant's Normal Retirement Date, and (2) the actual equivalency factors described in section $1.2(\mathrm{~b})(1)$ shall be applied.

Section 1.2 (b) defines Actuarial Equivalent for conversion to a single lump sum purposes as
A single lump sum benefit having the same actuarial present value as a Participant's Accrued Benefit compiled using the (A) 1983 Group Annuity Mortality Table (or such other mortality assumptions as required under Code section $415(\mathrm{~b})(2)(\mathrm{E})(\mathrm{v}))$ and (B) the annual interest rate on 30-year Treasury securities as specified by the Internal Revenue Service in accordance with the rules of Code section 417(e) for the month of October . . . preceding the first day of the Plan Year during which occurs the Annuity Starting Date.

Participants who remain actively employed until their normal retirement age of 65, Plan, § 1.2(t), are entitled to receive a nonforfeitable benefit calculated as a single life annuity equal to the greater of the actuarial equivalent of their cash balance account or their grandparent benefit. Id., § 3.1. (The grandparent benefit is the amount of the benefit the participant accrued in a benefit plan operated by one of the companies that merged into Alliant. Id., § 1.20.) A participant who leaves earlier than her normal retirement age is entitled to receive the same benefit, that is, the actuarial equivalent of her nonforfeitable cash balance account beginning on her annuity starting date. Id.,§ 3.2 (b). Alternatively, a participant may elect to defer payment of her vested retirement benefit to "any Annuity Starting Date" after the termination of her employment. $\underline{\text { Id }}$., § 3.2.

A participant who does not request one of the optional forms of benefits available under § 4.4 of the plan and who is married on her annuity starting date will receive a qualified joint and survivor annuity equal to the actuarial equivalent of a single life annuity payable to the participant. This is an immediate reduced monthly annuity payable for the life of the participant, with payments continuing to the surviving spouse in an amount equal to $50 \%$ of the amount payable to the participant. All benefits cease upon the death of the surviving spouse. Id., § $4.3(\mathrm{~b})$. A participant who is not married on her annuity starting date will receive payment in the form of a single life annuity. (She also has an option of a reduced annuity with a lump sum payment to a designated non-spouse beneficiary. Id., § 5.1 (b).)

Participants may elect to receive their benefit in another form, such as an immediate lump sum that is the present value of the single life annuity, $\underline{\text { id }}$. § 4.4(a)(1), as well as other options not relevant to this opinion. Participants who terminate their employment before their normal retirement age have a choice of an immediate lump sum, a single life annuity or a joint and $50 \%$ survivor annuity, with "survivor" including any designated beneficiary. Id., § $4.4(\mathrm{~b})(\mathrm{l})-(3)$. They may elect to receive their benefit payment at any time before their normal retirement date. Id., § 4.1.

The plan provides retirement death benefits to a surviving spouse of a participant who dies before benefits become payable. The death benefits are equal to the "Actuarial

Equivalent present value of the Participant's Cash Balance Account payable in a Single Life Annuity." Id., § 5.1. The spouse may elect to receive payment in an immediate lump sum equal to the participant's cash balance account and may elect to delay payment of the benefit. Id. A non-spouse beneficiary of a participant who dies before benefits become payable "shall receive in a lump sum the Participant's Cash Balance Account as soon as administratively feasible following the Participant's death" and shall have no right to defer payment of any benefits from the plan. Id., § $5.1(\mathrm{~b})$.

## 3. The plan's operation

Defendant plan is intended to be a "frontloaded" interest credit plan, which means that participants are not required to continue working to receive interest credits on their accounts until normal retirement age. Dkt. \#232-2, §§ 2.4, 3.5(b), 4.1. During the relevant time, the plan provided that participants who requested single lump sum payments before their normal retirement age were entitled to payments equal to the present value of the "accrued benefit."

As noted, defendant's use of a variable rate ( $4 \%$ or $75 \%$ of the actual rate of earnings) meant that it had no set interest rate on which it could rely to determine the actuarial equivalent of a cash balance account. The plan drafters and their adviser, Towers Perrin, believed that the plan could use the 30-year Treasury rate as a fair estimation of the variable
rate. Acting on Towers Perrin's advice, the plan's drafters provided that the determination of the actuarial equivalent of the benefit would begin with the cash balance account, to which future interest would be applied at the interest rate described in the plan, which was to be the "annual interest rate on 30-year Treasury securities as specified by the [IRS] in accordance with [26 U.S.C. § 417 (d)] for the month of October . . . preceding the first day of the Plan Year " during which a participant receives a lump sum payment from the Plan." Id., § $1.2(\mathrm{~b})$. By law, the plan was required to use the 30 -year Treasury rate as the discount rate applied to determine the present value of the cash balance account.

This calculation up to future value and back to present value is referred to as a "whipsaw" calculation. The two actuarial experts called by the parties, Thomas Lowman for plaintiffs and Ian Altman, defendant's expert, agreed that the usual calculation proceeds as follows: First, the account balance is projected forward to age 65, the age of normal retirement, with credits added for current and future interest. Second, to this projected cash balance account are applied actuarially equivalent factors, including post-retirement mortality rates, and interest to determine the value of the account at the time of retirement. This is the "accrued benefit." Third, the accrued benefit is converted to an actuarially equivalent single lump sum by using both the applicable mortality tables and the applicable interest rate. Lowman, Tr. trans., dkt. \#339, at 84-85; Altman, Tr. trans., dkt. \# 353, at 17-18.

For the defendant plan, the use of the Treasury rate to calculate both the actuarial equivalent and the present value of that sum meant that the lump sum benefit always equaled the notional account balance (unless the present value of any participant's grandparent benefit was determined to be greater than the notional account balance).

