

U.A. LOCAL NO. 393
DEFINED BENEFIT PENSION PLAN

SUMMARY PLAN DESCRIPTION

Revised as of November 1, 2021



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November 1, 2021

Dear Plan Participant,

We are pleased to present you with this Summary Plan Description (SPD) of the rules and regulations of the U.A. Local No. 393 Defined Benefit Pension Plan ("the Plan or the Fund").

We have revised this summary to help you understand and appreciate the benefits and retirement security the Plan provides to you. The Plan has been providing meaningful lifetime retirement income to eligible participants since the 1950s. We are proud of this achievement and hope the Plan can continue this legacy far into the future.

We understand that the plan rules are complicated. We encourage you to contact the Administration Office to answer any question you may have about

- what it means to be vested,
- how your age and years of credited service determine your eligibility for a benefit,
- how the hours you work in the industry determine the amount of pension benefit you can expect when you retire,
- your options for designating a beneficiary, or
- any other rule or feature that you would like to understand.

You may contact the Administration Office by calling (408) 588-3751, by writing to us at the email or mailing address on this letterhead, or through the Plan's website at **www.ualocal393benefits.org**.

We have authorized the Administration Office to respond in writing to your written questions. Information provided by the Administration Office is not binding upon the Board and cannot be relied on in any dispute concerning your benefits. Only the full Board of Trustees is authorized to interpret the Plan. The Board has discretion to decide all questions about the Plan.

On the website, you will find useful links to important documents and forms you may need, including this SPD and the Formal Plan Text on which it is based.

Thank you for taking the time to read this SPD. Please keep it for future reference to assist you with your retirement planning needs.

Sincerely,

The Board of Trustees

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Este resumen describe el Plan para ayudarlo a comprender los beneficios y la seguridad de jubilación que le brinda el Plan. Si desea recibir esta información en español, llame a la Oficina de Administración al (408) 588-3751.

Nothing in this Summary Plan Description is meant to interpret or extend or change in any way the provisions expressed in the Formal Plan Text. The Fund shall not be bound by the representations of any person, other than the full Board of Trustees, regarding participation in the Plan, eligibility for benefits under the Plan, the status of employees or employers under the Plan, or any other matters relating to the Pension Plan or Fund.

I. INTRODUCTION

Plan History

On January 1, 1956, U.A. Local No. 393 and U.A. Local No. 467 established the Joint Pension Trust Fund. The Plan was designed so that when an eligible employee retires, he or she would receive a monthly pension benefit for the rest of his or her life. At that time, retirees of the Plan received a guaranteed annuity from New York Life Insurance Company as the retirement benefit.

The benefit started as \$10 a month with a contribution rate of \$0.10 an hour, from a wage package of \$3.45 an hour. Initially, retirees were eligible for a Normal Retirement Benefit at age 62 with 10 years of Benefit Credit. Over the years, the bargaining parties regularly increased the contribution rates and the Plan regularly increased the benefit amounts.

In the early 1970s, the Trustees introduced a new form of benefit – Unreduced Early Retirement – for retirees at age 55 with 25 years of Benefit Credit.

On July 1, 1976, the Joint Pension Trust Fund split in two, establishing the Local No. 393 Plan and the Local No. 467 Plan. This Plan retained the annuity contract with New York Life Insurance Company for those previously retired. At the time, the Plan had assets of roughly \$13 million, annual contributions of \$2.4 million and annual benefit payments of \$1.2 million.

In the late 1970s, the Trustees established another plan – the U.A. Local No. 393 Defined Contribution Plan - as a compliment to this defined benefit plan, to further assist Participants with their retirement income needs.

Later, the Plan invested in Guaranteed Investment Contracts (GICs) with the New York Life Insurance Company. Over time, the Plan sought alternative investments, including real estate, stocks and bonds for its investment portfolio. Since 1994, the Plan's assets have been managed by the Trustees with the advice of Investment Consultant Don Grijalva, currently with Raymond James Investments.

The Trustees of the Pension Plan are committed to ensuring that benefits will be available when you retire, many decades into the future. Today's retirees are generally living longer than the retirees of the 1950s. Longer lifespans mean that paying a lifetime benefit is more expensive for the Plan.

On May 1, 2017, the Trustees took action to raise the Early Retirement age and to make other changes (such as requiring longer periods of work to qualify for an early pension benefit) for new plan participants to ensure that the Plan can continue to provide pension benefits decades into the future. This means that for new entrants like apprentices and employees first working under the Plan on or after May 1, 2017, it will require more years of service and higher ages to become eligible for an early retirement benefit. For example, to qualify for Unreduced Early Retirement in the 1970s, you needed to be age 55 and have earned 25 years of Benefit Credit. For participants entering the plan on or after May 1, 2017, the qualifying age for this form of benefit has increased by 5 years to age 60.

Some Interesting Facts

This section provides some interesting facts and figures about the Plan, effective as of December 31, 2019.

- 2019 Benefit Formula - Participants earned \$0.11 for each hour of covered employment toward their Normal Retirement Benefit, with a minimum of 100 hours required for any credit, and no maximum limit on the number of hours that can be used for Benefit Credit.

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- Contributing Employers - 118 employers were obligated to contribute to the Plan during the 2019 Plan Year.
- 2,340 participants were earning or were qualified to earn a pension.
- 1,210 retirees and beneficiaries were receiving a pension benefit.
- The Plan received total contributions of \$53,278,038 in 2019.
- The Plan paid total benefits of \$25,590,311 in 2019.
- The Plan had total assets of \$604,855,966 as of December 31, 2019.

The chart on the following pages shows how the plan has performed over the past few decades. It shows annual contributions made to the plan, annual benefits paid to beneficiaries, annual market returns and how Plan assets values have grown over the years.

Market Value Asset History (1976- 2019)			
Plan Year Ending 12/31	Plan Year Contribution	Plan Year Benefits Paid	Market Value of Assets at Year End
1976*	\$2,219,922	\$1,169,049	\$13,069,398
1977*	\$2,425,478	\$1,189,133	\$15,235,418
1978*	\$2,605,052	\$1,343,587	\$17,654,853
1979**	\$4,625,767	\$2,130,235	\$22,382,485
1980	\$3,319,880	\$1,597,834	\$26,091,274
1981	\$3,713,614	\$2,070,699	\$30,324,769
1982	\$3,518,990	\$2,374,785	\$34,275,908
1983	\$3,135,854	\$2,455,583	\$38,360,192
1984	\$4,236,256	\$2,779,384	\$43,612,291
1985	\$4,262,782	\$2,929,634	\$49,681,595
1986	\$4,155,222	\$3,199,624	\$55,718,673
1987	\$4,287,769	\$3,540,274	\$61,880,648
1988	\$4,600,899	\$3,804,615	\$65,719,826
1989	\$4,854,153	\$4,587,620	\$70,866,917
1990	\$4,779,725	\$4,908,128	\$75,807,252
1991	\$4,530,150	\$5,205,064	\$82,392,784
1992	\$4,413,942	\$5,363,119	\$85,743,980
1993	\$4,624,366	\$5,630,706	\$91,495,391
1994	\$4,302,714	\$5,799,493	\$96,267,815
1995	\$5,131,854	\$6,106,618	\$104,996,030
1996	\$7,329,848	\$6,628,358	\$115,593,376
1997	\$7,203,463	\$6,972,349	\$125,255,961
1998	\$8,318,325	\$7,590,451	\$140,796,750
1999	\$9,464,264	\$7,745,631	\$157,084,201

Market Value Asset History (1976- 2019)			
Plan Year Ending 12/31	Plan Year Contribution	Plan Year Benefits Paid	Market Value of Assets at Year End
2000	\$11,069,692	\$8,620,754	\$164,175,166
2001	\$11,008,533	\$9,391,812	\$164,172,556
2002	\$9,441,362	\$9,454,637	\$155,387,297
2003	\$9,026,828	\$9,894,215	\$169,918,754
2004	\$10,342,147	\$9,710,169	\$184,341,789
2005	\$10,003,514	\$10,221,447	\$195,037,186
2006	\$10,953,228	\$10,808,904	\$214,176,856
2007	\$13,733,419	\$11,872,631	\$229,963,301
2008	\$15,405,190	\$12,330,708	\$184,262,282
2009	\$15,485,566	\$13,495,110	\$207,357,207
2010	\$17,322,901	\$13,869,068	\$228,227,216
2011	\$19,309,409	\$15,047,605	\$234,785,572
2012	\$25,693,173	\$15,774,423	\$259,504,305
2013	\$28,870,443	\$16,387,021	\$318,702,418
2014	\$30,915,260	\$17,791,151	\$350,201,036
2015	\$37,983,842	\$19,188,110	\$369,359,850
2016	\$45,040,839	\$20,390,363	\$413,090,922
2017	\$45,436,103	\$21,921,505	\$486,343,327
2018	\$49,499,409	\$22,742,377	\$499,441,892
2019	\$53,278,038	\$25,590,311	\$604,855,966
Totals	\$581,879,185	\$391,624,294	

* Plan Year Ended 6/30

** Change to Plan Year Ending 12/31 (18 months period)

About the Plan

As a participant of the Plan, you can look forward to receiving a benefit at retirement, once you are fully vested and meet the requirements for a pension.

The U. A. Local No. 393 Defined Benefit Pension Plan (“Plan”, “Pension Plan”), historically called the “Part A Plan”, is designed to work with your Social Security benefits, your U.A. Local No. 393 Defined Contribution Plan, and your personal savings and investments to provide you with income when you retire.

This Plan is a “defined benefit” retirement plan. This means that the once you are vested, you will receive a fixed monthly benefit at retirement. This type of plan is different from a defined contribution plan, where the amount you receive at retirement depends on investment returns.

The provisions of the Plan described in this SPD generally apply to current Employees, working in covered employment under the collective bargaining agreements of U.A. Local No. 393. If you are not an active participant, a prior version of this SPD may apply to you. Copies may be obtained by making a written request to the Administration Office.

How To Get More Information

At the end of this SPD is general information about the Plan, with phone numbers and addresses of the Administration Office, Member Advocate, and other providers.

The Board has authorized the Administration Office to respond in writing to your written questions. If you have a question about your benefits, you should write to the Administration Office. To obtain an accurate answer, you will need to provide complete and accurate information about your situation. As a courtesy to you, the Administration Office may also respond informally to oral questions. Information provided by the Administration Office is not binding upon the Board and cannot be relied on in any dispute concerning your benefits.

Only the full Board of Trustees is authorized to interpret the Plan. The Board has discretion to decide on all questions about the Plan. No individual Trustee, employer, union representative or other person has authority to interpret this Plan on behalf of the Board or to act as an agent of the Board. Where there is a conflict between this SPD and the Formal Plan Text, the Formal Plan Text shall govern.

II. DEFINITIONS

These definitions are intended to help you understand the key concepts and terms of the Plan. For complete definitions, please refer to the definitions section, Article I, of the Formal Plan Text.

Actuarial Equivalent, unless otherwise specified in this Summary Plan Description or in the Formal Plan Text for a particular benefit, means the present value of a payment or series of payments to a person or persons that has the same present value as another payment or series of payments, based upon the UP 1984 Table of Mortality with interest at the rate of eight (8%) percent per annum.

Annuity Commencement Date means:

- The first day of the first period for which an amount is payable as an annuity; or
- The first day on which a benefit is payable in a form other than an annuity when all events have occurred which entitle the Participant to the benefit; or
- The first day of the first period for which a benefit is payable by reason of disability, but only if the benefit is not an auxiliary benefit.

Collective Bargaining Agreement ("CBA") means the Master Labor Agreement of U. A. Local No. 393, any other labor agreement or project agreement of U. A. Local No. 393, or any labor agreement or project agreement providing for payment of contributions to this Plan.

Contiguous Service means employment by an Employer maintaining the plan, in a position not covered by a Collective Bargaining Agreement with U. A. Local No. 393, which immediately precedes or follows covered employment without a quit, retirement or discharge between the covered and non-covered employment.

Credited Service, except where specifically defined for a particular purpose, means employment in a position for which contributions are required to be made to this Plan.

Domestic Partner means, two adults who established a domestic partnership in California by filing a Declaration of Domestic Partnership with the Secretary of State. At the time of filing, all of the following requirements must be met:

- Both persons have a common residence.
- Neither person is married to someone else or is a member of another domestic partnership.
- The two persons are not related by blood in a way that would prevent them from being married to each other in this state.
- Both persons are capable of consenting to the domestic partnership.
- Either of the following must be true:
 - Both persons are members of the same sex, or
 - If they are of opposite sex, at least one person is over the age of 62 and qualifies for certain Medicare and Social Security benefits.

A Participant's Domestic Partner will not be eligible for Domestic Partner benefits until the Administration Office has been provided with a copy of the official Certificate of Registration of Domestic Partnership.

Employee means any person in one of the following categories, as long as that person has performed sufficient Credited Service in a Plan Year to accrue Vesting Credit and not thereafter suffered a one-year break in service:

- Any person who performs or has performed employment in a classification covered by a Collective Bargaining Agreement which requires contributions to be made to this Plan for such employment.
- Any person who is employed in a paid position for U. A. Local No. 393, for the U. A. Local No. 393 apprentice training program, or for any related entity approved by the Trustees, for which position the Employee's employer has agreed to make contributions to this Plan.

Employer means:

- Any individual who, or entity which, has executed a Collective Bargaining Agreement requiring contributions to be made to this Plan,
- U. A. Local No. 393,
- U. A. Local No. 393 apprentice training program, and
- A related entity approved by the Trustees.

Gender Whenever one of the pronouns "he" or "she," or one of the possessive pronouns "his" or "her" is used alone in the Plan, it shall be understood as including persons of any gender, to the end that the same rights under the Plan shall be enjoyed by covered Employees and beneficiaries of any gender.

Hour

- For purposes of Vesting Credits, an Hour means any actual hour of employment, or time treated as employment, under Article IV, Section 1 of the Formal Plan Text.
- For purposes of meeting the minimum allowable hours of Credited Service under Article IX only, an Hour of Credited Service means an hour of employment for which contributions were required to be made to this Plan.
- For purposes of Benefit Credit, Hour means an hour of employment for which contributions were made to this Plan, or after July 1, 1969, for which contributions were required to be made to this Plan, or other time which is treated as employment under Article V, Section 2 of the Formal Plan Text, except as follows. If an

Employee worked under a collective bargaining agreement other than the Master Labor Agreement, the number of Hours with which an Employee shall be credited shall be adjusted proportionally to reflect the difference between the contribution rates of the two agreements.

Industry Service and "Employment in the Plumbing and Pipefitting Industry" means Industry Service [Section 202(a)(3)(B) Service] as that term is used in 29 C.F.R. § 2530.203-3(c)(2).

Industry Service and Employment in the Plumbing and Pipefitting Industry includes any work in the Plumbing and Pipefitting Industry, or any work which uses the skill, training and education acquired as a Plumber or Pipefitter, including a skill or skills learned during a significant period of training or practice. Employment in supervisory activities relating to any of the above skills is also considered Industry Service.

Industry Service includes employment in any capacity in the Plumbing and Pipefitting Industry, whether by or in association with a union contractor or non-union contractor, or as a self-employed person. See Article I, Section 8 of the Formal Plan Text and 29 C.F.R. § 2530.203-3(c)(2) for more details.

There are two **exceptions** to this definition:

- An inspector for any public agency (including plumbing or mechanical inspector), in a position not involving the use of the tools of the trade, whether employed directly or indirectly by the public agency; or
- Employment for a retail store in a position not involving the installation of plumbing facilities.

Industry Service also includes any paid employment for U. A. Local No. 393 or a related entity in a position for which contributions are made to this Plan.

Normal Retirement Age means age 65, or if later, the age of the Participant on the 5th anniversary of his participation. Participation before a permanent break in service and participation before a temporary break in service in the case of a former Participant do not count toward the 5 years of participation in the Plan.

Normal Retirement Benefit means the monthly benefit payable under a Single Life Annuity under the Plan, for a single Participant who retires upon reaching Normal Retirement Age.

Participant means any Employee or former Employee who is or may become eligible to receive a benefit from this Plan or whose beneficiaries may be eligible to receive a benefit.

Plan Year For all years starting on or after January 1, 1980, Plan Year means the calendar year.

- For the Plan Year Ending December 31, 1979, Plan Year means the period from July 1, 1978 through December 31, 1979.
- For all years prior to that, Plan Years means the 12-month period commencing on July 1st of a calendar year and ending on June 30 of the next calendar year.

Any reference to a Plan Year by a calendar year means the Plan Year ending during that calendar year.

Plan Name This plan is formally called the U. A. Local No. 393 Defined Benefit Pension Plan ("Plan", "Pension Plan", "Defined Benefit Pension Plan") and has historically been called the "Part A" plan.

Related Plan Any plan that is signatory to a reciprocity agreement to which this Plan is also signatory, including the United Association Pension Fund Reciprocal Agreement and the Plumbers and Pipefitters National Pension Fund

Optional Pro Rata/Partial Pension Addendum. By resolution duly adopted, the Board of Trustees may recognize any other Plan as a related Plan.

