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## Defined Benefit Plans (Retirement)

A defined benefit plan, in this context, is an annuity type plan that is paying out to the beneficiary a monthly pension. Often they are split by QDRO to avoid any error, but that may not be the best plan for your client.

This may be a marital asset of appreciable value, how then to you quickly and easily get a very good guess at the value to decide how to treat in in a settlement or trial over the division of assets?

Asking an expert involves time and money. Before doing so, it may be prudent to have a general idea. (Besides, it can sure impress a client or opposing counsel to learn that you can guess, and that your guess is not very far off the eventual expert's opinion.)

Most plans will provide a summary of the current benefits, including the amount vested, and calculate the age of retirement. Often at age 65, even though the age of retirement for those born after 1960 it is 67 under Social Security standards. <http://www.ssa.gov/retire2/retirechart.htm> (Last visited January 17, 2015.)

This method is a standardized method that arguably could be presented as a suggested finding using IRS standards and tables. It would depend on the Court in question, whether it passes the foundation requirements or an expert is required.

Obtain that statement indicating the monthly benefit at an age certain from the employer or annuity.

Find the beneficiaries' life expectancy using IRS table. Publication 590 has a table in the appendix C of that publication. (See figure 3 in this appendix for the current version of .pdf <http://www.irs.gov/pub/irs-pdf/p590.pdf> (last visited January 17, 2015).)

Find the value of a T-Bill for a comparable period of time (Wall Street Journal or the web.)

To calculate the mortality discount, use the mortality table found in IRS Table 2000CM shows, for each age, the number living based upon a starting population of 100,000 lives at age 0 ( $l_x$ ).

Take population ( $l_x$ ) at age 65 (903771.11) and divide it by the population at the age of the annuitant. For example a 45 year old's probability of living to age 65 would be  $82224/95268 = 86.3\%$ . A 45 year old has a 86.3% chance of living to 65 or a 13.7% of not living that long. (A copy of the current Table 2000CM is below).

All of this information is loaded into a spreadsheet template that you keep handy. (Mine is in a template that has, a child support worksheet, a maintenance worksheet, and a balance sheet formatted so I just open the document from a template and create for each client file.

Table for Calculating Defined Benefit Plan

		Formulas for Excel
Valuation date	01/17/15	input
Date of Birth	04/03/58	input
Current age	57	"=(ROUND((C3-C4)/365.25,1))"
Monthly pension at age 65	\$1,450	input
<b>Tax discount:</b>		
Benefit reduced by state and federal income taxes (28%+?%)	\$1,044	"=C6*(1-28%)"
<b>Present valuation at age 65</b>		
Current US Treasury Bond yield rate	2.40%	input
Life expectancy from age 65	21.0	see instructions
Present value at age 65	\$206,496	"=PV(C10/12,C13*12,-C8,,0)"
<b>Discount for interest and mortality</b>		
Number of months from now to age 65	98.4	"=(65-C5)*12"
Current US Treasury Bond yield rate	2.40%	input
present valuation at valuation date before mortality discount.	\$169,640	"=PV(C22/12,C20,, -C15,0)"
Mortality discount	13.69%	"=1-(82224/95268)"
Present value including mortality discount	\$146,413	"=C24*(1-C26)"
<b>Marital interest</b>		
Date employment began	08/22/98	input
Marriage date	10/14/05	input
Total months employment	196.8	"=(ROUND((C3-C31)/365.25,1))*12"
Total months married	111.6	"=(ROUND((C3-C32)/365.25,1))*12"
Coverture fraction	56.707317%	"=IF(C34/C33>=1,1,C34/C33)"
Marital portion		
\$146413.02 x 0.567073	\$83,027	"=C28*C35"

Table 2000CM

Section 6

Age x	$l_x$	Age x	$l_x$	Age x	$l_x$
0	100000	37	96921	74	66882
1	99305	38	96767	75	64561
2	99255	39	96600	76	62091
3	99222	40	96419	77	59476
4	99197	41	96223	78	56721
5	99176	42	96010	79	53833
6	99158	43	95782	80	50819
7	99140	44	95535	81	47694
8	99124	45	95268	82	44475
9	99110	46	94981	83	41181
10	99097	47	94670	84	37837
11	99085	48	94335	85	34471
12	99073	49	93975	86	31114
13	99057	50	93591	87	27799
14	99033	51	93180	88	24564
15	98998	52	92741	89	21443
16	98950	53	92270	90	18472
17	98891	54	91762	91	15685
18	98822	55	91211	92	13111
19	98745	56	90607	93	10773
20	98664	57	89947	94	8690
21	98577	58	89225	95	6871
22	98485	59	88441	96	5315
23	98390	60	87595	97	4016
24	98295	61	86681	98	2959
25	98202	62	85691	99	2122
26	98111	63	84620	100	1477
27	98022	64	83465	101	997
28	97934	65	82224	102	650
29	97844	66	80916	103	410
30	97750	67	79530	104	248
31	97652	68	78054	105	144
32	97549	69	76478	106	81
33	97441	70	74794	107	43
34	97324	71	73001	108	22
35	97199	72	71092	109	11
36	97065	73	69056	110	0

<http://www.irs.gov/Retirement-Plans/Actuarial-Tables> (Last visited January 17, 2015.)

**Appendix C. (Continued)**

<b>Table I</b> <b>(Single Life Expectancy)</b> <b>(For Use by Beneficiaries)</b>			
<b>Age</b>	<b>Life Expectancy</b>	<b>Age</b>	<b>Life Expectancy</b>
56	28.7	84	8.1
57	27.9	85	7.6
58	27.0	86	7.1
59	26.1	87	6.7
60	25.2	88	6.3
61	24.4	89	5.9
62	23.5	90	5.5
63	22.7	91	5.2
64	21.8	92	4.9
65	21.0	93	4.6
66	20.2	94	4.3
67	19.4	95	4.1
68	18.6	96	3.8
69	17.8	97	3.6
70	17.0	98	3.4
71	16.3	99	3.1
72	15.5	100	2.9
73	14.8	101	2.7
74	14.1	102	2.5
75	13.4	103	2.3
76	12.7	104	2.1
77	12.1	105	1.9
78	11.4	106	1.7
79	10.8	107	1.5
80	10.2	108	1.4
81	9.7	109	1.2
82	9.1	110	1.1
83	8.6	111 and over	1.0

<http://www.irs.gov/pub/irs-pdf/p590.pdf> (last visited January 17, 2015)