After August 17, 2006, the effective date of the Pension Protection Act of 2006, Pub. L. No. 109-280, 120 Stat. 780 (2006), defined benefit plans such as defendant were no longer required to use the whipsaw calculation. The new rules provided that defined benefit plans would not be treated as failing to meet the requirements of ERISA solely because the plan deemed the present value of an accrued benefit to be equal to the participant's notional account. For this reason, plaintiffs' request for damages is limited to the period from the start of the plan on January 1, 1998 through August 17, 2006.

Since January l, 1998, the plan's interest crediting rate would have yielded the following annual returns for each year through 2009:

| Year | Interest Crediting Rate | Trust Fund's <br> Actual <br> Rate Earnings | 30 -year Treasury <br> Rate |
| :---: | :---: | :---: | :---: |
| 1998 | $8.100 \%$ | --- | $6.33 \%$ |
| 1999 | $7.125 \%$ | $9.50 \%$ | $5.01 \%$ |
| 2000 | $4.000 \%$ | $4.80 \%$ | $6.26 \%$ |
| 2001 | $4.000 \%$ | $0.60 \%$ | $5.80 \%$ |


| 2002 | $4.000 \%$ | $-8.60 \%$ | $5.32 \%$ |
| :---: | :---: | :---: | :---: |
| 2003 | $16.950 \%$ | $22.60 \%$ | $4.93 \%$ |
| 2004 | $8.250 \%$ | $11.00 \%$ | $5.16 \%$ |
| 2005 | $4.000 \%$ | $4.90 \%$ | $4.86 \%$ |
| 2006 | $9.600 \%$ | $12.80 \%$ | $4.68 \%$ |
| 2007 | $5.475 \%$ | $7.30 \%$ | $4.85 \%$ |
| 2008 | $4.000 \%$ | $-29.2 \%$ | $4.77 \%$ |
| 2009 | $17.325 \%$ under original terms; | $23.1 \%$ | $4.17 \%$ |
|  | $6.650 \%$ under 2009 amendment |  |  |

On December 30, 2009, the plan was amended retroactively, effective January l, 2009, to change the interest crediting formula to equal the annual change in the Consumer Price Index plus 300 basis points.

## B. Plaintiffs

Plaintiffs Lawrence G. Ruppert and Thomas A. Larson and the members of the two classes they represent are former employees of Alliant or one of its predecessors or affiliates and former participants in the defendant plan. Each left employment with Alliant Energy before August 17, 2006 and received a lump sum payment in an amount that he understood was equal to his notional account balance. Defendant calculated the amount by applying an
interest crediting rate equal to the 30-year Treasury rate to determine the future value of the account and then applied the same rate to determine the account's present value.

## C. IRS Notice 96-8

In 1996, the Internal Revenue Service issued a notice, inviting comments on its proposed guidance on the treatment of single sum distributions under 35 U.S.C. §§ 411 and 417(e) to plans like defendant, that is, defined benefit pension plans that are cash balance plans. The notice contained a warning that a cash balance plan might violate 26 U.S.C. § 417(3) or 26 U.S.C. § $411(\mathrm{a})$ if it provided interest credits higher than the § $417(\mathrm{e})$ applicable interest rate but paid a single sum distribution equal only to the hypothetical account balance. IRS Notice 96-8, § III(B). The IRS advised plans that § 1.401 (a)(4)-8(c) of the income tax regulations provided a safe harbor for cash balance plans that satisfied certain design requirements. Id., § $\mathrm{II}(\mathrm{B})$. Defendant never adopted the safe harbor requirements.

## D. The Parties' Proposed Methods of Projecting Future Value

1. Stochastic modeling

Plaintiffs' expert, Clark Maxam, employed stochastic modeling to determine what plaintiffs believe is the correct interest crediting rate for the court to apply. Stochastic
modeling is a means of estimating probability distributions of potential outcomes by generating simulations that reflect random variations in one or more inputs over time. It is intended to produce a representation of real-life scenarios by building in volatility and variability. It is particularly useful when the path of future returns is important or when option-like payoffs are present in the return structure, as they are in this case. By contrast, deterministic models develop one path for the future based on a single set of economic experience assumptions and do not consider the possibility of variation in future returns.

Maxam is a professor of finance at Idaho State University. He has a Ph.D. from Indiana University and has experience working as a proprietary trader in arbitrage at the Chicago Board of Trade and as a trader in the fixed income markets for a private firm, where he learned computer modeling.

In constructing his own model for the trial, Maxam started with the Society of Actuaries model as his base. After he found that corporate bonds were important components of defendant's trust fund, he added to his model the capability to model international stocks and the broad bond market, including corporate bonds. Although the developers of the Society's stochastic model had used long term historical data going back to 1871 , Maxam used the society's data set of "Ibbotson data" on large and small cap stocks going back to 1926. (Ibbotson data began with Roger Ibbotson, who took pure price data on stocks, starting in 1926, and made the data into total return data, including dividends,
stock splits, etc.) He did not use any 1871-1926 data for his analyses, believing that the older stock information tends to be shown in monthly averages that dampen volatility, making it difficult to compare to the later Ibbotson data.

When Maxam constructed his own model, he made an effort to use only data that would have been available to a person using the model in 1997, the year in which the plan's drafters chose the plan's interest crediting rate. He included all of the Ibbotson data from 1926 forward, theorizing that omitting Great Depression information would give a misleading picture of volatility, whereas keeping it produced a better reflection of reality. In other words, using this information would reduce the chances that an investor would be "surprised" by the occurrence of unlikely events in the future.