Required Beginning Date Your Required Beginning Date as a Participant is the April 1st of the calendar year following the calendar year in which you **attain age 72**. This limit was recently increased from age 70½ as per Federal law. You must begin receiving your pension benefit no later than Your Required Beginning Date.

Example: You attain age 72 on February 1, 2022. Your Required Beginning Date is April 1, 2023.

Spouse means the person to whom the Participant is legally married.

All other terms not defined in this Summary Plan Description shall have the meaning ascribed to that term in the Formal Plan Text, Trust Agreement, or in an applicable Collective Bargaining Agreement.

III. WHO CAN PARTICIPATE IN THE PLAN?

You can participate in this Plan if you are an Employee of an Employer, as those terms are defined in the Definitions section.

An Employee who has an ownership interest in an Employer may continue to participate in this Plan **only if** the following criteria are met:

- The Employer is incorporated;
- The Employer is a signatory to a collective bargaining agreement with U.A. Local 393;
- The Employer signs a written participation agreement;
- The Employer's participation is approved by the Trustees or a designated committee of Trustees;
- The Employee has earned at least 10 years of Vesting Credit in this Plan;
- The Employer contributes on behalf of all Employees who are eligible to participate in this Plan; and
- The Employee's participation is otherwise in accordance with applicable law.

IV. HOW DOES THE TIME YOU WORK COUNT?

Credited Service

Your right to pension benefits depends upon how many years of Credited Service you have earned. You earn Credited Service by performing employment for participating employers in positions for which contributions are required to be made to this Plan (covered employment). Credited Service is comprised of Vesting Credit and Benefit Credit.

Vesting Credit

Vesting Credit is used to determine your right to a benefit. Since the Plan counts more types of working hours for Vesting Credit, it is possible to earn a year of Vesting Credit while only earning a portion of a year of Benefit Credit.

Your right to a Normal Retirement Benefit, upon otherwise qualifying for retirement under the Plan, may not be taken away from you once your interest in the Plan becomes vested. **Until you are vested, however, you may lose your right to benefits under the Plan if you stop performing covered employment.**

When You Are Vested In the Plan

As required by federal law, the Plan's vesting rules changed effective January 1, 1999. Effective January 1, 1999, your benefits will be vested if you have earned five (5) years of Vesting Credit, counting only full years of 1000 or more hours of covered employment, and you satisfy one of the following rules:

- You performed at least 300 hours of covered employment in 1998, and at least one hour in 1999; or
- You performed at least 300 hours of covered employment in 1999, or in any single Plan Year thereafter.

Vesting Credit earned before a permanent break in service does not count toward this five-year vesting rule. Please see the Section “When you lose Benefit and Vesting Credit.”

If you have not worked in covered employment since 1999 or you do not satisfy the criteria for five-year vesting, please see the vesting requirements described in Article IV, Section 3 of the Formal Plan Text or call the Administration Office for more information.

Once you are vested:

- You are entitled to a vested pension at Normal Retirement Age,
- You will never have a permanent break in service, as described in Section V of the Formal Plan Text, and
- Your Credited Service will never be canceled.

How You Earn Vesting Credit

Summarized below are the ways in which you can earn Vesting Credit:

- You earn 1 Vesting Credit for each Plan Year in which you work at least 1,000 hours of covered employment whether or not employer contributions are actually received.
- You earn 1/10th of a Vesting Credit for 100 hours of covered employment in a Plan Year, up to a maximum of 1 Vesting Credit per Plan Year (Note that only full years of 1,000 hours or more of covered employment count toward the five-year vesting rule above)
- Effective January 1, 1998 through December 31, 2007, you only earn Vesting Credit if you worked at least 300 hours in the Plan Year.
- Plan Year 1979 is an exception since the Plan Year changed. *(You could earn 2 years of Vesting Credit for the 18-month period of July 1, 1978 through December 30, 1979.)*
 - The 12 months of July 1, 1978 through June 30, 1979 is an eligible period
 - The 6 months of July 1, 1979 through December 30, 1979 is an eligible period
- If you have 5 or more years of Vesting Credit and became totally disabled whether permanently or temporarily from performing covered employment, you are given 1/4th of a Vesting Credit for each full year of disability, with proportional fractions for partial years of disability. Note that this disability vesting credit does not count toward the five-year vesting rule above or toward the accrual of benefits. You cannot earn more vesting credit under this rule than what is required for you to be vested under the Plan. There are special rules that apply if you return to work and then become disabled again. Please check Article IV, Section 4 of the Formal Plan Text if this is your situation.
- You can earn Vesting Credit by working in covered employment under a pro-rata reciprocal agreement between U.A. Local 393 and another UA Trust Fund.
- Newly Organized Employees, as defined in the Formal Plan Text, will be granted an additional 50 hours to apply toward Vesting Credit.

Vesting Credit Examples

In the below example, the participant worked 1,000 hours in 5 consecutive Plan Years and earned 5 years of Vesting Credit. She is Vested.

Year	2016	2017	2018	2019	2020
Hours	1,000	1,000	1,000	1,000	1,000
Vesting Credit	1.00	1.00	1.00	1.00	1.00

In the below example, the participant worked 1,000 hours in 5 non-consecutive Plan Years. He is Vested because he never incurred a permanent break in service.

Year	2012	2013	2014	2015	2016	2017	2018	2019	2020
Hours	500	1,000	1,000	300	1,000	0	700	1,000	1,000
Vesting Credit	0.50	1.00	1.00	0.30	1.00	0	0.70	1.00	1.00

In the below example, the participant worked more than 1,000 hours and earned a full year of Vesting Credit in only 3 out of 7 Plan Years. The participant is not Vested.

Year	2014	2015	2016	2017	2018	2019	2020
Hours	700	1,000	900	1,000	800	1,000	500
Vesting Credit	0.70	1.00	0.90	1.0	0.80	1.00	0.50

Which Hours Count Toward Vesting Credit

For the purpose of Vesting Credits, an Hour means any actual hour of employment, or time treated as employment such as qualifying military leave and paid holidays. For more details, please refer to Article IV, Section 1 of the Formal Plan Text.

You earn Vesting Credit while you are working in a job classification covered by a collective bargaining agreement or other participation agreement for an employer who is obligated to make contributions to the Plan on your behalf. You do not earn Vesting Credit when you work for an employer that does not have an obligation to contribute to the Plan.

However, when you work in the jurisdiction of another local union that has a reciprocal agreement with the Plan, employer contributions received by the away-from-home Plan may be transferred to this Plan on your behalf and you will receive Vesting Credit. Please refer to the Reciprocity Agreements section for more details. You can also earn Vesting Credit if there is a Pro-Rata Reciprocity Agreement in place.

Credited Service for purposes of Vesting Credit includes:

- Hours worked under a Collective Bargaining Agreement of U. A. Local No. 393;
- Hours of covered employment as a full-time representative of the Union or a related entity; and
- Hours recognized under a reciprocal agreement between this Trust Fund and another U. A. Trust Fund.
- Hours worked for a participating Individual Employer in non-covered employment, such as a supervisory or other non-bargaining unit position, provided there was no quit, layoff, other discharge or retirement between the covered and non-covered employment.

Example: If you work for an employer and move from a job covered under a CBA requiring contributions to this Plan to a second job that is a non-bargaining position not covered under a CBA with the same employer with no quit, layoff, discharge or retirement, you receive vesting credit for hours worked in the non-covered second job.

For more details on the criteria above, please see the vesting requirements described in Article IV of the Formal Plan Text or call the Administration Office.

Reciprocity Agreements

This Plan maintains written reciprocity agreements from time to time with United Association-affiliated pension plans in other geographic areas. The two types of reciprocity agreements are described below.

Money Reciprocity

Under a money reciprocity agreement, a Participant who is working in a geographical jurisdiction of a U. A. local union other than Local No. 393 may elect to have employer contributions remitted back to this Plan. **These agreements do not provide for retroactive reciprocity.** If you have contributions reciprocated back to this Plan, you will receive Vesting Credit based on the number of hours worked in the other area. Your Benefit Credit will be pro-rated on the contribution rate which applied to those hours and the amount of money received by this Plan.

Vesting or Pro-Rata Reciprocity

Under a pro-rata reciprocity agreement, no money is transferred back to your home pension plan when you accrue benefits under a participating plan. Instead, the years of Vesting Credit you earn under each participating plan are counted by all of the plans solely for the purposes of vesting, subject to the requirements of the agreement. If you become vested under these rules, each plan will pay benefits based on the years of Benefit Credit earned in that plan's area only. No Benefit Credit for this Plan is granted for Credited Service you performed outside of this Plan's jurisdiction under a Vesting or Pro-Rata Reciprocity Agreement.

There are currently pro-rata agreements with the U. A. National Pension Plan and several plans in the Northern California area. These agreements do not require you to complete an authorization card in advance, but they each have requirements which you must meet to benefit from them.

If you believe that you have a pension claim based on a pro-rata reciprocity agreement, or you have questions about whether they may apply to you, contact the Administration Office. You may also refer to the example on page 12.

Benefit Credit and Your Pension Amount

Once you are vested, the amount of your Normal Retirement Benefit depends on how much Benefit Credit you have accrued. Benefit Credit is granted for all Credited Service for which contributions are required, whether or not contributions are received by the Plan.

The amount of Benefit Credit you accrue for each Plan Year depends on the

- Number of hours of Credited Service you are credited with in that Plan Year, and the
- Minimum hours of Credited Service required to earn any Benefit Credit for that Plan Year.

For Credited Service performed prior to July 1, 1976...

You will be granted Benefit Credit based on the rules of the U.A. Local No. 393 and U.A. Local No. 467 Joint Pension Trust Fund. For more details, please refer to that plan's Formal Plan Text.

For Credited Service performed from July 1, 1976 through December 31, 1979...

You will be granted 1/10th of a year of Benefit Credit for each 100 hours of Credited Service you have performed in a Plan Year, up to a maximum of 1 year of Benefit Credit per Plan Year. The Plan Year 1979 was an exception since the

Plan Year changed. (You could earn 2 years of Benefit Credit for the 18-month period of July 1, 1978 through December 30, 1979.)

- The 12 months of July 1, 1978 through June 30, 1979 is an eligible period
- The 6 months of July 1, 1979 through December 30, 1979 is an eligible period

The value of a Benefit Credit for Plan Years before 1980 is show in the chart below.

Plan Year	Monthly Benefit Amount
7/1/1976 – 12/31/1979	\$22.00 for each full year of Benefit Credit

If you earned less than a full Year of Benefit Credit in any Plan Year through December 31, 1978, or less than a full Year of Benefit Credit in either period treated as a Plan Year during Plan Year 1979, your Normal Retirement Benefit for that Plan Year (or deemed Plan Year) shall be the amount stated in the chart above times the amount of Benefit Credit you accrued. If, through the Plan Year 1979, you performed more hours of covered employment in a Plan Year than necessary to accrue the maximum number of Years of Benefit Credit allowed for that Plan Year (or deemed Plan Year), no additional benefit shall be paid.

For Credited Service performed after January 1, 1980...

For covered employment on or after January 1, 1980, your benefits are calculated based on your actual hours of covered employment, not on the basis of years of Benefit Credit.

As you can see in the last column of the next chart, as of January 1, 1986, there is no limit on the number of Credited Service hours you can accumulate under this Plan. **The more hours you work in covered employment that is eligible for Credited Service, the larger your pension benefit will be upon retirement.**

Plan Year	Monthly Benefit Amount for each Hour of Credited Service	Minimum Hours of Credited Service required to qualify for Benefit Credit	Maximum Hours of Credited Service eligible for Benefit Credit
1/1/1980 – 12/31/1985	\$4.50 per 100 hours with a max benefit of \$90	100	2000
1/1/1986 – 12/31/1988	\$6.00 per 100 hours	100	N/A
1/1/1989 – 6/30/1989	\$4.50 per 100 hours	100	N/A
7/1/1989 – 12/31/1989	\$6.00 per 100 hours	100	N/A
1/1/1990 – 12/31/1997	\$6.00 per 100 hours	100	N/A
1/1/1998 – 12/31/2000	\$6.00 per 100 hours	300	N/A
1/1/2001 – 8/31/2006	\$0.06	300	N/A
9/1/2006 – 12/31/2006	\$0.07	300	N/A
1/1/2007 – 6/30/2007	\$0.08	300	N/A
7/1/2007 – 12/31/2007	\$0.09	300	N/A
1/1/2008 – 6/30/2008	\$0.09	100	N/A
7/1/2008 – 6/30/2015	\$0.10	100	N/A
7/1/2015 – Present	\$0.11	100	N/A

Example: How the numbers in the above chart apply to a Normal Retirement Benefit for a Single Life Annuity. If you worked 1,500 hours in 2020, you would earn \$165 as an accrued monthly benefit for those hours (1,500 hours × \$0.11 per hour = **\$165.00**). If you worked 1,000 hours in 2003, you would earn \$60 as an accrued monthly benefit for those hours (1,000 hours × \$0.06 per hour = **\$60.00**). Your benefit is subject to reductions depending in part on your age at retirement and the form of benefit you elect. These rules appear in Article IX, Sections 1 - 3 of the Formal Plan Text.

Pro-ration of Benefit Credit

For purposes of benefit credit, if you work under a collective bargaining agreement other than the Master Labor Agreement, the number of Hours with which you will be credited shall be adjusted proportionally to reflect the difference between the contribution rates of the two agreements. Your hours will not be pro-rated for purposes of meeting the minimum hours of Credited Service required to qualify for a benefit credit.

Example: In 2016 John worked 1,000 hours as a residential plumber under the Residential Market Recovery Labor Agreement from January to June of 2016. The hourly contribution rate in 2016 for a residential plumber working under the Residential Market Recovery Agreement for the first half of 2016 was \$1.00 and the hourly contribution rate for a building trades journeyman in 2016 working under the Master Labor Agreement for the first half of 2016 was \$13.92. John's hours for benefit credit will be pro-rated as follows:

$$\begin{aligned} \$1.00/\$13.92 &= 0.07183908 \text{ (proration factor)} \\ 1,000 \text{ hours} \times 0.07183908 &= 71.84 \text{ hours} \end{aligned}$$

For purposes of benefit credit, John is credited with 71.84 hours for the period January to June of 2016.

John's benefit credit is not pro-rated for purposes of meeting the 100 minimum hours of Credited Service required to qualify for Benefit Credit. Thus, John meets the 100 hour minimum hours of Credited Service required to qualify for Benefit Credit even if he doesn't work again in 2016.

V. WHEN CAN YOU LOSE BENEFIT CREDIT AND VESTING CREDIT?

You will lose all of your Vesting Credit and Benefit Credit if you have a permanent break in service. However, once you are vested, you cannot lose your Vesting Credit, Benefit Credit, or your right to a normal retirement pension from the Plan.

The rules listed below apply only to Employees who have worked in covered employment on or after January 1, 2008 as per Article IV, Section 5 of the Formal Plan Text. Different rules concerning breaks in service applied at other times. If you had a break in service in the past, check a copy of the Plan rules then in effect, or call the Administration Office for information concerning the Plan rule which applies to your break in service.

Please see the chart on page 11 to see the minimum number of hours of Credited Service required per year to qualify for Benefit Credit.

Temporary Break

If you are not vested, and you fail to perform at least 300 hours of Credited Service in a Plan Year, you will suffer a one-year break in service.

Permanent Break

You will suffer a permanent break in service and lose all of your accrued years of Benefit Credit and Vesting Credits if you have a break in service which exceeds the longer of 5 years or the number of years of Vesting Credit you earned prior to the break. **No Plan credits accrued before a permanent break in service are counted for any purpose under the Plan.**

Example: Jose's Vesting and Breaks in Service				
Plan Year	Hours Worked	Vesting Credit	Total Cumulative Vesting Credits	Notes
1987	800	0.8	0.8	
1988	750	0.7	1.5	
1989	1,100	1	2.5	1st year of at least 1,000 hours of covered employment
1990	500	0.5	3	3 years of Vesting Credit
1991*	0	0	3	Temporary Break In Service
1992*	0	0	3	Temporary Break In Service
1993	1,001	1	4	Returned to covered employment before break equaled 3 Years (number of years of Vesting Credit)
1994	2,000	1	5	
1995	2,600	1	6	
1996	1,500	1	7	7 years of Vesting Credit, 5th year of at least 1,000 hours of covered employment; Jose was not vested because 5-year vesting did not exist as a Plan rule until 1999
1997**	99	0	7	Temporary Break In Service
1998	4	0	7	Temporary Break In Service
1999	67	0	7	Temporary Break In Service
2000	88	0	7	Temporary Break In Service
2001	55	0	7	Temporary Break In Service
2002	0	0	7	Temporary Break In Service
2003***	300	0.3	7.3	Returned to covered employment before break equaled 7 Years

**Jose had a temporary break in service in Plan Years 1991 and 1992. That 2-year break did not become a permanent break in service because it was less than his cumulative Vesting Credits of 3 years and because he came back to work within 5 years.*

***Jose had another 6-year break from 1997-2002. That break would have become permanent, and he would have forfeited all prior credits if he had not returned to covered employment and performed the required minimum of hours before December 31, 2003. Since he worked enough hours in 2003 to earn more Vesting Credits, his break ended in time, before the limit of 7 years (which was his cumulative Vesting Credit when he started this break).*

****By returning to covered employment and working 300 hours in 2003, Jose qualified for five-year vesting, which took effect January 1, 1999 and became vested since he had at least 1,000 hours of covered employment in five of his years of credited service.*

Exceptions to the Break in Service Rules

A Plan Year in which you failed to be credited with the minimum number of hours will not be counted against you toward a break in service if any of the following apply:

- You are continuously incapacitated by sickness or accident from working in the plumbing or pipefitting trade; or
- You are in qualifying full-time military service as defined in the Formal Plan Text; or
- You are employed within the geographical jurisdiction of U. A. Local No. 393 either by a public agency which does not contribute to this Plan, or by an Individual Employer who is signatory to a U. A. Local No. 393 Collective Bargaining Agreement which does not require contributions to the Plan; or
- Your failure to be credited with the required minimum number of hours is due to pregnancy, birth or adoption of a child, or need to care for the child during the period of time immediately following the birth or adoption.
- You were employed by Stanford University in the type of work covered by a Collective Bargaining Agreement for calendar years 2009 through 2011

VI. FACTORS THAT IMPACT THE AMOUNT OF YOUR PENSION

In addition to requiring fully vested status, there are various factors that determine the amount of your pension benefit. Please look for the following terms throughout this document and make sure you understand how they impact your specific situation. Please contact the Administration Office if you have any questions about these factors or how they may impact your retirement decision.