Maxam assumed a target asset allocation by defendant of $65 \%$ equities, $30 \%$ bonds and $5 \%$ cash. He modified the model to reflect what he saw as the level of volatility that the plan would experience over its lifetime, which he assumed would be 45 years, as well as to capture the effect of the "option provision" in the plan. By option provision he meant that one could look at the plan as being a series of options. Each year, plan participants had a chance of adding to their accounts at least $4 \%$ of the earnings rate of the trust fund or $75 \%$ of the fund's earnings rate, an unpredictable amount. Hypothetically, a plan participant could "put" an option, that is, offer for purchase an option with a value premised on the likelihood of earning a return higher than $5.33 \%$ (the figure at which $75 \%$ of the rate would
exceed $4 \% ; 75 \%$ of $5.33=4$ ).
Knowing that volatility plays a role in calculating the fair value of an option equal to its current trading price, Maxam forecasted volatility for the "volatility inputs," using 40\% for the large cap stocks in the "low volatility regime," that is, the historical periods in which stock volatility was low overall, and $80 \%$ for small cap stocks during the same low volatility regimes. Keeping the depression data in the model and increasing the volatility for the large cap and small cap stocks during low volatility regimes resulted in a higher interest crediting rate.

In increasing the volatility of the large and small cap stocks in the low volatility regime, Maxam used annual volatilities (the standard deviation of yearly logarithmic returns), computed on a year to year basis, and then converted them to monthly volatilities (dividing the annual volatility by 12 ), as required by the model. Again, he did this because he viewed defendant's interest crediting rate as a one-year option paid out at the end of each year. In addition, he deemed it important when determining the value of a theoretical option to use a path in which the rate is determined on a point to point basis from the beginning of one year to the end of that year, just as one would want to know the highest and lowest prices of the underlying asset during that year. A person knowing only the price of the asset at the beginning of the year and at the end would not know much about the value of the option at various points during that year. For determining the high volatility
regimes of equities, that is, periods in which the prices of equities fluctuated significantly, Maxam used percentages for those periods that the Society of Actuaries had collected.

Maxam's model took "fat tails" into account, that is, the fact that equity returns have a strong tendency to experience more frequent and higher magnitude returns, both positive and negative, than a normal distribution would suggest. He input inflation data as of 1997, as well as yield curve data (the relation between the cost of borrowing and the time to maturity of the debt for a given borrower) and interest rates on Treasury bonds over three months to 30 years.

Once the model was constructed, Maxam ran it to determine a probable distribution of the estimated interest crediting rate at its average. He simulated a yearly path of returns out to year 45, tracing geometric returns for an array of possible combinations, all starting in 1998. (The results of analyses from a later starting point were not sufficiently different to warrant the additional runs.) After 5000 runs, he found that the median point of the estimates for the interest crediting rate was $10.73 \%$; at the $80 \%$ confidence level, the number was $8.45 \%$. ("Confidence level" is "the particular probability used in defining a confidence interval, representing the likelihood that the interval will contain the parameter." A "confidence interval" is a range of values so defined that there is a specified probability that the value of a parameter of a population lies within it." Oxford English Dictionary 2010.) Maxam found the $8.45 \%$ rate to be a fair representation of the value of the interest crediting
rate to a person leaving the plan before August 17, 2006.
Among other checks that he made, Maxam looked at two of the IES and WP\&L plans. For the period 1987-97, the IES plan had had fund returns of $9.65 \%$ and the WP\&L plan had had returns of $9.52 \%$. ( $75 \%$ of 9.65 is $7.23 ; 75 \%$ of $9.52 \%$ is 7.14.) Maxam noted that both the defendant plan's sponsor and its consultant, Towers Perrin, had run analyses intended to show the conditions under which plan participants would fare better or worse with the projected plan balance plan conversion. The projections used interest crediting rates ranging from $7 \%$ to $10 \%$, with most in the $8 \%-10 \%$ range. E.g., tr. exh. \#307, p. 4505 (projecting value of benefit with $5 \%$ benefit contribution and interest rates of $8 \%$ to $10 \%$ ); exh. \#309, p. 8678 (projecting interest rate growth of $10 \%$ ); tr. exh. \#312, p. 3668 (projecting interest crediting rate of $10 \%$ and comparing interest rate to that used by Interstate Power Company's plan (8\%) and Wisconsin Power \& Light's plan (9\%)); tr. exh. \#316, pp. 11577-79 (projecting "account balance interest rate growth" at 7\%,8\% and 9\%); tr. exh. \#319, p. 3623 (projecting interest crediting rate of $10 \%$ ); tr. exh. \#325, pp. 3399403 (projections of benefits for non-union employees, showing benefit levels of $7 \%$ and $9 \%$ ); tr. exh. \#334, p. 6835 (Mar. 1, 2001 report from Towers Perrin to plan, forecasting compound average crediting rate at $8.3 \%$ ). Documents from the drafting period show that the plan's sponsors expected an interest crediting rate between $8 \%$ to $9 \%$ and used this as a selling point for employee-adoption of the new plan in place of the predecessor plans. E.g.,
"Summary of Historical Investment Returns on Pension Plan Assets," tr. exh. \#5, p. 3750 (showing ten-year average for returns from predecessor plans over preceding ten years, ranging from $13.8 \%$ to $10.9 \%$ ); tr. exh. \#62, p. 9996 (letter to Towers Perrin from John Enbright, vice president of Alliant Energy, noting that "[p]rojected benefit comparisons of "grandparent" and cash balance plan benefits revealed that under reasonable assumptions, interest credits in the range of $8 \%$ to $9 \%$ (approximately $75 \%$ of the pension trust's expected rate of return) were required to match benefits for most plan participants"); Tr. Exh. \#76, pp. 11140-43 (projections of benefits for unionized employees, using interest crediting rate of $9 \%$ ).

Maxam also considered a historical estimate of the interest crediting rate based on the Ibbotson data from 1926 forward. He found that such an estimate would have produced an interest crediting rate of $10.65 \%$. These comparisons confirmed his confidence in the results of his stochastic modeling. He observed that if the defendant plan had been in existence for the entire period from 1926 to 2009, it would have had negative years every four years on average.

## 2. Black-Scholes option pricing model

Defendant's expert, Vincent Warther, analyzed the value of the interest crediting rate under the Black-Scholes model, characterizing it as a transparent, well accepted and
straightforward valuation method that can be used to value assets that are not traded. The Black-Scholes model was developed by Fischer Black and Myron Scholes and operates on three assumptions. The first is that asset prices adjust to prevent arbitrage, that is, to prevent people from taking advantage of market anomalies to make a riskless profit with no investment, such as purchasing in one market a good that can be sold immediately in another market for more money. The second assumption is that stock prices change continuously and the third is that stock returns follow a log-normal distribution, that is, the logarithm of the variable follows a normal distribution. Robert M. Kolb, Understanding Options, at 162 (1995). Warther acknowledged that he did not know of any pension plan that had been traded in the market, but pointed out that it is common to trade the kind of assets that make up the funds of such plans.

Warther is employed at Compass Lexecon, a firm that provides litigation assistance in economic matters. He has a Ph.D. in finance from the University of Chicago and has taught as an assistant professor at several colleges, including the University of Chicago School of Business.

Warther analyzed the interest crediting rate as a riskless bond paying 4\% interest each year plus a call option on the return generated by the plan's trust. He used five inputs for his analysis: (1) the volatility of the log of the returns; (2) the spot price (today's price); (3) the strike price (the price the option holder has to pay to exercise the option, that is, to
receive a payoff on the option or acquire the underlying asset; (4) time to maturity (the time to expiration of the option; and (5) the riskless rate (the rate of return on a riskless investment). The value of the call option for each dollar invested in the defendant plan at the beginning of the year is $75 \%$ of the value of a one-year call option, with a spot price of $\$ 1.00$ (for the purpose of the model) and a strike price of $\$ 1.0533$, reflecting the fact that the option is not "in the money," that is, it has not reached a price that has any value to the buyer of the option until the return to the plan participant is $5.533 \%$ (at which point $75 \%$ of the fund's rate of return begins to exceed 4\%). Warther assumed a time to maturity of one year (the time in which the parties would know the value of the option because the interest crediting rate is determined at year's end), and he used the 30-year LIBOR (the London Interbank Offered Rate) swap rate as the riskless rate. For the volatility input, he used $10.25 \%$ as the standard deviation of the $\log$ of the returns on the underlying assets or the volatility of the returns to the plan portfolio.

In determining volatility, Warther relied on a 1998 report in which Yanni Partners, one of defendant's consultants, had estimated the volatility of the plan going forward at $10.25 \%$. Warther checked the validity of Yanni's estimate by comparing it to the volatility of the actual plan over the period 2000 to the third quarter of 2006 , which Warther estimated to be $10.02 \%$, slightly lower than Yanni's 1998 estimate. Warther concluded from this that Yanni's estimate was consistent with the actual volatility over the relevant period.

He did not assign any value to fat tails because the Black-Scholes model assumes that the price of the underlying security is log-normally distributed. (A log-normal distribution is a probability distribution whose logarithm is normally distributed; logarithmic stock returns are continuously compounded returns.)

For the value of the hypothetical option, Warther used a starting point of $3.4 \%$ at the beginning of the year, increasing to $3.63 \%$ by year end. Adding this to the guaranteed "floor" of $4 \%$ in the plan produced an option value of $7.63 \%$, which is the value of the possibility that the buyer of the option would receive more than the cost of the option from the return on the trust fund at the end of the year. The value Warther assigned to the option was not equal to the value of the potential payoff but a lesser, riskless amount. He chose the riskless amount because he believes that investors will choose a certain payoff rather than a risky payoff. According to Warther, investors are not "willing to pay the average of possible payoffs because they would be giving up a certain fixed amount of money. . . . risky payoffs, with a given average return, are less valuable than a certain payoff with the same average." Tr. trans., dkt. \#347, at 47-48. In Warther's opinion, $7.63 \%$ was an accurate estimate of the interest crediting rate.

## 3. Criticism of proposed methods of calculation

Warther criticized Maxam for calculating the actuarial value of the interest crediting
rate because, in doing so, Maxam was taking the average payoff of the hypothetical series of options. The average payoff is a riskier rate than the $7.63 \%$ that Warther would use. Warther also took issue with Maxam's estimate of volatility, which Warther said was 13.7\%. Warther found this estimate overstated because it included the Great Depression, an unusually volatile period in economic history. Warther excluded the depression from his own analysis as well as the years 2007 and 2008, on the ground that including these two years would tend to inflate the numbers. In his opinion, the volatility in those two years would have been unexpected. He also included in his volatility analysis one of the prior plans that was invested entirely in bonds, which had the effect of lowering the volatility rate slightly.