- Years of Benefit Credit
- Your Age on Your Retirement Date
- Your Spouses Age on Your Retirement Date (if applicable)
- Proration for working under a CBA with a lower contribution rate other than the Master Labor Agreement
- Reduction Factors for Early Retirement
- Reduction Factors for Survivor Options

VII. WHEN ARE YOU ELIGIBLE TO RECEIVE A BENEFIT FROM THE PLAN?

To receive benefits, you must be vested and meet the age and service requirements of one of the three types of retirement: Normal Retirement, Early Retirement, and Disability Retirement. All forms of retirement require that you **stop working (termination of employment in the Plumbing and Pipefitting Industry)** unless you reach your required beginning date (April 1st following the calendar year you reach age 72). You are not eligible for Early Retirement benefits if you worked in Industry Service for a non-signatory employer in any capacity. If you work for a general contractor that is signatory to another building trade collective bargaining agreement, you may be eligible for Early Retirement benefit if you meet the requirements in the Formal Plan Rules. Please contact the Administration Office for further details. In addition, no benefits are paid until you apply for a pension through the Administration Office. The requirements for each form of retirement benefit are explained in this section and summarized in the following chart.

For Employees First Working Under the Plan...	
... Prior To May 1, 2017	... On or After May 1, 2017
Normal Retirement	
<ul style="list-style-type: none"> Age 65 or if later, your age on the 5th anniversary of your participation, and retire under the Plan Vested 	
Unreduced Early Retirement	
<ul style="list-style-type: none"> Age 55 with 25 years of Benefit Credit Age 62 with 10 years of Vesting Credit 	<ul style="list-style-type: none"> Age 60 with 25 years of Benefit Credit
Reduced Early Retirement (reduction formulas listed in the following sections)	
<ul style="list-style-type: none"> Age 52 with 25 years of Benefit Credit Age 55 with 10 years of Vesting Credit 	<ul style="list-style-type: none"> Age 57 with 15 years of Benefit Credit Age 57 with 25 years of Benefit Credit
Disability Retirement (reduction formulas listed in the following sections)	
<ul style="list-style-type: none"> 10 years of Benefit Credit and disabled from the trade at any age 	

Normal Retirement Benefit

You are eligible for a Normal Retirement Benefit if:

- You reach Normal Retirement Age (age 65 or, if later, your age on the fifth anniversary of your participation) and retire under the Plan.
Participation before a permanent break in service and participation before a temporary break in service if you have not returned to work for an Employer and reestablished participation shall not be counted toward this five-year requirement.
- You reach your Required Beginning Date, which is generally April 1st of the calendar year following the calendar year you attain age 72, whether or not you are working.

Unreduced Early Retirement Benefit

You may receive unreduced Early Retirement benefits upon applying for benefits and attaining any of the following combinations of age and service, and you retire from the Plumbing and Pipefitting Industry.

- Age 55 with 25 years of Benefit Credit
 - First hour of Credited Service was earned **prior to** May 1, 2017.

- Age 62 with 10 years of Vesting Credit

(Note there are special rules if you were employed by a public agency in Santa Clara or San Benito County performing plumbing or pipefitting work. You should review Article VI, Section 2 of the Formal Plan Text and contact the Administration Office if this is your circumstance.)

- First hour of Credited Service was earned **prior to** May 1, 2017.
- Age 60 with 25 years of Benefit Credit
 - First hour of Credited Service was earned **on or after** May 1, 2017.

Reduced Early Retirement Benefit

You may receive Early Retirement benefits, which may be reduced as described below, upon applying for benefits and attaining any of the following combinations of age and service, and you retire from the Plumbing and Pipefitting Industry. Your monthly benefits will be reduced as follows:

- Age 55 with 10 years of Vesting Credit
 - First hour of Credited Service was **prior to** May 1, 2017
 - Your monthly benefits will be reduced 5/12 of 1% for each month, or part of a month, that your retirement precedes your **62nd** birthday.
- Age 57 with 15 years of Benefit Credit
 (Note there are special rules if you were employed by a public agency in Santa Clara or San Benito County performing plumbing or pipefitting work. You should review Article VI, Section 2 of the Formal Plan Text and contact the Administration Office if this is your circumstance.)
 - First hour of Credited Service was **on or after** May 1, 2017
 - Your monthly benefits will be reduced 1/2 of 1% for each month, or part of a month, that your retirement precedes your **65th** birthday.
- Age 52 with 25 years of Benefit Credit
 - First hour of Credited Service was **prior to** May 1, 2017
 - Your monthly benefits will be reduced 8/12 of 1% for each month, or part of a month, that your retirement precedes your **55th** birthday.
 - **Note:** *If you choose this benefit, you will not be permitted to take a lump sum distribution from the U.A. Local No. 393 Defined Contribution Plan until age 55.*
- Age 57 with 25 years of Benefit Credit
 - First hour of Credited Service was **on or after** May 1, 2017
 - Your monthly benefits will be reduced by 1/2 of 1% for each month, or part of a month, that your retirement precedes your **60th** birthday.

The examples in this chart show how a \$3,000 Single Life Annuity would be reduced for taking early retirement.

Monthly Accrued Benefit	\$3,000	\$3,000	\$3,000	\$3,000
First hour of Credited Service	Before May 1, 2017	After May 1, 2017	Before May 1, 2017	After May 1, 2017
Retirement Age	55	57	52	57
Years of Credits	10 Vesting Credits	15 Benefit Credits	25 Benefit Credits	25 Benefit Credits
Unreduced Age	62	65	55	60
Difference Between Retirement Age and Birthday (months)	84	96	36	36
Reduction Fraction	5/12 of 1%	1/2 of 1%	8/12 of 1%	1/2 of 1%
Reduction Percent	0.417%	0.500%	0.667%	0.500%
Total Reduction	35%	48%	24%	18%
Amount of Reduction	\$1,050	\$1,440	\$720	\$540
Reduced Monthly Benefit	\$1,950	\$1,560	\$2,280	\$2,460

Disability Retirement Benefit

You are eligible for a Disability Retirement if you are permanently incapacitated from working in covered employment in the Plumbing and Pipefitting Industry and you have ten (10) or more years of Benefit Credit.

- If your Disability Retirement begins **before** age 55, your benefits will be reduced by 5/12 of 1% for each month that your retirement precedes your 62nd birthday. For this reason, most participants who are eligible prefer to receive the long-term disability from the U. A. Local No. 393 Health and Welfare Plan before age

55. Note that if you are receiving a pension from this Plan, you will not be eligible for a long-term disability benefit from the U. A. Local No. 393 Health and Welfare Plan.

- If your Disability Retirement begins **at or after** age 55, your benefits will not be reduced from your Normal Retirement Benefit.

Early Retirement Benefit Converted to a Disability Retirement Benefit

If you have filed for Social Security Disability Benefits but have not received a determination on your application, you should inform the Administration Office of your pending Social Security application when you apply for early retirement. You will be permitted to change from an Early Retirement Benefit to a Disability Retirement Benefit if you provide a copy of your Social Security disability award within 90 days of receiving it.

You may also receive a lump sum payment equivalent to the difference between the monthly Early Retirement Benefits you have received, and the monthly Disability Retirement Benefits you would have received had you elected the Disability Retirement Benefit at the time you retired. An election to convert from an Early Retirement Benefit to a Disability Retirement Benefit cannot be revoked.

VIII. IN WHAT FORM WILL YOUR PENSION BENEFIT BE PAID?

Your pension benefit can be paid in one of several ways. There are, however, normal forms of payment for married and single participants. If you do not select an optional form, you will receive payment in the normal form that applies to you. Pension benefits under the Plan are paid monthly. Your benefits may be paid for your life alone, or for your life plus the life of your spouse, or a designated beneficiary. If you are married at retirement, your election is subject to your spouse's consent.

Study the following options carefully, because **once you have received your first electronic deposit of benefits or deposited or cashed your first benefit check, you cannot change your form of payment.**

Definition of Spouse

In view of the decision of the U.S. Supreme Court recognizing the legal validity of same-sex marriage, the definition of "Spouse" for purposes of the Plan means the person to whom the Participant is legally married whether that person is of the same or opposite sex. Please see the Definitions section for the full definition.

Standard Form for Married Participants: 50% Joint and Survivor Annuity

The normal form of payment for married participants is the **50% Joint and Survivor Annuity**. It has two parts. The first part is a monthly benefit for your life. The second part is a monthly benefit paid to your Spouse, in an amount equal to 50% of the benefits paid while you were alive. The amount of the benefit paid in your lifetime is reduced so that the combined benefits payable to you both during your joint lives are the actuarial equivalent of a single benefit payable to you during your lifetime alone.

This form of benefit will apply **automatically** if you are married on the effective date of your pension, **unless** you expressly reject it on the proper Plan form, prior to the time you receive your first benefit payment. Your rejection will not be effective unless accompanied by the **written consent of your spouse** on that form, duly acknowledged by a Notary Public or witnessed by a representative of the Plan.

Your spouse's consent must acknowledge the effect of the rejection and must consent to a specific optional payment form. If someone other than your spouse is designated as your beneficiary, your spouse must consent to the designation, which cannot be changed in the future without your spouse's consent. To be valid, your rejection and

consent must be filed within a specific time frame. Your spouse's rejection may be revoked at any time before your payments begin.

Once your pension is paid in the form of the 50% Joint and Survivor Annuity, it cannot be changed except through a Qualified Domestic Relations Order (QDRO) after your divorce (see If You Divorce below). The designated beneficiary may also not be changed

Amount of Reduction

The actual amount of this reduction depends on your age and your spouse's age on your retirement date (effective date of your pension). For more details, please refer to the applicable Relative Value Factors in the Exhibits section at the end of this document.

Example: Sam is retiring at age 65, when his wife is age 60. His benefit is paid as a 50% joint and surviving spouse pension without the pop-up option. Sam's normal monthly pension is \$2,000. Since Sam's wife is five years younger than he is, Sam's benefit will be 89.6% of that amount, or \$1,792 a month for his lifetime. When Sam dies, his wife will receive 50% of that amount, or \$896 a month, for the rest of her lifetime.

Your spouse must survive you by at least 30 days for the 50% joint and surviving spouse pension to be payable. The survivor portion of this benefit is only payable to the spouse you are married to on the effective date of your benefits.

If You Divorce

If your pension is paid in the form of the 50% Joint and Survivor Annuity, then the amount of your benefit is reduced as discussed above on the basis of your spouse's age. Unless there is a Qualified Domestic Relations Order waiving the beneficiary's rights:

- If you and your spouse get divorced after you go into pension pay status, your pension will remain permanently at the reduced amount; and
- Your pension will not be increased as a result of the divorce to the full amount you would have been entitled to receive under a single life pension; and
- The person who was your spouse at the time of your retirement will be entitled to receive survivor benefits under the 50% Joint and Survivor Annuity after your death even if you and your spouse get divorced.

However, your benefits will Pop-Up to a single life annuity subject to certain actuarial reductions after divorce from a spouse designated as beneficiary, provided the beneficiary's rights are waived in a Qualified Domestic Relations Order ("QDRO") satisfactory to the Board of Trustees.

If Your Spouse Dies Before You (Pop Up Option)

The Pop-Up option is a special feature available with the 50%, 75% and 100% Joint and Survivor Annuity Forms to protect you **in case your spouse dies first**. If you die first, your spouse will receive the 50%, 75%, or 100% Survivor Annuity, per your election. However, if your spouse dies first, your benefits "pop up" back to your Normal Retirement Benefit amount. To pay for this protection, your benefit is subject to further actuarial reduction.

This "pop-up" will occur if the following are true:

- You are receiving a 50%, 75% or 100% Joint and Survivor Annuity, and
- Your spouse dies before you but after the effective date of your pension.

The monthly amount payable to you will be increased as of the first of the month after your spouse's death. The increased monthly amount will be paid for the remainder of your lifetime, with no further survivor benefits payable when you die. If you would like this feature on your form of benefit, then you must select it on your application form when you retire.

Standard Form for Single Participants: Single Life Annuity

The Single Life Annuity is the Plan's **Normal Form of Benefit for Single Participants**. The Single Life Annuity provides you with equal monthly pension benefits for your lifetime alone. There is no reduction to your benefit to provide this form of pension payment. All other forms of pension are reduced to be the actuarial equivalent of this benefit.

If you are single at retirement, and elect this benefit, you may designate anyone to be your beneficiary. If you are married at retirement, you may not elect this option, or designate anyone other than your spouse to be your beneficiary, **unless** your spouse consents in writing and the consent is notarized or witnessed by a plan representative.

Post Retirement Plan Death Benefit

The Single Life Annuity has a guarantee of a minimum number of benefit payments. That guarantee is the number of months that it takes to equal the total amount of contributions that were made on your behalf. If you die before receiving the minimum number of benefit payments, then your designated beneficiary will receive the remainder of the guaranteed benefit payments upon your death. If the minimum number of guaranteed benefit payments has already been met, there would be no further benefits payable upon your death.

Example: Julia worked 2,000 hours per year for 5 years, at an hourly contribution rate of \$15.00 per hour. The total contributions made into the Plan on her behalf were \$150,000. Let's assume Julia's monthly accrued benefit is \$1,000. The guaranteed number of months would be $\$150,000 \div \$1,000 = 150$ months.

Optional Forms of Benefit Payment

Whether you are single or married, you may choose to not receive your benefit in the standard form that applies to you. In order for an optional form to become payable, you must properly elect it on the appropriate form provided by the Administration Office. Also, if you are married at retirement, you must formally reject the 50% Joint and Survivor Annuity, with the properly witnessed or notarized consent of your spouse. In each of these optional forms, the monthly benefit payable to you during your lifetime will be actuarially adjusted so that the combined benefits payable to you and to your spouse will be the actuarial equivalent of the Single Life Annuity. The form of pension payment which best meets your needs will depend upon your particular circumstances at retirement.

Either you or your spouse may waive or reinstate the 50% Joint and Survivor Annuity any number of times, up until you **received your first electronic deposit of benefits or have deposited or cashed your first benefit check**.

100% Joint and Survivor Annuity

This form of pension is similar to the 50% Joint and Survivor Annuity, except that it reduces your pension by a greater amount in return for providing 100% of the amount of your monthly benefit to your spouse for his or her lifetime following your death. The monthly benefit payable to you during your lifetime will be actuarially adjusted so that the combined benefits payable to you and to your spouse will be the actuarial equivalent of the Single Life Annuity. The survivor portion of this benefit is only payable to the spouse you are married to on the effective date of your pension benefits.

Unless there is a Qualified Domestic Relations Order waiving the beneficiary's rights, if you and your spouse divorce after the effective date of your pension, the amount payable to you will not be adjusted and your divorced spouse will be entitled to receive the survivor benefits.

However, your benefits will also Pop-Up to a Single Life Annuity subject to certain actuarial reductions after divorce from a spouse designated as beneficiary, provided the beneficiary's rights are waived in a Qualified Domestic Relations Order satisfactory to the Board of Trustees.

75% Joint and Survivor Annuity

This form of pension is similar to the 50% Joint and Survivor Annuity, except that it reduces your pension by a greater amount in return for providing 75% of the amount of your monthly benefit to your spouse for his or her lifetime following your death. The monthly benefit payable to you during your lifetime will be actuarially adjusted so that the combined benefits payable to you and to your spouse will be the actuarial equivalent of the Single Life Annuity. The survivor portion of this benefit is only payable to the spouse you are married to on the effective date of your pension benefits.

Unless there is a Qualified Domestic Relations Order waiving the beneficiary's rights, if you and your spouse divorce after the effective date of your pension, the amount payable to you will not be adjusted and your divorced spouse will be entitled to receive the survivor benefits.

However, your benefits will also Pop-Up to a Single Life Annuity subject to certain actuarial reductions after divorce from a spouse designated as beneficiary, provided the beneficiary's rights are waived in a Qualified Domestic Relations Order satisfactory to the Board of Trustees.

Optional Lump Sum

If you are age 55 or older when benefits begin, and you will receive a Single Life Annuity Benefit or you and your spouse will receive any type of Joint and Survivor Annuity Benefit, you may elect to receive a lump sum payment of up to \$3,500 upon retirement, provided that your benefits are valued at an amount greater than the amount you request. If you are married on your retirement date, you may make this election only with properly witnessed or notarized spousal consent. Your monthly benefits will be actuarially reduced to reflect the receipt of the lump sum benefit.

Distribution on Severance from Employment

Upon your termination of participation in the Plan, you may elect to receive a distribution of your entire accrued benefit in a single lump sum, provided the present value of your total accrued benefit is \$5,000 or less. The service credited to you for which you receive a distribution will thereafter be canceled.

IX. PROTECTING YOUR SURVIVORS IF YOU DIE BEFORE RETIREMENT

If you die **before becoming vested** in this Plan, you and your beneficiaries are not eligible for any benefits under this Plan. Please see the Vesting Credit section of this document for further details. The U.A. Local No. 393 Defined Contribution Plan has different rules. If you have an account balance in that plan, please refer to that plan's Summary Plan Description or call the Administration Office to discuss any benefits that may be payable to your beneficiaries under that plan.

If you have a **vested** interest in the U. A. Local No. 393 Defined Benefit Plan and die before retirement, your spouse or beneficiary may be eligible for one of the pre-retirement death benefits described below. Please contact the Administration Office to update or change your election at any time.

Qualified 50% Pre-Retirement Survivor Annuity

Under this option, your spouse is entitled to the Qualified 50% Pre-Retirement Survivor Annuity, similar to the benefits he or she would have received if you had lived to retire. To receive this benefit, your spouse must fill out the application form and submit it to the Administration Office at any time on or after the date you would have been eligible for Reduced or Unreduced Early Retirement. This benefit is subject to the same reductions which would have been applicable to your retirement. There is no additional reduction applied to your benefit for choosing this option.

Example 1: Your first hour of service under the Plan was before May 1, 2017. You and your spouse are the same age. You die at age 54 with an accrued benefit of \$3,000. Assuming you earned 25 years of Benefit Credit prior to your death, your spouse can elect to apply for the benefit in 1 year when you would have turned age 55 (she can also apply for a Reduced Early benefit immediately upon your death). Your accrued benefit of \$3,000 would be multiplied by the applicable Joint & Survivor factor of 94.9% = \$2,847.00. Your spouse is entitled to 50% of that which would be \$1,423.50. Your spouse's benefit would be \$1,423.50 for her lifetime. As you can see, her benefit is 50% of what you would have received subject to further reduction if she commences receiving benefits earlier at age 54.

Example 2: Your first hour of service under the Plan was before May 1, 2017. You and your spouse are the same age. You die at age 34 with an accrued benefit of \$1,000. Assuming you earned 10 years of Vesting Credit prior to your death, your spouse can elect to apply for the benefit in 28 years when you would have turned age 62 (she can also apply for a Reduced Early benefit when you would have turned age 55). Your accrued benefit of \$1,000 would be multiplied by the applicable Joint & Survivor factor of 93.0% = \$930.00. Your spouse is entitled to 50% of that which would be \$465.00. Your spouse's benefit would be \$465.00 for her lifetime. As you can see, this benefit will not provide a benefit to your spouse immediately upon your death. It is intended to provide a benefit in the future for when you would have retired.

50% Pre-Retirement Domestic Partner Survivor Annuity

Under this option, your Domestic Partner will receive a monthly annuity equal to 50% of the monthly benefit payable to you on the basis of your accrued benefits computed as of the date of your death. Your Domestic Partner must be designated as your beneficiary and must survive you by at least 30 days after your death. This benefit will become payable on approval of your Domestic partner's application, but in no event shall benefits commence after December 31st of the calendar year immediately following the calendar year in which you died.

100% Pre-Retirement Survivor Annuity

A married Participant may elect a 100% Pre-Retirement Survivor Annuity. This form of benefit pays a higher monthly benefit than would be payable under the Qualified 50% Pre-Retirement Survivor Annuity, but it is subject to the following rules:

1. You may elect this form of benefit only with your spouse as beneficiary, and only with your spouse's consent.
2. You may not elect this benefit if you are receiving Social Security Disability Benefits.
3. This election is not effective until 4 years from the date that you submit the election form to the Administration Office. During this 4-year waiting period, your spouse or beneficiary remains eligible for the Qualified 50% Pre-Retirement Survivor Annuity or the Optional Pre-Retirement Death Benefit.

4. A reduction is applied to either your monthly benefit at retirement or your survivor's benefits upon your death. The reduction does not apply during the 4-year waiting period before your election takes effect. After that, the reduction is:
 - a. $\frac{1}{4}$ of 1% for each year, and partial year, the election is in effect until age 55; and
 - b. $\frac{1}{2}$ of 1% for each year, and partial year, the election is in effect after age 55 until your retirement (or death prior to retirement).
5. If you live to retire, the reduction in 4. above is applied to your monthly benefit at retirement. This amount is subject to additional reductions if you retire early, and for the type of benefit you choose, just like any other pension.

Example: You and your spouse are the same age. You have 25 years of Benefit Credit and your first hour of credited service was before May 1, 2017. You elect and submit the 100% Pre-Retirement Survivor Annuity at exactly age 50. You die at exactly age 60 with an accrued benefit of \$3,000.

Ages 50-53: 4-year waiting period

Age 54: $0.0025 \times \$3,000 = \7.50 reduction

Ages 55-59: $0.0050 \times \$3,000 = \15 reduction per year for 5 years, total of \$75 reduction

Your accrued benefit of \$3,000 would be reduced by \$82.50 (\$7.50 + \$75) for an adjusted accrued benefit of \$2,917.50.

The adjusted accrued benefit is then multiplied by the 100% Joint & Survivor factor without pop-up of 87.9%. The surviving spouse's benefit would be \$2,564.48 for their lifetime.

If you live to retire at exactly age 60, and you elected a 100% qualified joint and survivor annuity your accrued benefit would also be reduced to \$2,917.50, and then further reduced by the 100% Joint and Survivor factor of 87.9%, to \$2,564.48. Because you have 25 years of Benefit Credit you are eligible for an Unreduced Early Retirement so your benefit is not further reduced.

Optional Pre-Retirement Death Benefit

If you have a vested interest in the Plan and die before retirement, and you have not elected the 100% Survivor Annuity, the Optional Pre-Retirement Death Benefit may be payable. This benefit is payable to the designated beneficiary of a single Participant, or to the spouse or designated beneficiary of a married Participant who has waived the Qualified 50% Pre-Retirement Survivor Annuity during his or her lifetime with written spousal consent. A domestic partner may also elect this benefit in place of the 50% Pre-Retirement Domestic Partner Survivor Annuity, even if you did not previously elect it. There is no additional reduction to your monthly pension if you elect this option. Your beneficiary has 2 payment options:

1. A monthly benefit that is the same amount as what your Normal Retirement Benefit would have been upon your retirement date, payable for as many months as it takes for your beneficiary to receive the total amount of contributions made to the Plan on your behalf.
2. The total amount of employer contributions in an actuarially equivalent lump sum.

Example: Jose dies at exactly age 55 with an accrued Normal Retirement Benefit of \$3,000/month and total employer contributions of \$200,000.

1. Monthly option: Jose's beneficiary has the option to receive \$3,000/month for 66 months, with a final payment of \$2,000 for the 67th month.

2. Lump sum option: Using the Plan's actuarial present value factors, Jose's beneficiary would receive a lump sum payment of \$162,120, which is the actuarial present value of \$200,000.

Designating Your Beneficiary

You should have a beneficiary designation form on file with the Administration Office. This form is available at your local union office, the Administration Office, and can also be obtained from the Plan's website. If you have not submitted a beneficiary designation form to the Administration Office, you should do so without delay.

You must complete the actual form provided by the Plan. No other form of designation may be used. Beneficiary forms used by the local, the Health and Welfare plan or by other organizations do not meet this requirement.

You may update your beneficiary designation at any time by filing a new beneficiary designation form with the Administration Office. For your new beneficiary to be eligible for benefits, your beneficiary designation form must be executed at least 30 days before your date of death.

You can, of course, designate an individual as a primary beneficiary or a contingent/successor beneficiary. You may also designate a trust as the beneficiary. If you wish to name a living trust as your primary beneficiary, your spouse must consent. If you are naming a trust as primary or contingent beneficiary, you must provide the complete Trust Instrument.

If you are married when you retire and you elect an optional form of payment, your spouse must give properly witnessed or notarized written consent to your designation of beneficiary. Your spouse must also give properly witnessed or notarized written consent to any change in that designation made at a later date. If this applies to your situation, ask the Administration Office for the spousal consent form when you request the beneficiary designation form.

A beneficiary who is eligible to receive benefits on behalf of a deceased participant may relinquish the right to such benefit by submitting a completed disclaimer of benefits that satisfies the requirements of applicable federal and state law.

What Happens to My Beneficiary Designation If I Divorce After Retirement?

Your designation of your spouse at retirement as beneficiary for the Post-Retirement Plan Death Benefit is not automatically revoked if you divorce, except as provided in a Qualified Domestic Relations Order. If your spouse was your designated beneficiary at retirement and you get divorced, your beneficiary designation of your former spouse does not automatically change as a result of the divorce. That is true even if there is a state law to the contrary in the state where you live because the Plan is governed by federal law.

Effective January 1, 1997, your benefits will Pop-Up to a Single Life Annuity subject to certain actuarial reductions after divorce from a spouse designated as beneficiary, provided the beneficiary's rights are waived, in a Qualified Domestic Relations Order satisfactory to the Board of Trustees.

Contingent Annuitant Option

Subject to spousal consent rules, you may designate someone other than your spouse to receive either a 50% or 100% Joint and Survivor Annuity, except that no person may be designated if the survivor benefit would be less than \$25 per month.

If you elect the Pop-Up Option for this form of benefit, your benefit is subject to the same additional reduction that applies to spousal Pop-Up Options. However, your benefits will "Pop-Up" to your Normal Retirement Benefit if your

designated beneficiary dies, or disclaims all survivor rights under the Plan, or a court order extinguishes the beneficiary's rights.

The 100% Joint and Survivor annuity is not available to you and your non-spouse beneficiary (for example your child) if the age difference between you and your non-spouse beneficiary is more than 10 years. Furthermore, if you begin receiving benefits prior to age 70, the age difference is adjusted further based on the number of years you are younger than age 70 on your retirement date.

Example: You want to retire at age 55 and designate your 30-year-old child as your beneficiary. Your actual age difference is 25 years. You are younger than age 70 by 15 years. The 25-year age difference is reduced by 15 years. The remaining age difference is 10 years. Since the difference is 10 years or less, you would be allowed to elect the 100% Joint and Survivor Annuity.

If you Die Without Naming a Beneficiary

If you die before retirement with no valid designation in effect, the benefits shall be payable to your spouse if you are married. If there is no spouse or properly designated beneficiary who survives you, your remaining account will be paid under the terms of the Plan to your living children, natural or adopted, if any; or if none, to your parents, if either are living; or if none, to your siblings, if any are living; or if none, to your estate.

If you die after retirement with no valid designation in effect for the Post-Retirement Plan Death Benefit, or if a beneficiary predeceases you or dies within 30 days of your death, any remaining benefits shall be payable to your other surviving designated beneficiary or beneficiaries, if any. If there is no spouse or properly designated beneficiary who survives you, your remaining account will be paid under the terms of the Plan to your living children, natural or adopted, if any; or if none, to your parents, if either are living; or if none, to your siblings, if any are living; or if none, to your estate.

X. CAN SOMEONE ELSE RECEIVE MY BENEFITS?

If you get separated or divorced, a court may order that a portion of your pension benefits shall be paid to an "alternate payee," which may be your spouse, former spouse, child or other dependent. The Plan must comply with such an order if it meets the legal requirements for a Qualified Domestic Relations Order (QDRO). The Plan may be required by a QDRO to make payments to an alternate payee after you have retired or even before you retire, once you become eligible to receive benefits. Generally, a QDRO is prepared by the attorneys to the parties to a divorce proceeding. It is approved by the court and submitted to the Plan for a determination of whether it is a QDRO. The Administration Office can provide you a copy of the plan's QDRO procedures and a sample order, free of charge.

The Internal Revenue Service may also attach a portion of your benefits in pay status to pay for your delinquent tax bills.

XII. WHAT IS RETIREMENT AND WHAT HAPPENS IF YOU RETURN TO WORK AFTER RETIREMENT?

The Plan pays benefits to eligible participants who have retired and apply for them. You will not be permitted to start your benefits if you do not have the intent to retire unless you have reached your Required Beginning Date.

To be retired you must have separated from all Industry Service of any kind with any and all employers and from all employment that would be disqualifying employment, including self-employment. Industry Service includes

employment in any capacity in the plumbing and pipefitting industry, whether by or in association with a union contractor or non-union contractor, or as a self-employed person, except for work listed below.

When you do retire from the plumbing and pipefitting industry, you may work in other industries and continue receiving your pension. However, if you return to work in the plumbing and pipefitting industry, your monthly benefit may be suspended depending on your age and the type of work you are doing. This rule applies from your retirement date, at any age, until April 1 of the calendar year following the calendar year in which you attain age 72 (Required Beginning Date), after which you may work and receive benefits at the same time. Further details are described in the Formal Plan Text.

Types of Industry Service where this rule does not apply:

- You may work as an inspector for a public agency (whether or not employed directly by the agency) in a position not involving the use of the tools of the trade; or
- You may work in a retail store in a position not involving the installation of plumbing facilities.
- You may qualify for Relief from Benefit Suspension as per that section of this SPD on page 27.

Consider the following rules carefully when you plan your retirement, because your right to a pension benefit may be adversely affected if you work in Industry Service after retirement.

Suspension of Benefit Before Age 65

Before you turn age 65, if you perform any Industry Service, except the permitted forms of employment, anywhere in the United States or Canada, your pension benefits will be suspended as soon as the Administration Office is informed that you have performed disqualifying employment.

If you have not taken a total or partial lump sum distribution (including any distribution which is not an annuity) from the U. A. Local No. 393 Defined Contribution Plan, and you return to covered employment within 12 months of your retirement, then your benefits will recommence when you cease to be employed in disqualifying employment. Note that if you accept employment by or as an employer not signatory to a Collective Bargaining Agreement, benefits shall resume only when you qualify for and begin Normal Retirement, or age 70, if earlier.

The same rule applies if you took Disability Retirement and returned to covered employment upon recovery (or an attempt at recovery) from your disability, or you work less than 40 hours per month as part of a rehabilitation program.

If your Early Retirement benefits are suspended because you worked for a signatory contractor, you may thereafter retire on a Disability Retirement if the Board of Trustees determines that you are permanently disabled from working in the Plumbing and Pipefitting Industry and you meet all other eligibility criteria.

In all other cases, if you return to Industry Service, your benefit will be suspended until you attain age 65 and apply for you Normal Retirement Benefit.

Suspension of Benefits After Age 65

If, after you retire, you return to work in the Plumbing and Pipefitting Industry after you are age 65, your monthly benefits will not be suspended as long as you work less than 40 hours in a month. However, your monthly benefits will be suspended for any month in which you work 40 or more hours in the Plumbing and Pipefitting Industry

For benefits earned on or **before** April 30, 2008, your pension benefits will be suspended one month for every month in which you return to Industry Service for 40 hours or more in the Plumbing and Pipefitting Industry anywhere in California.

For benefits earned on or **after** May 1, 2008, your pension benefits will be suspended one month for every month in which you return to Industry Service for 40 hours or more in the Plumbing and Pipefitting Industry anywhere in California or the geographic jurisdiction of a Related Plan with which this Plan had a reciprocity agreement in effect as of the date you retired.

Working after Age 72

Your monthly benefit is not subject to suspension as of the April 1st following the calendar year during which you reach age 72, regardless of whether or not you continue working in covered employment. Your benefit must also start by that Required Beginning Date even if you have not yet retired.

Example: John reached age 72 in September 2021. Even if he continues to work in covered employment, his monthly benefits would begin as of April 1, 2022.

Note that if you delay your benefit to age 72, federal law requires an actuarial increase to your benefit for the period from April 1 following the calendar year you turned 70.5. This adjustment will be automatically applied to your benefit.

From Normal Retirement age (generally age 65) until April 1 of the year following the calendar year you turn 70.5, there is a different actuarial increase that applies: Your monthly benefit will be actuarially increased for each complete calendar month for which benefits were not suspended.