Before developing his stochastic model, Maxam considered analyzing the interest crediting rate by assuming that an employee's chance of earning more than $4 \%$ on his notational cash account was an option that the market could price in the same way it prices an option to buy 10,000 shares of XYZ Corporation. He concluded that despite the optionlike features of the plan, it could not be priced as an option under the Black-Scholes option pricing model, for several reasons. First, the option pricing model is designed for assets, primarily equities, that trade in the marketplace in sufficient quantities that they can be bought and sold freely at a very low cost. By comparison, the right to participate in a pension plan is not a readily traded asset or the equivalent of one, so finding a buyer for such
an option would be difficult and costly. Second, nothing in the literature supports using Black-Scholes for projecting portfolio returns. Third, the Black-Scholes model rests on what Maxam calls questionable assumptions: a normal distribution of equity, no transaction costs and no taxes, as well as a risk-free world. In fact, options are highly risky. Fourth, it is error to assume that the cost of a one-year option can be carried forward far out in the future, with everything staying the same. As the period to expiration lengthens, uncertainties increase. Over an extended period of time, the buyer of an option has an ever greater opportunity to take advantage of increases in the value of the underlying asset. The seller of the option will take this into account when pricing his option.

In Maxam's view, the Black-Scholes model does not account for the unique value of the interest crediting rate in this case, which lies in the preservation of wealth feature that resides in the $4 \%$ floor. The effect can be seen in an example of the effect of market movement on participants in a plan without a $4 \%$ floor and those in a plan like the one at issue. Each starts with an account balance of $\$ 100,000$. In year 1 , market returns are a negative $15 \%$. The participant in the plan without the floor suffers a loss of $\$ 15,000$. The participant in the defendant plan adds $\$ 4,000$ (the $4 \%$ floor) to his plan. In year 2 , the market is up $15 \%$. The participant in the non-floor plan adds $15 \%$ to his account balance, but because his balance had declined to $\$ 85,000$ in the preceding year, the $15 \%$ increase amounts to only $\$ 12,750$, giving him a new balance of $\$ 97,750$. The participant in the
defendant plan does not get the full benefit of the $15 \%$ upswing in the market, because he is limited to $75 \%$, which translates to a rate of $11.25 \%$ and an increase of $\$ 11,700$, but his new account balance is $\$ 114,700$, so he is ahead by $\$ 17,950$. If the market returned $8 \%$ in each succeeding year, it would take the participant in the plan without the $4 \%$ floor eight years to make up the difference between the two participants.

## E. Defendant's Experience with Stochastic Modeling

On at least one occasion, Towers Perrin performed stochastic modeling on the defendant plan to project future interest crediting rates. In 2001, Towers Perrin performed stochastic modeling as part of an overall study designed to project plan assets and liabilities to insure that the plan was meeting various objectives. Towers Perrin forecasted a compound mean interest crediting rate of $8.23 \%$ over a 15 -year period. It presented this result to the plan and informed it that the "minimum crediting rate [is] an expensive option granted to participants" and that the "value of the minimum [interest rate] is very sensitive to anticipated portfolio return." Tr. exh. \#334, p. 6835. Towers Perrin confirmed the expected interest crediting rate of $8.23 \%$ in a separate illustration showing how a participant's projected account balance would fare under the plan's asset allocation as compared to a different asset allocation. Tr. exh. \#335, p. 6879.

Towers Perrin's stochastic modeling showed that the forecasted long-term mean
interest crediting rate exceeded the underlying forecasted long-term mean trust returns of the plan by $0.52 \%$ on average each year. The forecasted mean interest crediting rate was $8.23 \%$; the projected mean trust return was $7.71 \%$. This modeling showed that over time the value of the $4 \%$ floor exceeded the value of the $25 \%$ of annual trust returns that was not reflected in the interest crediting rate formula (the greater of $4 \%$ or $75 \%$ of actual trust returns). Tower Perrins did not recommend revising the plan's assumptions to reflect the projected interest credit in the modeling, although it did recommend "changing the assumed return on plan assets and other assumptions to minimize forecasted gains and losses." Tr. exh. \#335, p. 6895.

In its 2001 modeling, Towers Perrin did not reflect the fat tail property of equity returns. Had it done so, the projected interest crediting rate would have been higher. It added this property to its modeling tool in 2004.

In 2007, defendant retained Watson Wyatt (now Towers Watson Delaware Inc.) to perform an investment strategy consulting project that included stochastic modeling. Watson Wyatt's model involved 5000 simulations to project the interest crediting rate 25 years into the future. The firm concluded that the forecasted long-term median interest crediting rate of $8.3 \%$ would exceed the forecasted long-term median plan trust returns of $7.70 \%$ over time by $0.60 \%$ on average each year. Watson Wyatt based its volatility assumption on more than 100 years of data going back to 1900. It assumed that the plan's
current asset allocation would remain constant and it took into account the fat tail property of equity distributions.

Watson Wyatt advised defendant that it might have to assume a future interest crediting rate of $8 \%$ under the directive of the Internal Revenue Service's Notice $96-8$ that plans had to use the rate specified by the plan to determine the future value of the hypothetical account balance.

## F. Other Evidence

At the plan's outset, its actuary assumed an average rate of return on plan assets of $8.5 \%$, with an interest crediting rate of $6.375 \%$. In the opinion of plaintiffs' witness, Lawrence Deutsch, an enrolled actuary under ERISA, this assumption did not reflect the value of the $4 \%$ floor provided by the plan. Over time, defendant's Schedule B to IRS Form 5550 showed an expected return of $8.50 \%$ on trust assets, but increased the interest crediting rate from the $75 \%$ figure of $6.375 \%$ to $7.00 \%$, indicating defendant's understanding that the plan's floor had independent value.

In a Schedule Q to IRS Form 5550, filed for calendar year 1998 and seeking a determination that it satisfied the general tests for non-discrimination among different classes of employees, defendant reported an interest crediting rate of 7.5\%. Tr. exh. \#77, at 8217 .

## OPINION

## A. Framing the Question for Decision

At the outset of trial, plaintiffs took the position that the court's inquiry should be aimed at finding the calculation that has a low risk of understating the future interest credits owed to them or, in other words, determining a calculation that best reflects the value of defendant's interest crediting rate. Although the law on this point is sparse, I am not persuaded that the approach must be so carefully calibrated. Nothing in ERISA or the Internal Revenue Code requires exact calculations of estimated pension benefits, as shown by the description of safe harbor plans in Notice 96-8, § III (B)(3) (setting out variety of proposed variable interest rates that may be assumed to be no greater than 30-year Treasury rate); see also Berger v. Xerox Corporation Retirement Income Guarantee Plan, 338 F.3d 755, 761 (7th Cir. 2003) ("if the employee prefers [the lump sum equivalent of his pension], that equivalent has to include a fair estimate of [the future interest credits]") (emphasis added).

Plaintiffs are entitled to a rate that fairly reflects what they should have been credited, but no more. The interest credits that will be applied to plaintiffs' lump sum benefits are a windfall available only to plaintiffs, not to any other participants in the plan, and available only for the period in which the Internal Revenue Service required the whipsaw calculation. Moreover, payment of those credits will not come from the persons who made the decisions
that led to the underpayments but from the funds set aside for the benefit of all participants in the plan.

Because the appellate courts have not explained how the lower courts were to arrive at a "fair estimate" of a proper interest crediting or how they should approach their task, I have done so by framing the question in this way: "What would reasonable persons in the position of the Alliant Energy personnel responsible for drafting the new pension plan in 1997 have chosen for a fair estimate of the interest crediting rate to be used in determining the lump sum equivalent of an annuity?" I have assumed that the drafters would have known of their responsibilities under the Internal Revenue Code and ERISA and would be familiar with the proposals the parties have made in this case, and would have had the same knowledge of market performance as that of any other person in 1997. The responsible persons would have known that they had to account for the interest that employees would have earned on their cash balance accounts and could not use the 30-year Treasury rate to calculate a fair approximation of the future value of the accounts, but had to choose a rate that fairly reflected the actual effect of the variable rate provided in the plan.

## B. Possible Approaches to Determining a Fair Interest Crediting Rate

The parties have put forward three possibilities that the drafters might have considered in determining a fair estimate of plaintiffs' interest crediting rate: a rolling five-
year average; treating each year's earnings rate as an option and applying the Black-Scholes method to determine its probable value; or utilizing stochastic modeling to produce a likely rate. The District Court for the Eastern District of Wisconsin adopted a variation of the rolling five-year average approach in a similar case, Thompson v. Retirement Plan For $\underline{\text { Employees of S.C. Johnson \& Sons, Inc., } 07-\mathrm{cv}-1047 \text { (E.D. Wis. Aug. 19, 2010). I am not }}$ persuaded that in 1997, reasonable persons would have adopted the five-year rolling average approach as one that would fairly reflect the credit to which plaintiffs are entitled. For context only, I will discuss a fourth approach that neither side has suggested, which would simply assign each plaintiff the interest crediting rate in effect at the time she claimed her lump sum benefit.

Defendant concedes that applying the current year's interest crediting rate to lump sum benefits would be unfair to the participants. Had this approach been in effect during the relevant time period, in five of the first 12 years of the plan, participants who left early and needed their lump sum benefits immediately would have received the lowest $4 \%$ credit. Participants who either left in different years or could afford to delay receipt of their benefits, as the plan allowed, could have been credited with rates as high as $9.60 \%$ (2006), $8.25 \%$ (2004) or even $16.95 \%$ (2003). The plan's drafters would not have been acting reasonably had they chosen such a method of determining the interest crediting rate. Not only was it unfair as a general proposition, but the unfairness would have undercut the efforts to induce
employees of Alliant Energy's newly affiliated companies to leave their old plans. Perhaps most important to the drafters, the potential costs to the plan could have had an adverse effect upon the plan's financial health. Participants who could afford to wait to take their lump sum benefits would wait to do so in the years in which the rate was high. The net effect could have been a rate far in excess of the $8.45 \%$ or $6.93 \%$ proposed by the parties. To apply a current year rate now, when participants no longer have a choice about when to take their distributions, might protect defendant from participant opportunism, but at the price of unfairness to the participants.

The rolling five-year average approach smooths out some of the unfairness to the participants, but not all of it. The approach would have been unfair to those whose five-year period encompasses the three years from 2000-2002, when the rate never exceeded $4 \%$. Again, as with the current year approach, the drafters would not have adopted such a method of rate determination in 1997, because of the likelihood that participants would time their withdrawals for the period in which the interest crediting rate was highest overall. No doubt the five-year rolling average approach seems attractive to defendant now, long after the participants have made their decisions to withdraw their lump sum benefits and cannot time their withdrawals to the most favorable five-year period, but it is not the method that reasonable persons would have chosen in 1997.

The proposal that defendant advanced at trial is Vincent Warther's Black-Scholes
projection. It has some initial appeal, but it too has flaws, both because it is not generally used for assets that are not traded regularly and because it is not a good tool for valuing assets far out into the future. Black-Scholes bases its volatility input on the current or immediate volatility of the stock and assumes a constant volatility over the life of the option. As well suited such an approach might be to the task of valuing a short term option, it is less appropriate for valuing an extremely long term option. Warther tried to deflect this criticism by explaining that the model was intended to be a series of yearly options, each of which would be open for only one year, thus reducing the volatility that would be present if the hypothetical option were considered open for many years. In doing so, however, he avoided taking into consideration the wealth preserving value of the $4 \%$ floor that the plan provided. His only accommodation to this feature was making it part of the "option price," without explaining how that did anything more than account for the certainty of receiving at least $4 \%$ in any one year.