Notice to the Administration Office of a Return to Work

The Formal Plan Rules require, among other things, that you notify the Administration Office **before** you work in Industry Service after retirement, or it will be presumed that you worked 40 hours in any month in which you performed any Industry Service. To avoid suspension of your benefits, if you are considering returning to employment which may be Industry Service, you may request an advance determination from the Administration Office whether the proposed employment will cause your benefits to be suspended. If you disagree with their determination, you may appeal that determination to the Board of Trustees, under the regular appeals procedures of the Plan.

Recovery of Overpayments

If your benefits should have been suspended because you were working in disqualifying employment, you must reimburse the Plan for these benefit payments. You may make the reimbursement in full by personal check made out to the U.A. Local No. 393 Defined Benefit Pension Plan, or the Fund will deduct the amount you owe from future benefit amounts. No more than 25% of your monthly benefit amount can be deducted, except that up to 100% of the first payment may be deducted when your benefits recommence.

Benefits Earned After Retirement

Any benefits which you earn after retirement shall be payable to you effective January 1 of the year following the year in which they were earned, subject to a reasonable delay for processing employer contribution reports for the entire year. If you had initially retired on a Reduced Early Retirement, any newly accrued benefits shall be subject to a reduction for age based on your age (and total Credited Service, if applicable) on the effective date of the newly earned benefits. You shall make a new election of form of benefit for each year's new accruals, until you have made

at least one election after your Normal Retirement Age, which election shall apply to all benefits subsequently earned.

Relief from Benefit Suspension

You may qualify for Relief from Benefit Suspension in the following circumstances:

1. If the Local Union has certified that there is a shortage of journeymen generally in classifications covered by the Collective Bargaining Agreements of the Local Union, the benefits of an Early Retiree who is duly dispatched by the Local Union shall be suspended only for those months in which he or she actually works 40 hours or more, provided the Early Retiree returns to retirement status immediately upon notification that the shortage no longer exists. During such certified shortage, the Local Union may employ up to two Early Retirees, whose benefits shall not be suspended during the certified shortage.
2. If a Retiree is (a) employed by a participating employer as a project manager, marketing representative, field superintendent, estimator, purchasing agent, expeditor, or detailer, or (b) employed by a participating employer for work in any position performed through December 31, 2023 only, or (c) employed by a signatory employer to the U.A. Local No. 447 Trust Funds for work performed through December 31, 2023 only, in any position that is a non-bargaining unit position, benefits will not be suspended if either:

(A) no participating employer has ever made contributions to the Plan on the Employee's behalf while working in such a position, and the employer does not make contributions to the Plan on behalf of other Employees in the same or similar position, or

(B) the Retiree worked not more than 80 hours in the work month, and he or she files a monthly report during the following month of the hours worked during the previous work month, and no contributions are made to any trust fund affiliated with the Local Union for hours worked by the Retiree during that work month.

If you are retired on a Disability Retirement, you may still qualify for relief from suspension under this rule. However, if the Disability Retirement benefit you are receiving is higher than the Reduced Early Retirement benefit you would be receiving if you were not disabled, the amount of your monthly pension calculated to be in excess of the Reduced Early Retirement benefit will be suspended.

3. If a Retiree is an owner of a company which is signatory to a collective bargaining agreement with the Local Union and regularly employs Employees in covered employment, benefits will not be suspended if the Retiree is no longer actively involved in the management of the company on a full-time basis, the Retiree performs no work of the type covered under the collective bargaining agreement, and the Retiree is over age 65 and does not receive wages or salary from the company for more than 80 hours of employment per month.
4. If a Retiree is employed as an instructor for the Loyd E. Williams Pipe Trades Training Center, benefits will not be suspended if the Retiree provides notification to the Administration Office prior to the acceptance of such employment and receives confirmation from the Administration Office that such employment will not result in suspension of his/her benefits.

5. If a Retiree is employed for an employer that is a general contractor and not signatory to a collective bargaining agreement with the United Association or any of its affiliated Local unions, benefits will not be suspended if the employer is signatory to a collective bargaining agreement for another building trade, and such employment is pursuant to an approved general contractor agreement.

Appeal of Benefit Suspension

If you receive a notification of suspension of benefits which you believe to be in error, you may request that the Trustees review the determination suspending your benefits. Your request must be made in writing within 60 days after you are notified of the suspension (or 180 days if the suspension involves a disability benefit).

To avoid suspension of your benefits, you may request an advance determination from the Administration Office whether the proposed employment will cause your benefits to be suspended. If you disagree with their determination, you may appeal that determination to the Board of Trustees, under the regular appeals procedures of the Plan.

The complete rules for suspension of benefits appear in Article XI of the Formal Plan Text and Amendment.

XIII. IS THERE A DATE BY WHICH MY PENSION OR OTHER BENEFITS MUST START?

The Effective Date of your monthly pension benefit payment, and the date by which the first payment is made, must be no later than the applicable Required Beginning Date. In addition, all single sum benefit payments must be fully distributed by the Required Beginning Date. It is important that you stay in touch with the Administration Office as these dates approach. A few months before you reach your Required Beginning Date, you should start the application process so that your benefits will start on time. If you do not commence receiving benefits as of your Required Beginning Date, you may owe an excise tax to the Internal Revenue Service.

Participants: Your Required Beginning Date as a participant is the April 1st of the calendar year following the calendar year during which you attain age 72, whether or not you are still working.

Surviving Spouses: Your Required Beginning Date as a surviving spouse beneficiary is December 31 of the calendar year in which the participant dies, or by the date on which the participant would have attained age 72, if later.

Non-Spouse Beneficiaries who are Persons: The Required Beginning Date for each non-spouse beneficiary of a deceased participant is December 31st of the calendar year immediately following the calendar year during which the Participant died if payable in an annuity. The benefit must commence or be paid in full by that date. This is sometimes referred to as the "one-year rule." If benefits are paid to the beneficiary in a form other than a life annuity, distribution of your entire interest shall be completed by the end of the calendar year which contains the 5th anniversary of the Employee's death.

Non-Spouse Designated Beneficiaries that are Trusts: If the Participant had affirmatively named while living his or her trust as the beneficiary and the trust is irrevocable or becomes irrevocable upon death, then the entire benefit payable to trust must be distributed no later than the December 31st of the calendar year containing the 5th anniversary of the date of the Participant's death (the "five-year rule"). But if the employee's surviving spouse is the sole beneficiary of an irrevocable Trust as demonstrated to the satisfaction of the Trustees, the rules for surviving spouses above shall apply.

XIV. HOW DO YOU APPLY FOR PENSION BENEFITS?

It is best to notify the Administration Office at least 90 days prior to your planned retirement date. You may submit a request for an application via e-mail through the Fund's website at www.ualocal393benefits.org or to staff@ualocal393benefits.org, or you may call or write the Administration Office.

The Administration Office will have records of your employment history with U.A. Local No. 393. If there is a gap in contributions of two years or more, you may be questioned about that time to ensure all your qualified work hours are counted properly. The Administration Office will make a determination of your eligibility for benefits and provide you with a detailed application to fill out. Your application will inform you about the amount of your benefit and the requirements for electing your form of benefit.

As required by federal law, the forms that you must use to elect your form benefit are also provided. You must complete and sign the appropriate forms and return them to the Administration Office in order to begin receiving your benefits. Depending on the form of your benefit, more than one election form may be required. One of the forms you receive will require your signature before a notary public.

Your completed application and election forms should be submitted to the Administration Office with all the applicable documentation listed below. You should send the completed documents to the Administration Office as soon as possible after you receive them so as not to delay the processing of your application.

A Retirement Planning Checklist

Advanced planning for your retirement can make applying for your benefits easier. Start by reviewing this checklist of documents you will need to obtain or provide to the Administration Office to process your application. You do not have to wait to provide these documents with your application:

1. Proof of your age, and proof of your spouse's age, if you are married. This is generally a copy of your (and your spouse's, if applicable) birth certificate.
2. Copy of your photo ID (and your spouse's, if applicable)
3. Copy of proof of marriage, if applicable. This is generally a copy of your marriage certificate.
4. Copy of divorce decrees and separation agreements, if applicable.
5. Original or certified copy of Qualified Domestic Relations Orders, if applicable (see page 24 for information on QDROs).
6. Military discharge papers, if applicable, to document eligibility for military service credit or the waiver of breaks in service due to periods of military service.
7. Social Security disability award letter, if you are applying for a disability pension, or evidence of application for same if you are applying for a contingent early retirement pension.
8. Proof of work history if you are applying for a benefit before age 65 and had a gap in covered employment of 2 or more years.

Pension Application Process

After you submit your application, the Administration Office will acknowledge receiving it and will review it within a few days for completeness. If the application is incomplete, you will be notified as soon as possible with a written request for additional information. Every effort is made to process all applications within 90 days after the application is received by the Administration Office. If an application is missing information for over 90 days, then the application will be denied. You will need to submit a new application to apply for benefits in the future.

After your application is submitted, you may defer your retirement effective date for up to 90 days from the receipt of the application if you notify the Administration Office in writing before your retirement effective date. If you would like to defer longer than 90 days, a new application will need to be submitted.

After your last day of employment, your employer will report your final hours of employment to the Administration Office. Once final hours have been received from your employer, the Administration Office will recalculate your benefit amount, if applicable, as soon as administratively possible.

Once your application has been approved, an approval letter will be mailed to you.

It is very important to update the Administration Office if your contact information or marital status changes, or if you return to work.

Your Pension Effective Date

Payments of benefits shall commence only after you qualify for retirement under Normal, Early or Disability Retirement, and applies therefor.

In accordance with federal pension law, your pension effective date is the ***later of***:

- The first of the month following the Plan's receipt of your completed application for benefits and required documents, or
- The first of the month you specify on your application for benefits, or
- The first of the month after the month in which you stop working.

Your effective date can be no earlier than the first of the month *after* the Administration Office receives your application for benefits.

Please do not delay submitting your application. It must be received no later than the month before your planned retirement date or your payments will not start at that time. If you don't have all of the required documents, send the documents you have along with your application. You may send the rest of the documents later.

As required by federal law, the Plan must supply you with information about your payment options during a period that begins no sooner than 180 days before your pension effective date. The actual payment of benefits may begin no sooner than 30 days after the Plan has supplied you with this information and with the election and consent to pay forms. However, you may elect to start the payment of benefits before the end of this 30-day period, but no sooner than seven days after the information about your options is provided.

You must complete your application and election forms and other necessary documents within the required timeframe as stated on your election forms (see above). Otherwise, you will have to begin the application process over and establish a new pension effective date. You may revoke any election at any time before payments begin.

You have the right to defer your pension effective date to a later date at any time before payments begin. However, your benefits may not be deferred later than the April 1st following the calendar year in which you reach age 72. This is referred to as your Required Beginning Date. If you have not submitted an application form by your Required Beginning Date, the Fund will commence benefit payments to you automatically in the form of the 50% joint and survivor spouse pension without pop up. Once benefit payments commence in that form, the form of benefit can

only be changed to the normal form for a single participant if you prove that you were not married on the Required Beginning Date.

Once you receive your first electronic deposit of benefits, you may not change your form of benefit or your beneficiary, except retirees who have elected the Single Life Annuity may name a new beneficiary for the guaranteed benefits, subject to spousal consent if applicable.

Applying for a Disability Pension

If you are applying for a disability pension, you must provide the Fund a complete copy of your disability award letter from the Social Security Administration. For Plan purposes, your date of disability is the first of the month following the date your disability begins, as determined by the Social Security Administration.

In most cases, your date of disability will be before your pension effective date. A pension under Disability Retirement is effective on the first day of the calendar month following the month of filing an application for retirement.

Early Retirement Benefit Converted to a Disability Retirement Benefit

If you have filed for social security disability benefits but have not received a determination on your application, you should inform the Administration Office of your pending social security application when you apply for early retirement. You will be permitted to change from an early retirement benefit to a disability benefit if you provide a copy of your social security disability award within 90 days of receiving it. You may also receive a lump sum payment equivalent to the difference between the monthly early retirement benefits you have received, and the monthly disability benefits you would have received had you elected disability retirement at the time you retired. An election to convert from an early retirement benefit to a disability retirement benefit cannot be revoked.

XV. YOUR RIGHT TO APPEAL

General Provisions

The Trustees are committed to the best possible administration of the Plan and employ qualified professionals to advise them on every aspect of Plan administration. Nevertheless, the Trustees have established certain procedures so that you can confirm that the records of your account are accurate.

- Every month, you are sent a Monthly Status Report, which states your amount of Career Hours in the bottom left corner. These hours represent your Pension Credited Hours.
- You are mailed a pension statement annually.
- The Administration Office will provide you complete information about your Credited Service upon request.
- You may request copies of Plan documents, and other information about your rights under the Plan, as explained in the section of this SPD entitled "Statement of ERISA Rights."

If you see an error concerning your rights under the Plan in your Monthly Status Report or in other information you receive from the Administration Office, contact the Administration Office immediately, so that your questions may be answered in a timely fashion.

Claims and Appeal Procedures for Retirement Benefits

Claim Denial Notice. If your claim for benefits under the Plan is denied, you will be notified of the denial within 90 days after your application has been received at the Administration Office. Under special circumstances as determined by the Board, the determination period may be extended an additional 90 days in which case notification will be sent to you within the initial 90 days after your application has been received at the

Administration Office. The notification will indicate the special circumstances which require an additional 90-day determination period and the date by which the Plan expects to come to a decision regarding your claim.

The notice of denial will contain the following information:

- The specific reason for the denial.
- Specific references to the Plan provisions upon which the denial is based.
- A description of any additional information which is necessary to perfect the claim and why this information is necessary.
- The steps that need to be taken if you wish to appeal your claim denial.
- A statement of your rights to bring a civil action against the Plan within 2 years following the denial of any appeal.

Appeal Procedures. If your claim for benefits has been denied, you may appeal the denial to the Board of Trustees. Your request for appeal must be submitted in writing at the Administration Office within 60 days after receipt of the notice of claim denial. Your appeal should state in clear words, each reason why you feel the claim denial was in error. You should also submit any documents supporting your appeal. You may also request to review any documents which are pertinent and relevant to your appeal.

A properly filed appeal will be reviewed by the Board of Trustees at its next regularly scheduled meeting. However, if the appeal is received within 30 days prior to such meeting, the appeal may be reviewed at the next meeting following the receipt of your appeal. If special circumstances require an extension of time, the Board of Trustees will render a decision at the third scheduled meeting following the receipt of your appeal. The Administration will notify you, in writing, before the beginning of the extension of the special circumstances and the date that the Board of Trustees will make its decision.

You will receive written notification of the benefit determination on an appeal no later than 5 calendar days after the benefit determination is made.

If your appeal is denied, then you will receive a written decision from the Board which contains the following information:

- The specific reason for the denial.
- Specific references to the Plan provisions upon which the denial is based.
- A statement that you are entitled to receive, upon request and free of charge, access to and copies of all documents, records and any other information relevant to your claim.
- A statement of your right to bring a civil action against the Plan within 2 years following the denial of your appeal.

The decision of the Board of Trustees on any matter within its discretion shall be final and binding on all parties.

Claim and Appeal Procedures for Disability Benefits

Claim Procedures. If your claim for disability benefits under the Plan is denied, you will be notified of the denial within 45 days after your application has been received at the Administration Office. The determination period may be extended for up to two additional 30 day periods due to matters beyond the Plan's control, in which case notification will be sent to you within the initial 45 days after your application has been received at the Administration Office. The notification will indicate the reason for the delay, the expected date of decision, any unresolved issues preventing a decision now, and any additional information the Plan needs to make the decision. You will then have up to 45 days to provide the specified information.

The notice of denial will contain the following information:

- A statement of the specific reason(s) for the denial;
- Reference to the specific Plan provision(s) on which the denial was based;
- Either a copy of the specific internal rules, guidelines, protocols, standards or similar criteria of the Plan relied upon in making the decision or, alternatively, a statement that such rules, guidelines, protocols, standards or other similar criteria of the Plan do not exist;
- A discussion of the decision including an explanation of the basis for disagreeing with or not following the views of:
 - a healthcare professional or vocation professional who treated or evaluated you;
 - the views of healthcare professional or vocation professional consulted by the Plan during the claim determination; or
 - any disability determination made by the Social Security Administration.
 - If the determination is based on a medical necessity or experimental treatment or similar exclusion or limit, either an explanation of the scientific or clinical judgment for the determination, applying the terms of the Plan to your medical circumstances, or a statement that such explanation will be provided free of charge upon request;
- A description of any additional information or documents that you will need to submit if you want the claim to be reconsidered, and an explanation of why that information is necessary;
- A statement that you are entitled to receive, upon request and free of charge, reasonable access to, and copies of, all documents, records, and other information relevant to your disability claim for benefits;
- A description of the Plan's appeal procedures. These will be found in a separate document, and must be followed in appealing the denial of benefits; and
- A statement of your rights to bring a civil action against the Plan within 2 years following the denial of your claim.