Moreover, Warther's volatility determination seemed intended to rule out volatility almost completely. In arriving at it, he used the $10.25 \%$ estimate of volatility that Yanni Partners had made in 1998. He did not check this estimate against the Ibbotson data from 1926-1997 because he believed that inclusion of the Great Depression in the data resulted in unusual and unreliable volatility. Instead, he checked the estimate only against the actual plan and then only for a period of six years. He left out the plan's actual results for the years

2007-2008, because he thought those years would inflate the results and because the volatility in those years was unexpected. In addition, in preparing his volatility analysis, Warther included the performance of one of defendant's predecessor plans, which was invested entirely in bonds. Again, this decision produced an additional dampening effect on the volatility determination.

Where Warther culled his analysis of volatile features, Maxam emphasized them, predominantly in his choice of using data back to 1926, thereby incorporating the most volatile period of stock prices. He upped the volatility again when he increased the volatility of large cap and small cap stocks during low volatility regimes. He defended these decisions as intended to capture the volatility he believed would be present over the lifetime of the plan and the effect of that volatility on the wealth preserving feature of the plan's $4 \%$ floor.

Maxam's choice of stochastic modeling is a good choice for an analysis involving as many variables as the projection of an interest crediting rate into the future. In effect, he took Warther's approach of a one-year option and expanded upon it with stochastic modeling. The aptness of his choice is confirmed by the extent to which defendant's advisers depended on stochastic modeling when they were evaluating the plan after it was in place to determine the level of funding that would be required to meet its obligations. Defendant never attacked Maxam's choice of model, only the decisions Maxam made to use high volatility inputs in the model.

Warther has a point when he criticizes plaintiffs' approach as taking the average value of the payoff in the form of the interest crediting rate. He maintains persuasively that the risk-free investment is the better model because, unlike lottery players, intelligent investors always prefer a certain return over the chance of a return equal to the average, which make risky payoffs with a given average return less valuable than a certain payoff equal to that average. Put another way, the rational investor with $\$ 100$ to invest would be more likely to make the investment for one year if promised a return of $5 \%$ for that year than if promised the chance of receiving somewhere between $\$ 0$ and $\$ 10$ for that year.

## C. Choosing the Fair Rate

In the hypothetical situation I have posited, the reasonable persons charged with deciding a fair interest crediting rate to be applied to pre-retirement withdrawals of lump sum benefits would have had a number of considerations influencing their decision, starting with their legal obligation to use an interest crediting rate that fairly reflected the actual crediting rate attributable to the cash account balances. They would have taken into account their desire to induce the employees of the newly merged companies to participate in a new plan that would replace the former plans. They would have considered their duty of fairness to all the plan participants, including those who left employment before their normal retirement age. Finally, they would have been concerned about the financial soundness of
the plan. For the reasons set out above, these decision makers would not have chosen either the rate in effect when a participant took her lump sum benefit or a rolling 5-year average. The plan drafters would have confined their decision making to the two proposals developed at trial.

As explained above, neither proposal is entirely satisfactory. Both rely necessarily on matters that can only be hypothesized and not known in advance. Chief among these is the volatility of future markets and how that volatility (or lack of it) will affect plan assets. Maxam's approach seems aimed at obtaining a rate that has a low risk of understating the future interest credits plaintiffs might have enjoyed, whereas Warther's is intended to achieve a fair value of those credits on a riskless basis.

In neither case, however, do any concerns about the proposals justify disregarding them altogether. Instead, the limitations and strengths of each model counsel in favor of treating the results of the models as delineating a range of outcomes, with $7.63 \%$ constituting the floor and $8.45 \%$ being the ceiling. (Plaintiffs argued at trial for a rate as high as $10.73 \%$, but it is implausible to think that the decision makers would have given any credence to that rate.) Treating the results as a range is appropriate when working with the uncertainties inherent in any forecast.

I believe that reasonable decision makers would have chosen a rate of $8.2 \%$. They would have found Maxam's approach more likely to be accurate than Warther's, but would
have retained some doubts about the reliability of Maxam's choices for volatility inputs and the effect of those choices on the model's outcome. It would have been reasonable for them to choose a slightly higher rate than the midpoint between the two proposals after hearing Maxam's explanation of the effect on returns of the unique wealth preserving feature of the plan. A rate of $8.2 \%$ is fair to plaintiffs and consistent with defendant's legal obligations under ERISA and the Internal Revenue Code.

## D. Pre-Retirement Mortality Discount

The parties have one remaining dispute involving the application of a pre-retirement mortality discount, which is whether it is proper to apply such a discount in determining the present value of a lump sum benefit payable to a participant who leaves employment before her normal retirement age. Because the plan provides for one, defendant argues that it should be included in the determination, but I conclude that the court of appeals' decision in Berger v. Xerox Corporation Retirement Income Guarantee Plan, 338 F.3d 755 (7th Cir. 2003), precludes application of the discount.

Berger was a case like this one, in which the plaintiff-participants in a cash account defined benefit retirement plan had left employment before their normal retirement age and had requested their benefits in a lump sum. They sued because they believed that the Xerox plan had denied them the actuarial equivalent of their benefits when it calculated their lump
sum payments. Instead of adding future interest credits to their cash balance accounts at the plan rate, which was the Treasury bill rate plus 1 percent, the plan "added interest at a rate exactly equal to the discount rate prescribed by the Pensions Benefit Guaranty Corporation," id. at 760 , that the plan was required to use for discounting future value to present value. The two rates canceled each other out, so that the employee received only the value of his cash account.