Appeal Procedures. If your claim for Disability benefits has been denied, you may appeal the denial to the Board of Trustees. Your request for appeal must be submitted in writing at the Administration Office within 180 days after receipt of the notice of disability claim denial. Your appeal should state in clear words, each reason why you feel the disability claim denial was in error. You should also submit any documents supporting your appeal. If you do not submit an appeal within 180 days of receiving a denial, you will be deemed to have waived any objection to the denial.

A properly filed appeal will be reviewed by the Board of Trustees at its next regularly scheduled meeting. However, if the appeal is received within 30 days prior to such meeting, the appeal may be reviewed at the next succeeding regular meeting following the receipt of your appeal. If special circumstances require an extension of time, the Board of Trustees will render a decision at the third scheduled meeting following the receipt of your appeal. The Administration Office will notify you, in writing, before the beginning of the extension of the special circumstances and the date that the Board of Trustees will make its decision.

You will receive written notification of the disability benefit determination on an appeal no later than 5 calendar days after the disability benefit determination is made.

If your disability appeal is denied, then you will receive a written decision from the Board which contains the following information:

- The specific reason(s) for the denial;

- Reference to the specific Plan provision(s) on which the denial is based;
- Either a copy of the specific internal rules, guidelines, protocols, standards or similar criteria of the Plan relied upon in making the decision or, alternatively, a statement that such rules, guidelines, protocols, standards or other similar criteria of the Plan do not exist;
- A discussion of the decision including an explanation of the basis for disagreeing with or not following the views of:
 - a healthcare professional or vocation professional who treated or evaluated you;
 - the views of healthcare professional or vocation professional consulted by the Plan during the claim determination; or
 - any disability determination made by the Social Security Administration.
 - If the determination is based on a medical necessity or experimental treatment or similar exclusion or limit, either an explanation of the scientific or clinical judgment for the determination, applying the terms of the Plan to your medical circumstances, or a statement that such explanation will be provided free of charge upon request;
- A statement that you may view and receive copies of documents, records or other information relevant to the claim, upon request and free of charge; and
- A statement of your rights to bring a civil action against the Plan within 2 years after your claim has been denied, including the calendar date on which the 2 year period expires for the claim.

The Administration Office shall automatically provide to you, free of charge, any new evidence or rationales (if any) in advance of the date on which the disability appeal determination is to be made in order to give you an opportunity to address the new evidence or rationale prior to the appeal date. You shall have the right to review and respond to new evidence or rationales in connection with your disability appeal during the review process.

The decision of the Board of Trustees on any matter within its discretion shall be final and binding on all parties.

Time Limits for All Appeals/Lawsuits against the Plan. Please be aware that if your appeal for benefits or disability benefits is denied, and you decide to bring a lawsuit against the Plan, you must bring your lawsuit within two years of the date your appeal is denied and on an individual basis. You may only bring an action against the Plan in the United States District Court for the Northern District of California. The determinations of the Board of Trustees are subject to judicial review only for abuse of discretion.

See Article XIII and Amendment 16 of the Formal Plan Text for the complete appeal procedures.

XVI. VALUABLE INFORMATION ONCE YOU ARE RECEIVING YOUR BENEFIT

Payments

Monthly pension benefits are paid at the beginning of the month for which they are due. If you receive your payment in the form of a check, it is mailed 4 business days before the end of the month for the next month. If you do not receive your check by the 10th of the month, you should contact the Administration Office. If you receive your payment by direct deposit, your benefit amount is available in your account on the first banking day of the month. You may contact your bank to verify that your money is in your account.

If you are not doing so already, you are strongly encouraged to consider having your monthly benefit check electronically deposited into your bank account. There are many advantages to direct deposit:

- It is safer — in fact, no direct deposit has ever been lost or stolen.

- It is faster — you don't have to worry about the weather, the mail, your health, or your schedule.
- It is easier — payment is made the same time every month, which gives you more control over your finances.

The direct deposit form is available on the Plan's website at **www.ualocal393benefits.org**. The form may also be obtained by contacting the Administration Office.

Tax Withholding and Reporting

Pension benefits paid from this Plan are taxable income. The Plan will withhold money for federal income taxes from your benefit as you direct on IRS Form W-4P. You may change your withholding at any time by completing a new Form W-4P. This form can be downloaded directly from the Plan's website at **www.ualocal393benefits.org**. You may also contact the Administration Office for a form.

As required by federal law, the Fund reports all pension benefits to the IRS as pension income and mails a Form 1099-R to all benefit recipients at the end of January for amounts paid in the previous year. If you do not receive your Form 1099-R by February 15th, you should contact the Administration Office for a replacement.

When You Die

A family member, representative, or friend should promptly contact the Administration Office when you or your beneficiary dies. A joint account holder who receives deposits into the account after the pensioner has died will be responsible to reimburse the Fund for those amounts, and the Fund is authorized to recover those amounts by all legal and equitable means.

After receiving a certified copy of the death certificate, the Plan will determine survivor benefits, if any, and advise your spouse or beneficiary in writing. If your spouse dies you should contact the Administration Office without delay. If you elected the Pop Up option at the time you retired, the Plan may provide for an adjustment to your monthly benefit payment.

Beneficiary

Benefits are payable for your lifetime. When you die, survivor benefits, if any, are payable to your surviving spouse or designated beneficiary on record, depending upon the payment form elected at retirement. It is important that an up-to-date beneficiary form be on file with the Administration Office. A change in beneficiary after retirement will not change the survivor under a joint and surviving spouse or joint and survivor form of payment. Beneficiary designation forms can be downloaded from the Plan's website at **www.ualocal393benefits.org**. You may also obtain a form by contacting the Administration Office. Please see page 23 for more information on beneficiaries.

Benefit Increases

The Plan does not provide or guarantee benefit increases.

Direct Rollovers

There are certain distributions from the Plan that you may choose to have "rolled over" to an individual retirement account or to another qualified retirement plan that accepts rollovers. This allows you to defer paying taxes on the amount of the distribution because you are not receiving it directly and are continuing to save it for retirement.

Eligible Rollover Distributions

Generally, an eligible rollover distribution is any distribution of all or a portion of the balance of a lump sum distribution made to a participant, a participant's surviving spouse, or a qualified alternate payee. The following Plan distributions are eligible rollover distributions:

- Small pension cash-outs to participants and surviving spouses.
- Survivor pension cash-outs to surviving spouses.
- Lump sum portion under partial lump sum payment option.
- Lump sum death benefits to surviving spouses.
- Lump sum death benefits to a spouse or a former spouse who is a qualified alternate payee.

If you are eligible to receive any of these benefits, you will receive a notice about the tax implications of eligible rollover distributions.

For distributions starting after December 31, 2008, a non-spouse beneficiary may elect to have all or a portion of an otherwise eligible rollover distribution paid directly to an inherited IRA to the extent permitted by law. Notices about rollovers are provided as part of the application process.

Overpayments

If you are paid an amount in error, or if you receive benefits to which you are not entitled, the Trustees have the right to recover from you the amount overpaid plus appropriate interest by all equitable and legal means. If you do not repay the amount you owe, the Trustees have the right to deduct the amount from your future payments.

XVII. GENERAL INFORMATION ABOUT YOUR PENSION PLAN

Plan Name and Type of Plan

This Plan is known as the U. A. Local No. 393 Defined Benefit Pension Plan (formerly the U. A. Local No. 393 Pension Plan) and is a multi-employer defined benefit plan. The Trust Fund is known as the U. A. Local No. 393 Pension Trust Fund.

Establishment of the Fund and Collective Bargaining Agreements

The Plan is maintained under Collective Bargaining Agreements between U. A. Local No. 393 and employer associations, including the Northern California Mechanical Contractors Association, Industrial Contractors (UMIC), Inc., Plumbing-Heating-Cooling Contractors Association of the Greater Bay Area, Inc., and Santa Clara Valley Contractors Association, as well as a number of Individual Employers not affiliated with any particular association. Copies of these Collective Bargaining Agreements may be obtained upon written request to the Administration Office or to the Local Union. A complete list of unions, employers, and employer associations maintaining the Plans is available upon written request to the Administration Office and is available for inspection by Participants and beneficiaries upon request and reasonable notice. Participants and beneficiaries may also request a statement whether a particular employer or union is a sponsor of the Plans, and if so, their address.

The Plan is funded entirely out of employer contributions, which are currently fixed by the Collective Bargaining Agreements at certain rates per hour for each hour worked by each of the Employees of the participating Individual Employers. The rates are subject to negotiation by the parties and to change from time to time as they may agree.

Administration

The Plan is administered directly by the Board of Trustees with the assistance of a contract manager, designated throughout this SPD as the Administration Office.

Source of Benefits

Benefits are provided from the Trust Fund's assets, which are accumulated under the provisions of the UA Local 393 Pension Trust Agreement. The assets are held in trust and used for the purpose of providing benefits to participants and beneficiaries in accordance with the Plan and for paying the reasonable administrative expenses of the Fund. Custody of the Fund's assets is with Matrix Trust, Broadridge Financial Solutions, Inc.

The assets of the Plan are held in trust under a written custodial agreement. The assets of the Plan are invested in diversified portfolios under the discretionary investment control of qualified investment managers selected from time to time by the Board of Trustees. In addition, a portion of the Plan is invested in a group annuity contract of New York Life Insurance Co.

Employer Identification Number (EIN)

The Employer Identification Number assigned to the Plan by the Internal Revenue Service is 94-6359772

Plan Number

002

Plan Year

The Plan Year extends from January 1 of each year through December 31 of the same year.

Requesting Information from the Fund Office

You are encouraged to contact the Administration Office in writing. Written responses are made to inquiries made in writing. Your inquiry concerning your pension status or other information should always include your:

- Full name (including middle initial and Sr., Jr., etc.)
- Social Security number (if you prefer, for your protection, you may provide only the last four digits)
- Complete home address and phone number.
- Marriage and divorce dates, as applicable, if not previously provided.

Please be as specific as possible and supply as much information as is available to you when making an inquiry. This will permit us to direct your inquiry to the person most able to respond to your concerns. When possible, provide a daytime telephone number and email address in case we need to contact you directly to request a clarification or additional information.

The Plan website and email address is available for you to submit your questions at www.ualocal393benefits.org or to staff@ualocal393benefits.org. The Fund's response to your e-mail inquiry will be made by e-mail, in the same timeframe as responses to all other inquiries.

Annual Statements

You will receive annual statements describing your status with the Plan, including hours worked, pension credits earned, and an estimate of your accrued benefit. You should immediately review these statements for accuracy and notify the Administration Office in writing as soon as possible if corrections are needed.

Annual statements are generally sent out to active participants by the end of April. If you do not receive one by mid-May, you should contact the Administration Office.

You may also view your Pension status through the last Plan Year online by visiting the Fund's website at **www.ualocal393benefits.org**. To maintain the confidentiality of your records you will need to register and set up an account to access this secured area of the website. Once you are registered, you will be able to view your Total Accrued Benefit, Pension History, Contributions Summary for the current Plan Year-to-date, and Contributions Summary by Month.

Amendments to the Plan

The Trustees have full discretion and authority to amend or modify the Plan or Trust Agreement, and any of their provisions, at any time.

Action of the Trustees

The Trustees have full discretion and authority over the standard of proof for any inquiry, claim, application for benefits, and over the application and interpretations of the Plan and Trust. No legal proceeding may be filed in any court or before any administrative agency against the Fund, Plan, or its Trustees, unless all review procedures with the Trustees have been exhausted. The determinations of the Board of Trustees are subject to judicial review only for abuse of discretion.

Selling, Assigning or Pledging Benefits

Benefits may not be transferred, sold, assigned, or pledged as security for a loan. Benefits are not subject to attachment or execution for the payment of any debt under any judgment or decree of a court or otherwise, except as provided in the Internal Revenue Code and applicable regulations. However, any benefits payable to an alternate payee (spouse, former spouse, child, or other dependent) under an order found by the Fund to be a Qualified Domestic Relations Order, will be honored by the Fund.

Benefit Increases to Retirees

There is no guarantee that pensions will be increased after retirement, even if the benefit rate is increased for active employees. The Trustees may provide for benefit increases to retirees, but they are not required to do so.

Plan Termination

It is intended that the Plan will continue indefinitely, but the Bargaining Parties (Union and Employer Associations) have the right under the Trust Agreement to terminate the Trust Fund at any time by executing an instrument in writing. If the obligation of all Individual Employers to make contributions terminates this Trust shall terminate and the remaining assets shall be used to pay pensions and reasonable expenses of the Plan. Instead of termination, the Trustees may choose to merge this Plan with another Plan or transfer the assets to a successor retirement plan.

Termination Insurance

Your pension benefits under this multiemployer plan are insured by the Pension Benefit Guaranty Corporation (PBGC), a federal insurance agency. A multiemployer plan is a collectively bargained pension arrangement involving two or more unrelated employers, usually in a common industry.

Under the multiemployer plan program, the PBGC provides financial assistance through loans to plans that are insolvent. A multiemployer plan is considered insolvent if the plan is unable to pay benefits (at least equal to the PBGC's guaranteed benefit limit) when due.

The maximum benefit that the PBGC guarantees is set by law. Under the multiemployer program, the PBGC guarantee equals a Participant's years of service multiplied by (1) 100% of the first \$11 of the monthly benefit accrual rate and (2) 75% of the next \$33. The PBGC's maximum guarantee limit is \$35.75 per month times a Participants' years of service. For example, the maximum annual guarantee for a retiree with 30 years of service would be \$12,870.

The PBGC guarantee generally covers: (1) Normal and early retirement benefits; (2) disability benefits if you become disabled before the plan becomes insolvent; and (3) certain benefits for survivors.

The PBGC guarantee generally does not cover: (1) Benefits greater than the maximum guaranteed amount set by law; (2) benefit increases and new benefits based on plan provisions that have been in place for fewer than five (5) years at the earlier of: (i) The date the plan terminates or (ii) the time the plan becomes insolvent; (3) benefits that are not vested because you have not worked long enough; (4) benefits for which you have not met all of the requirements at the time the plan becomes insolvent; and (5) non-pension benefits, such as health insurance, life insurance, certain death benefits, vacation pay, and severance pay.

For more information about the PBGC and the benefits it guarantees, ask your plan administrator or contact the PBGC's Technical Assistance Division, 1200 K Street NW, Suite 930, Washington, D.C. 20005-4026 or call 202-326-4000 (not a toll-free number). TTY/TDD users may call the federal relay service toll-free at 1-800-877-8339 and ask to be connected to 202-326-4000. Additional information about the PBGC's pension insurance program is available through the PBGC's website on the Internet at <http://www.pbgc.gov>.

Statement of Rights Under the Employee Retirement Income Security Act of 1974

As a Participant in the U. A. Local No. 393 Defined Benefit Pension Plan, you are entitled to certain rights and protections under the Employee Retirement Income Security Act of 1974 (ERISA). ERISA provides that all plan Participants shall be entitled to:

Receive Information About Your Plan and Benefits

- (a) Examine, without charge, at the plan administrator's office and at other specified locations, such as worksites and union halls, all documents governing the plan, including insurance contracts and collective bargaining agreements, and a copy of the latest annual report (Form 5500 Series) filed by the plan with the U.S. Department of Labor and available at the Public Disclosure Room of the Employee Benefits Security Administration.
- (b) Obtain, upon written request to the plan administrator, copies of documents governing the operation of the plan, including insurance contracts collective bargaining agreements, and copies of the latest annual report (Form 5500 Series) and updated summary plan description. The administrator may make a reasonable charge for the copies.
- (c) Receive a summary of the plan's annual financial report. The plan administrator is required by law to furnish each Participant with a copy of this summary annual report.
- (d) Obtain a statement telling you whether you have a right to receive a pension at normal retirement age (age 65) and if so, what your benefits would be at normal retirement age if you stop working under the plan now. If you do not have a right to a pension, the statement will tell you how many more years you have to work to get a right to a pension. This statement must be requested in writing and is not required to be given more than once every twelve (12) months. The plan must provide the statement free of charge.

- (e) Pursuant to the Pension Protection Act of 2006, obtain upon written request, copies of certain other documents that have been in the Plan administrator's possession for more than 30 days. Please contact the Plan administrator for more information. The administrator may make a reasonable charge for copies.
- (f) Obtain, upon written request, copies of any amortization extension request filed with the Secretary of Treasury and any determination thereof. The administrator may make a reasonable charge for copies.

Prudent Actions by Plan Fiduciaries

In addition to creating rights for plan Participants, ERISA imposes duties upon the people who are responsible for the operation of the employee benefit plan. The people who operate your plan, called "fiduciaries" of the plan, have a duty to do so prudently and in the interest of you and other plan Participants and beneficiaries. No one, including your employer, your union, or any other person, may fire you or otherwise discriminate against you in any way to prevent you from obtaining a pension benefit or exercising your rights under ERISA.

Enforce Your Rights

If your claim for a pension benefit is denied or ignored, in whole or in part, you have a right to know why this was done, to obtain copies of documents relating to the decision without charge, and to appeal any denial, all within certain time schedules.

Under ERISA, there are steps you can take to enforce the above rights. For instance, if you request a copy of plan documents or the latest annual report from the plan and do not receive them within 30 days, you may file suit in a Federal court. In such a case, the court may require the plan administrator to provide the materials and pay you up to \$110 a day until you receive the materials, unless the materials were not sent because of reasons beyond the control of the administrator.

The agent for service or process is the Fund Legal Counsel, and service may also be made upon any of the Trustees at their regular places of business or upon the Administration Office. The addresses and phone numbers of the individual Trustees, the Administration Office, and Legal Counsel are listed in the next section.

Assistance with Your Questions

If you have a claim for benefits which is denied or ignored, in whole or in part, you may file suit in a state or Federal court; however, your right to sue may be limited by the court if you have failed to exhaust your plan appeal rights. In addition, if you disagree with the plan's decision or lack thereof concerning the qualified status of a domestic relations order or a medical child support order, you may file suit in Federal court.

If it should happen that plan fiduciaries misuse the plan's money, or if you are discriminated against for asserting your rights, you may seek assistance from the U.S. Department of Labor, or you may file suit in a Federal court. The court will decide who should pay court costs and legal fees. If you are successful, the court may order the person you have sued to pay these costs and fees. If you lose, the court may order you to pay these costs and fees, for example, if it finds your claim is frivolous.

If you have any questions about your plan, you should contact the plan administrator. If you have any questions about this statement or about your rights under ERISA, or if you need assistance in obtaining documents from the plan administrator, you should contact either of the following organizations:

Employee Benefits Security Administration
U.S. Department of Labor, San Francisco Regional Office

71 Stevenson Street, Suite 915
P.O. Box 190250, San Francisco, CA 94105
(415) 975-4600

Division of Technical Assistance and Inquiries
Employee Benefits Security Administration, U.S. Department of Labor
200 Constitution Avenue N.W., Washington, D.C. 20210

You may also obtain certain publications about your rights and responsibilities under ERISA by calling the publications hotline of the Employee Benefits Security Administration.

Nothing in this Summary Plan Description is meant to interpret or extend or change in any way the provisions expressed in the Formal Plan Text. The Fund shall not be bound by the representations of any person, other than the Trustees, regarding participation in the Plan, eligibility for benefits under the Plan, the status of employees or employers under the Plan, or any other matters relating to the Pension Plan or Fund.

XVIII.

CONTACT INFORMATION

ADMINISTRATION OFFICE

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MEMBER ADVOCATE

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CERTIFIED PUBLIC ACCOUNTANT

Mr. Alex Miller
Ms. Melissa Evjenth
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1900 S. Norfolk Street, Suite 225
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XVIII. EXHIBITS

Schedule A

Contribution Rates

The below chart defines the contribution rates for U.A. Local No. 393 Journeymen Hours under the Master Labor Agreement. If an Employee worked under a collective bargaining agreement other than the Master Labor Agreement, the number of Hours with which an Employee shall be credited for purposes of Benefit Credit shall be adjusted proportionally to reflect the difference between the contribution rates of the two agreements.

Contribution Period	Contribution Per Hour
7/1956 to 6/1961	\$0.10
7/1961 to 6/1962	\$0.12
7/1962 to 6/1963	\$0.15
7/1963 to 10/1966	\$0.17
11/1966 to 4/1967	\$0.32
5/1967 to 4/1968	\$0.47
5/1968 to 4/1969	\$0.50
5/1969 to 4/1970	\$0.55
5/1970 to 4/1971	\$0.65
5/1971 to 4/1972	\$0.75
5/1972 to 4/1973	\$0.95
5/1973 to 4/1974	\$1.05
5/1974 to 4/1975	\$1.39
5/1975 to 6/1977	\$1.65
7/1977 to 6/1978	\$1.77
7/1978 to 12/1980	\$1.89
1/1981 to 6/1989	\$2.19
7/1989 to 6/1997	\$2.55
7/1997 to 6/1998	\$2.65
7/1998 to 6/2003	\$3.52
7/2003 to 6/2006	\$4.12
7/2006 to 8/2006	\$4.37
9/2006 to 6/2007	\$4.87
7/2007 to 6/2008	\$5.37
7/2008 to 6/2009	\$6.07
7/2009 to 6/2010	\$8.57
7/2010 to 12/2011	\$9.57
1/2012 to 6/2012	\$10.07
7/2012 to 6/2013	\$10.82
7/2013 to 6/2014	\$11.82
7/2014 to 6/2015	\$12.32
7/2015 to 6/2016	\$13.92
7/2016 to 6/2017	\$14.92
7/2017 to 6/2018	\$15.92
7/2018 to 6/2019	\$16.42
7/2019 to 6/2020	\$16.92
7/2020 to 6/2021	\$17.42
7/2021 to 6/2022	\$17.97

Schedule B

Relative Value Factors

The relative value factors are listed on the following pages. These factors are used to adjust your benefit amount (increase or decrease) to be the actuarial equivalent of the single life annuity when you chose a form of benefit other than the single life annuity. There are six different tables, each broken out by your age on the left side, and the difference in age (older or younger) between you and your spouse. The factors differ depending on

- your age,
- your spouse's age,
- the type of survivor benefit you chose, and
- whether or not you select the pop-up option.

Example: If your single life annuity benefit is estimated to be \$2,000 a month for life, and your relative value factor is 99%, then your benefit estimate will decrease to \$1,980 a month. ($\$2,000 \times 0.99$).

Retirement Estimates

You can request a retirement estimate at any time by contacting the Administration Office. The relative value factors will be used to estimate your monthly benefit amount. Please make sure you have the following information available:

- Social Security Number
- Date or age you are thinking of retiring
- If married, your spouse's date of birth
- If you have prior marriages, judgments of dissolution (complete with any attachments), marital settlement agreements, an/or Qualified Domestic Relations Orders (QDROs).

Sample Joint & Survivor Factors

In the below examples you can see how the 50%, 75% or 100% Joint and Survivor Annuities are reduced. These options provide a monthly benefit for your lifetime and your spouse's lifetime. Your benefit amount is reduced so that the combined benefits payable to you and your spouse are equivalent to a single benefit payable to you during your lifetime alone. The amount of the reduction depends on your age, your spouse's age, and which option you elect. The survivor benefit payable to your spouse would be 50%, 75%, or 100% of the benefit you received, per your election.

The examples also illustrate the optional pop-up feature. The Pop-Up Options are Joint and Survivor Annuities with a special feature to protect you in case your spouse dies first. If you die first, your spouse will receive the 50%, 75% or 100% Survivor Annuity, per your election. However, if your spouse dies first, your benefits "Pop-Up" to the Single Life Annuity amount. The reduction to your benefit for a Pop-Up option will be greater than a regular Joint & Survivor Annuity.

Example 1: Based on Member's Age of 55 and Accrued Pension of \$3,000									
	<i>Spouse 5 Years Younger</i>			<i>Spouse Same Age</i>			<i>Spouse 5 Years Older</i>		
	Re- duction	Member Benefit	Survivor Benefit	Re- duction	Member Benefit	Survivor Benefit	Re- duction	Member Benefit	Survivor Benefit
50% J&S	93.3%	\$2,799	\$1,399.50	94.9%	\$2,847	\$1,423.50	96.3%	\$2,889	\$1,444.50
50% J&S Pop-Up	92.3%	\$2,769	\$1,384.50	93.9%	\$2,817	\$1,408.50	95.3%	\$2,859	\$1,429.50
75% J&S	90.3%	\$2,709	\$2,031.75	92.5%	\$2,775	\$2,081.25	94.5%	\$2,835	\$2,126.25
75% J&S Pop-Up	88.8%	\$2,664	\$1,998.00	91.0%	\$2,730	\$2,047.50	93.0%	\$2,790	\$2,092.50
100% J&S	87.5%	\$2,625	\$2,625	90.2%	\$2,706	\$2,706	92.8%	\$2,784	\$2,784
100% J&S Pop-Up	85.5%	\$2,565	\$2,565	88.2%	\$2,646	\$2,646	90.8%	\$2,724	\$2,724
Example 2: Based on Member's Age of 62 and Accrued Pension of \$4,000									
	<i>Spouse 5 Years Younger</i>			<i>Spouse Same Age</i>			<i>Spouse 5 Years Older</i>		
	Re- duction	Member Benefit	Survivor Benefit	Re- duction	Member Benefit	Survivor Benefit	Re- duction	Member Benefit	Survivor Benefit
50% J&S	90.8%	\$3,632	\$1,816	93.0%	\$3,720	\$1,860	95.0%	\$3,800	\$1,900
50% J&S Pop-Up	89.8%	\$3,592	\$1,796	92.0%	\$3,680	\$1,840	94.0%	\$3,760	\$1,880
75% J&S	86.8%	\$3,472	\$2,604	89.9%	\$3,596	\$2,697	92.7%	\$3,708	\$2,781
75% J&S Pop-Up	85.3%	\$3,412	\$2,559	88.4%	\$3,536	\$2,652	91.2%	\$3,648	\$2,736
100% J&S	83.1%	\$3,324	\$3,324	86.9%	\$3,476	\$3,476	90.5%	\$3,620	\$3,620
100% J&S Pop-Up	81.10%	\$3,244	\$3,244	84.9%	\$3,396	\$3,396	88.5%	\$3,540	\$3,540

1 Relative Value Factors For 50% Joint & Survivor without Pop-Up

Participant's Age	Years by which the Spouse is Older than the Participant									
	20	19	18	17	16	15	14	13	12	11
30	99.5%	99.4%	99.4%	99.4%	99.3%	99.3%	99.2%	99.2%	99.1%	99.1%
31	99.5%	99.4%	99.4%	99.3%	99.3%	99.3%	99.2%	99.2%	99.1%	99.0%
32	99.4%	99.4%	99.4%	99.3%	99.3%	99.2%	99.2%	99.1%	99.1%	99.0%
33	99.4%	99.4%	99.3%	99.3%	99.3%	99.2%	99.1%	99.1%	99.0%	99.0%
34	99.4%	99.4%	99.3%	99.3%	99.2%	99.2%	99.1%	99.1%	99.0%	98.9%
35	99.4%	99.4%	99.3%	99.3%	99.2%	99.1%	99.1%	99.0%	99.0%	98.9%
36	99.4%	99.3%	99.3%	99.2%	99.2%	99.1%	99.1%	99.0%	98.9%	98.8%
37	99.4%	99.3%	99.3%	99.2%	99.2%	99.1%	99.0%	99.0%	98.9%	98.8%
38	99.4%	99.3%	99.3%	99.2%	99.1%	99.1%	99.0%	98.9%	98.8%	98.8%
39	99.4%	99.3%	99.2%	99.2%	99.1%	99.0%	99.0%	98.9%	98.8%	98.7%
40	99.3%	99.3%	99.2%	99.2%	99.1%	99.0%	98.9%	98.9%	98.8%	98.7%
41	99.3%	99.3%	99.2%	99.1%	99.1%	99.0%	98.9%	98.8%	98.7%	98.6%
42	99.3%	99.2%	99.2%	99.1%	99.0%	99.0%	98.9%	98.8%	98.7%	98.6%
43	99.3%	99.2%	99.2%	99.1%	99.0%	98.9%	98.8%	98.7%	98.6%	98.5%
44	99.3%	99.2%	99.1%	99.1%	99.0%	98.9%	98.8%	98.7%	98.6%	98.5%
45	99.3%	99.2%	99.1%	99.0%	98.9%	98.8%	98.7%	98.6%	98.5%	98.4%
46	99.2%	99.2%	99.1%	99.0%	98.9%	98.8%	98.7%	98.6%	98.5%	98.4%
47	99.2%	99.1%	99.1%	99.0%	98.9%	98.8%	98.7%	98.5%	98.4%	98.3%
48	99.2%	99.1%	99.0%	98.9%	98.8%	98.7%	98.6%	98.5%	98.4%	98.2%
49	99.2%	99.1%	99.0%	98.9%	98.8%	98.7%	98.6%	98.4%	98.3%	98.2%
50	99.1%	99.1%	99.0%	98.9%	98.7%	98.6%	98.5%	98.4%	98.2%	98.1%
51	99.1%	99.0%	98.9%	98.8%	98.7%	98.6%	98.4%	98.3%	98.2%	98.0%
52	99.1%	99.0%	98.9%	98.8%	98.7%	98.5%	98.4%	98.2%	98.1%	97.9%
53	99.1%	99.0%	98.8%	98.7%	98.6%	98.5%	98.3%	98.2%	98.0%	97.8%
54	99.0%	98.9%	98.8%	98.7%	98.5%	98.4%	98.2%	98.1%	97.9%	97.7%
55	99.0%	98.9%	98.8%	98.6%	98.5%	98.3%	98.2%	98.0%	97.8%	97.6%
56	99.0%	98.9%	98.7%	98.6%	98.4%	98.3%	98.1%	97.9%	97.7%	97.5%
57	98.9%	98.8%	98.7%	98.5%	98.4%	98.2%	98.0%	97.9%	97.7%	97.4%
58	98.9%	98.8%	98.7%	98.5%	98.3%	98.2%	98.0%	97.8%	97.6%	97.3%
59	98.9%	98.8%	98.6%	98.5%	98.3%	98.1%	97.9%	97.7%	97.5%	97.2%
60	98.9%	98.7%	98.6%	98.4%	98.2%	98.1%	97.9%	97.6%	97.4%	97.2%
61	98.9%	98.7%	98.6%	98.4%	98.2%	98.0%	97.8%	97.6%	97.3%	97.1%
62	98.8%	98.7%	98.5%	98.4%	98.2%	98.0%	97.7%	97.5%	97.2%	97.0%
63	98.8%	98.7%	98.5%	98.3%	98.1%	97.9%	97.7%	97.4%	97.2%	96.9%
64	98.8%	98.7%	98.5%	98.3%	98.1%	97.9%	97.6%	97.4%	97.1%	96.8%
65	98.8%	98.7%	98.5%	98.3%	98.1%	97.9%	97.6%	97.3%	97.1%	96.8%
66	98.8%	98.6%	98.5%	98.3%	98.1%	97.8%	97.6%	97.3%	97.0%	96.7%
67	98.8%	98.6%	98.5%	98.3%	98.1%	97.8%	97.6%	97.3%	97.0%	96.6%
68	98.8%	98.6%	98.5%	98.3%	98.1%	97.8%	97.6%	97.3%	96.9%	96.6%
69	98.8%	98.6%	98.5%	98.3%	98.1%	97.8%	97.5%	97.2%	96.9%	96.6%
70	98.8%	98.6%	98.5%	98.3%	98.0%	97.8%	97.5%	97.2%	96.9%	96.5%
71	98.8%	98.6%	98.4%	98.3%	98.0%	97.8%	97.5%	97.2%	96.8%	96.5%
72	98.7%	98.6%	98.4%	98.2%	98.0%	97.8%	97.5%	97.2%	96.8%	96.4%
73	98.7%	98.5%	98.4%	98.2%	98.0%	97.7%	97.4%	97.1%	96.8%	96.4%
74	98.6%	98.5%	98.3%	98.1%	97.9%	97.7%	97.4%	97.1%	96.7%	96.3%
75	98.6%	98.4%	98.3%	98.1%	97.9%	97.6%	97.4%	97.0%	96.7%	96.3%