The court of appeals affirmed the district court's conclusion that the use of the PBGC rate for both calculations reduced the benefits due the plaintiffs, in violation of ERISA. In other words, the lump sum benefit payment that the defendant provided was not the actuarial equivalent of the pension benefit to which the participants were entitled. The court of appeals also affirmed the district court's refusal to allow the plan to apply a pre-mortality discount rate to the calculation of the benefit, finding the argument to the contrary to be "unfathomable, since the plan provides that if the employee dies before reaching retirement age, his spouse or other designated beneficiary steps into his shoes and is entitled to his entire benefit." Id. at 764.

Defendant has made a concerted effort to show that this case is different from Berger, but I am not persuaded by the showing. It is a tricky question, because the court of appeals gave the issue of pre-retirement mortality short shrift in Berger, but its language was emphatic. Defendant argues correctly that in this case, the spouse or beneficiary of an
employee who dies before retirement does not receive the entire pension benefit, but a lesser value. A surviving spouse of an employee is entitled to receive the "Actuarial Equivalent present value of the Participant's Cash Balance Account payable in a Single Life Annuity," Plan, tr. exh. \#323, § 5.1, but this is less than the employee herself would have received. Had the employee lived to receive her accrued benefit, her cash account would have been credited with additional interest earnings. Had she taken her accrued benefit before retirement, as the plaintiffs in this case did, she would have been entitled to the whipsaw benefit that was intended to approximate what she would have received at retirement, discounted to present value.

By contrast, the annuity or lump sum benefit provided the surviving spouse of an employee who dies before retirement is not projected forward to pick up future interest credits. Rather, it is limited to the cash balance account as of the date of death. Defendant argues that this difference distinguishes this case from Berger. In some ways this is an odd argument for defendant to make. Under its original interpretation of the plan, in which the whipsaw calculation was destined to be a wash, the surviving employee who chose a lump sum before her normal retirement age would not have received any more than the surviving spouse, making the two payouts indistinguishable from one another.

Defendant has not shown that even with a properly calculated interest crediting rate, a surviving spouse would receive so much less than what his employee-spouse would have
received had she taken a pre-retirement benefit in a lump sum payment as to justify the application of a pre-retirement mortality rate. (After all, a pre-retirement mortality rate represents the chance that a participant will die and have a total loss before retiring.) In both Berger and in this one, the spouse or other beneficiary is "stepping into the employee's shoes." Even if the step results in a slightly reduced benefit, it is not zero. The existence of this "non-zero" undermines defendant's argument in favor of applying a pre-retirement mortality rate.

But defendant argues that the death benefits that surviving spouses and designated beneficiaries receive could be zero because their death benefits are only incidental, ancillary benefits that do not qualify as non-forfeitable benefits protected by ERISA. Essentially, it is arguing that the court of appeals erred in Berger when it found the possibility of receiving such a benefit equivalent to stepping into the shoes of the deceased participant, because it is impossible to be sure that forfeitable benefits will always be available. If those benefits can be withdrawn at any time, one can never be sure that there will be shoes to step into. This is an interesting, if not completely convincing argument, but it is not one I can address. If, as defendant contends, the court of appeals erred, only that court can correct the error. In the meantime, this court is obligated to follow the ruling in Berger.

Alternatively, defendant may be arguing that the nature of the death benefits in Berger was different from that of the death benefits at issue in this case. It is not clear, but

I need not linger on this argument because the facts about the death benefits available to the Xerox participants are not in the record. If the death benefits in that case were of a different character, defendant had an opportunity to submit more evidence to this court.

In support of its arguments in favor of applying the pre-retirement mortality discount, defendant relies heavily on two unpublished cases, one from the Eastern District of Louisiana, Cedotal v. Whitney National Bank,, no. 94-1397 (E.D. La. 2007), and one from the Fifth Circuit, Stewart v. AT\&T Pension Benefit Plan, 354 Fed. Appx. 111 (5th Cir. 2009). It is not necessary to discuss either case at length. Neither one is a published decision; neither would be of any precedential effect on a court in the Seventh Circuit even if it were published; and neither involved a cash balance defined benefit plan. In Cedotal, the only issue relevant to this case is whether certain pre-retirement death benefits could be reduced without violating ERISA; the court held that they could. Assuming, as I do, that the court's ruling was proper on the facts of that particular case and considering it as a reason not to find in this case that surviving beneficiaries step into the shoes of the deceased participant, I am still bound by the holding in Berger.

In Stewart, the court of appeals approved the application of a pre-retirement mortality discount to a benefit that was forfeited on the death of the participant, under the terms of the plan before it. The court noted specifically that the plan it was considering differed "substantially" from the cash balance plans at issue in Berger and in West v. AK Steel Corp.

Retirement Accumulation Plan, 484 F.3d 395 (6th Cir. 2007).
In summary, so long as Berger continues to be good law, I am required to follow its holding that a benefit plan cannot apply a pre-retirement mortality discount in calculating the present value of a plan participant's cash balance account when the plan provides continuing benefits for surviving spouses and designated beneficiaries. Berger, 338 F.3d at 764.

Now that the parameters have been established, it will be up to the parties to confer about the calculation of the actual award to each plaintiff. Plaintiffs have submitted a "live" spread sheet so that the court can perform the calculation, but I decline to do it. It is the parties' obligation to determine the proper calculation in the first instance.

## ORDER

IT IS ORDERED that in determining the lump sum benefits of plaintiffs Lawrence G. Ruppert and Thomas A. Larson and other members of the plaintiff class, defendant Alliant Energy Cash Balance Pension Plan is to apply an interest crediting rate of $8.2 \%$ and no pre-retirement mortality discount. The parties are to confer promptly on the manner in which they will agree to handle the calculation of the damages due each individual plaintiff
and to advise the court of their decision on that point no later than January 7, 2011.
Entered this 29th day of December, 2010.
BY THE COURT:
/s/
BARBARA B. CRABB
District Judge