1 Relative Value Factors For 50% Joint & Survivor without Pop-Up

Participant's Age	Years by which the Spouse is Older than the Participant										
	10	9	8	7	6	5	4	3	2	1	0
30	99.0%	99.0%	98.9%	98.8%	98.8%	98.7%	98.6%	98.6%	98.5%	98.4%	98.3%
31	99.0%	98.9%	98.9%	98.8%	98.7%	98.6%	98.6%	98.5%	98.4%	98.3%	98.3%
32	98.9%	98.9%	98.8%	98.7%	98.7%	98.6%	98.5%	98.4%	98.3%	98.3%	98.2%
33	98.9%	98.8%	98.8%	98.7%	98.6%	98.5%	98.4%	98.4%	98.3%	98.2%	98.1%
34	98.9%	98.8%	98.7%	98.6%	98.5%	98.5%	98.4%	98.3%	98.2%	98.1%	98.0%
35	98.8%	98.7%	98.7%	98.6%	98.5%	98.4%	98.3%	98.2%	98.1%	98.0%	97.9%
36	98.8%	98.7%	98.6%	98.5%	98.4%	98.3%	98.2%	98.1%	98.0%	97.9%	97.8%
37	98.7%	98.6%	98.6%	98.5%	98.4%	98.3%	98.2%	98.1%	98.0%	97.8%	97.7%
38	98.7%	98.6%	98.5%	98.4%	98.3%	98.2%	98.1%	98.0%	97.9%	97.8%	97.6%
39	98.6%	98.5%	98.4%	98.3%	98.2%	98.1%	98.0%	97.9%	97.8%	97.7%	97.5%
40	98.6%	98.5%	98.4%	98.3%	98.2%	98.0%	97.9%	97.8%	97.7%	97.6%	97.4%
41	98.5%	98.4%	98.3%	98.2%	98.1%	98.0%	97.8%	97.7%	97.6%	97.4%	97.3%
42	98.5%	98.4%	98.2%	98.1%	98.0%	97.9%	97.7%	97.6%	97.5%	97.3%	97.2%
43	98.4%	98.3%	98.2%	98.1%	97.9%	97.8%	97.7%	97.5%	97.4%	97.2%	97.1%
44	98.4%	98.2%	98.1%	98.0%	97.8%	97.7%	97.5%	97.4%	97.2%	97.1%	96.9%
45	98.3%	98.2%	98.0%	97.9%	97.7%	97.6%	97.4%	97.3%	97.1%	97.0%	96.8%
46	98.2%	98.1%	98.0%	97.8%	97.7%	97.5%	97.3%	97.2%	97.0%	96.8%	96.6%
47	98.2%	98.0%	97.9%	97.7%	97.6%	97.4%	97.2%	97.0%	96.9%	96.7%	96.5%
48	98.1%	97.9%	97.8%	97.6%	97.4%	97.3%	97.1%	96.9%	96.7%	96.5%	96.3%
49	98.0%	97.8%	97.7%	97.5%	97.3%	97.1%	97.0%	96.8%	96.6%	96.3%	96.1%
50	97.9%	97.8%	97.6%	97.4%	97.2%	97.0%	96.8%	96.6%	96.4%	96.2%	95.9%
51	97.8%	97.7%	97.5%	97.3%	97.1%	96.9%	96.7%	96.4%	96.2%	96.0%	95.8%
52	97.7%	97.6%	97.4%	97.2%	97.0%	96.7%	96.5%	96.3%	96.0%	95.8%	95.5%
53	97.6%	97.4%	97.2%	97.0%	96.8%	96.6%	96.3%	96.1%	95.9%	95.6%	95.3%
54	97.5%	97.3%	97.1%	96.9%	96.7%	96.4%	96.2%	95.9%	95.7%	95.4%	95.1%
55	97.4%	97.2%	97.0%	96.8%	96.5%	96.3%	96.0%	95.7%	95.4%	95.2%	94.9%
56	97.3%	97.1%	96.9%	96.6%	96.4%	96.1%	95.8%	95.5%	95.2%	94.9%	94.6%
57	97.2%	97.0%	96.7%	96.5%	96.2%	95.9%	95.6%	95.3%	95.0%	94.7%	94.4%
58	97.1%	96.9%	96.6%	96.3%	96.0%	95.7%	95.4%	95.1%	94.8%	94.5%	94.1%
59	97.0%	96.7%	96.5%	96.2%	95.9%	95.6%	95.2%	94.9%	94.6%	94.2%	93.8%
60	96.9%	96.6%	96.3%	96.0%	95.7%	95.4%	95.0%	94.7%	94.3%	94.0%	93.6%
61	96.8%	96.5%	96.2%	95.9%	95.5%	95.2%	94.8%	94.5%	94.1%	93.7%	93.3%
62	96.7%	96.4%	96.1%	95.7%	95.4%	95.0%	94.6%	94.3%	93.8%	93.4%	93.0%
63	96.6%	96.3%	95.9%	95.6%	95.2%	94.8%	94.4%	94.0%	93.6%	93.2%	92.7%
64	96.5%	96.2%	95.8%	95.5%	95.1%	94.7%	94.2%	93.8%	93.4%	92.9%	92.4%
65	96.4%	96.1%	95.7%	95.3%	94.9%	94.5%	94.1%	93.6%	93.1%	92.6%	92.2%
66	96.4%	96.0%	95.6%	95.2%	94.8%	94.3%	93.9%	93.4%	92.9%	92.4%	91.9%
67	96.3%	95.9%	95.5%	95.1%	94.6%	94.2%	93.7%	93.2%	92.7%	92.1%	91.6%
68	96.2%	95.8%	95.4%	95.0%	94.5%	94.0%	93.5%	93.0%	92.4%	91.9%	91.3%
69	96.2%	95.8%	95.3%	94.9%	94.4%	93.9%	93.3%	92.8%	92.2%	91.6%	91.0%
70	96.1%	95.7%	95.3%	94.8%	94.3%	93.7%	93.2%	92.6%	92.0%	91.4%	90.7%
71	96.1%	95.6%	95.2%	94.7%	94.1%	93.6%	93.0%	92.4%	91.7%	91.1%	90.4%
72	96.0%	95.6%	95.1%	94.6%	94.0%	93.4%	92.8%	92.2%	91.5%	90.8%	90.1%
73	96.0%	95.5%	95.0%	94.4%	93.9%	93.3%	92.6%	91.9%	91.2%	90.5%	89.8%
74	95.9%	95.4%	94.9%	94.3%	93.7%	93.1%	92.4%	91.7%	91.0%	90.2%	89.4%
75	95.8%	95.3%	94.8%	94.2%	93.6%	92.9%	92.2%	91.5%	90.7%	89.9%	89.1%

1 Relative Value Factors For 50% Joint & Survivor without Pop-Up

Participant's Age	Years by which the Spouse is Younger than the Participant									
	1	2	3	4	5	6	7	8	9	10
30	98.3%	98.2%	98.1%	98.0%	97.9%	97.8%	97.8%	97.7%	97.6%	97.5%
31	98.2%	98.1%	98.0%	97.9%	97.8%	97.7%	97.7%	97.6%	97.5%	97.4%
32	98.1%	98.0%	97.9%	97.8%	97.7%	97.6%	97.5%	97.5%	97.4%	97.3%
33	98.0%	97.9%	97.8%	97.7%	97.6%	97.5%	97.4%	97.3%	97.2%	97.1%
34	97.9%	97.8%	97.7%	97.6%	97.5%	97.4%	97.3%	97.2%	97.1%	97.0%
35	97.8%	97.7%	97.6%	97.5%	97.4%	97.3%	97.2%	97.1%	97.0%	96.9%
36	97.7%	97.6%	97.5%	97.4%	97.3%	97.2%	97.1%	96.9%	96.8%	96.7%
37	97.6%	97.5%	97.4%	97.3%	97.2%	97.0%	96.9%	96.8%	96.7%	96.6%
38	97.5%	97.4%	97.3%	97.2%	97.0%	96.9%	96.8%	96.7%	96.5%	96.4%
39	97.4%	97.3%	97.2%	97.0%	96.9%	96.8%	96.6%	96.5%	96.4%	96.2%
40	97.3%	97.2%	97.0%	96.9%	96.7%	96.6%	96.5%	96.3%	96.2%	96.1%
41	97.2%	97.0%	96.9%	96.7%	96.6%	96.5%	96.3%	96.2%	96.0%	95.9%
42	97.0%	96.9%	96.7%	96.6%	96.4%	96.3%	96.1%	96.0%	95.8%	95.7%
43	96.9%	96.7%	96.6%	96.4%	96.3%	96.1%	95.9%	95.8%	95.6%	95.5%
44	96.8%	96.6%	96.4%	96.3%	96.1%	95.9%	95.7%	95.6%	95.4%	95.2%
45	96.6%	96.4%	96.3%	96.1%	95.9%	95.7%	95.5%	95.4%	95.2%	95.0%
46	96.5%	96.3%	96.1%	95.9%	95.7%	95.5%	95.3%	95.1%	95.0%	94.8%
47	96.3%	96.1%	95.9%	95.7%	95.5%	95.3%	95.1%	94.9%	94.7%	94.5%
48	96.1%	95.9%	95.7%	95.5%	95.3%	95.1%	94.9%	94.6%	94.4%	94.2%
49	95.9%	95.7%	95.5%	95.3%	95.0%	94.8%	94.6%	94.4%	94.2%	93.9%
50	95.7%	95.5%	95.3%	95.0%	94.8%	94.6%	94.3%	94.1%	93.9%	93.6%
51	95.5%	95.3%	95.0%	94.8%	94.5%	94.3%	94.0%	93.8%	93.5%	93.3%
52	95.3%	95.0%	94.8%	94.5%	94.3%	94.0%	93.7%	93.5%	93.2%	93.0%
53	95.1%	94.8%	94.5%	94.2%	94.0%	93.7%	93.4%	93.1%	92.9%	92.6%
54	94.8%	94.5%	94.2%	93.9%	93.7%	93.4%	93.1%	92.8%	92.5%	92.2%
55	94.6%	94.3%	94.0%	93.6%	93.3%	93.0%	92.7%	92.4%	92.1%	91.8%
56	94.3%	94.0%	93.7%	93.3%	93.0%	92.7%	92.4%	92.0%	91.7%	91.4%
57	94.0%	93.7%	93.4%	93.0%	92.7%	92.3%	92.0%	91.6%	91.3%	91.0%
58	93.8%	93.4%	93.0%	92.7%	92.3%	91.9%	91.6%	91.2%	90.9%	90.5%
59	93.5%	93.1%	92.7%	92.3%	92.0%	91.6%	91.2%	90.8%	90.4%	90.0%
60	93.2%	92.8%	92.4%	92.0%	91.6%	91.2%	90.8%	90.4%	90.0%	89.6%
61	92.9%	92.5%	92.0%	91.6%	91.2%	90.8%	90.3%	89.9%	89.5%	89.1%
62	92.6%	92.1%	91.7%	91.2%	90.8%	90.3%	89.9%	89.4%	89.0%	88.6%
63	92.3%	91.8%	91.3%	90.9%	90.4%	89.9%	89.4%	89.0%	88.5%	88.0%
64	92.0%	91.5%	91.0%	90.5%	90.0%	89.5%	89.0%	88.5%	88.0%	87.5%
65	91.7%	91.1%	90.6%	90.1%	89.6%	89.0%	88.5%	88.0%	87.5%	86.9%
66	91.3%	90.8%	90.3%	89.7%	89.1%	88.6%	88.0%	87.5%	86.9%	86.4%
67	91.0%	90.5%	89.9%	89.3%	88.7%	88.1%	87.6%	87.0%	86.4%	85.8%
68	90.7%	90.1%	89.5%	88.9%	88.3%	87.7%	87.1%	86.5%	85.8%	85.2%
69	90.4%	89.8%	89.1%	88.5%	87.8%	87.2%	86.6%	85.9%	85.3%	84.6%
70	90.1%	89.4%	88.7%	88.1%	87.4%	86.7%	86.0%	85.3%	84.7%	84.0%
71	89.7%	89.0%	88.3%	87.6%	86.9%	86.2%	85.5%	84.8%	84.1%	83.4%
72	89.4%	88.6%	87.9%	87.1%	86.4%	85.6%	84.9%	84.1%	83.4%	82.7%
73	89.0%	88.2%	87.4%	86.6%	85.9%	85.1%	84.3%	83.5%	82.7%	81.9%
74	88.6%	87.8%	87.0%	86.1%	85.3%	84.5%	83.6%	82.8%	82.0%	81.2%
75	88.3%	87.4%	86.5%	85.6%	84.8%	83.9%	83.0%	82.1%	81.3%	80.4%

1 Relative Value Factors For 50% Joint & Survivor without Pop-Up

Participant's Age	Years by which the Spouse is Younger than the Participant									
	11	12	13	14	15	16	17	18	19	20
30	97.4%	97.4%	97.3%	97.2%	97.1%	97.1%	97.0%	96.9%	96.8%	96.8%
31	97.3%	97.2%	97.1%	97.1%	97.0%	96.9%	96.8%	96.8%	96.7%	96.6%
32	97.2%	97.1%	97.0%	96.9%	96.8%	96.8%	96.7%	96.6%	96.5%	96.5%
33	97.1%	97.0%	96.9%	96.8%	96.7%	96.6%	96.5%	96.4%	96.4%	96.3%
34	96.9%	96.8%	96.7%	96.6%	96.5%	96.4%	96.4%	96.3%	96.2%	96.1%
35	96.8%	96.7%	96.6%	96.5%	96.4%	96.3%	96.2%	96.1%	96.0%	95.9%
36	96.6%	96.5%	96.4%	96.3%	96.2%	96.1%	96.0%	95.9%	95.8%	95.7%
37	96.5%	96.3%	96.2%	96.1%	96.0%	95.9%	95.8%	95.7%	95.6%	95.5%
38	96.3%	96.2%	96.1%	95.9%	95.8%	95.7%	95.6%	95.5%	95.4%	95.3%
39	96.1%	96.0%	95.9%	95.8%	95.6%	95.5%	95.4%	95.3%	95.2%	95.1%
40	95.9%	95.8%	95.7%	95.5%	95.4%	95.3%	95.2%	95.1%	95.0%	94.8%
41	95.7%	95.6%	95.5%	95.3%	95.2%	95.1%	94.9%	94.8%	94.7%	94.6%
42	95.5%	95.4%	95.2%	95.1%	95.0%	94.8%	94.7%	94.6%	94.4%	94.3%
43	95.3%	95.2%	95.0%	94.9%	94.7%	94.6%	94.4%	94.3%	94.2%	94.0%
44	95.1%	94.9%	94.8%	94.6%	94.5%	94.3%	94.2%	94.0%	93.9%	93.8%
45	94.8%	94.7%	94.5%	94.3%	94.2%	94.0%	93.9%	93.7%	93.6%	93.4%
46	94.6%	94.4%	94.2%	94.1%	93.9%	93.7%	93.6%	93.4%	93.3%	93.1%
47	94.3%	94.1%	93.9%	93.8%	93.6%	93.4%	93.2%	93.1%	92.9%	92.8%
48	94.0%	93.8%	93.6%	93.4%	93.3%	93.1%	92.9%	92.7%	92.6%	92.4%
49	93.7%	93.5%	93.3%	93.1%	92.9%	92.7%	92.5%	92.4%	92.2%	92.0%
50	93.4%	93.2%	93.0%	92.8%	92.6%	92.3%	92.2%	92.0%	91.8%	91.6%
51	93.1%	92.8%	92.6%	92.4%	92.2%	92.0%	91.7%	91.5%	91.3%	91.2%
52	92.7%	92.5%	92.2%	92.0%	91.8%	91.5%	91.3%	91.1%	90.9%	90.7%
53	92.3%	92.1%	91.8%	91.6%	91.3%	91.1%	90.9%	90.6%	90.4%	90.2%
54	91.9%	91.7%	91.4%	91.1%	90.9%	90.6%	90.4%	90.1%	89.9%	89.7%
55	91.5%	91.2%	90.9%	90.7%	90.4%	90.1%	89.9%	89.6%	89.4%	89.2%
56	91.1%	90.8%	90.5%	90.2%	89.9%	89.6%	89.3%	89.1%	88.8%	88.6%
57	90.6%	90.3%	90.0%	89.7%	89.4%	89.1%	88.8%	88.5%	88.3%	88.0%
58	90.2%	89.8%	89.5%	89.2%	88.8%	88.5%	88.2%	87.9%	87.7%	87.4%
59	89.7%	89.3%	89.0%	88.6%	88.3%	88.0%	87.6%	87.3%	87.0%	86.8%
60	89.2%	88.8%	88.4%	88.1%	87.7%	87.4%	87.0%	86.7%	86.4%	86.1%
61	88.7%	88.3%	87.9%	87.5%	87.1%	86.7%	86.4%	86.0%	85.7%	85.4%
62	88.1%	87.7%	87.3%	86.9%	86.5%	86.1%	85.7%	85.4%	85.0%	84.7%
63	87.6%	87.1%	86.7%	86.3%	85.8%	85.4%	85.0%	84.7%	84.3%	83.9%
64	87.0%	86.5%	86.1%	85.6%	85.2%	84.8%	84.3%	83.9%	83.6%	83.2%
65	86.4%	85.9%	85.5%	85.0%	84.5%	84.1%	83.6%	83.2%	82.8%	82.4%
66	85.9%	85.3%	84.8%	84.3%	83.8%	83.3%	82.9%	82.4%	82.0%	81.6%
67	85.3%	84.7%	84.2%	83.6%	83.1%	82.6%	82.1%	81.7%	81.2%	80.8%
68	84.7%	84.1%	83.5%	82.9%	82.4%	81.9%	81.3%	80.9%	80.4%	79.9%
69	84.0%	83.4%	82.8%	82.2%	81.6%	81.1%	80.5%	80.0%	79.5%	79.0%
70	83.4%	82.7%	82.1%	81.5%	80.9%	80.3%	79.7%	79.1%	78.6%	78.1%
71	82.7%	82.0%	81.3%	80.7%	80.0%	79.4%	78.8%	78.2%	77.7%	77.1%
72	81.9%	81.2%	80.5%	79.8%	79.2%	78.5%	77.9%	77.3%	76.7%	76.1%
73	81.2%	80.4%	79.7%	79.0%	78.3%	77.6%	77.0%	76.3%	75.7%	75.1%
74	80.4%	79.6%	78.9%	78.1%	77.4%	76.7%	76.0%	75.3%	74.6%	74.0%
75	79.6%	78.8%	78.0%	77.2%	76.4%	75.7%	74.9%	74.2%	73.6%	72.9%

1 Relative Value Factors For 50% Joint & Survivor without Pop-Up

Participant's Age	Years by which the Spouse is Younger than the Participant									
	21	22	23	24	25	26	27	28	29	30
30	96.7%	96.7%	96.6%	96.5%	96.5%	96.4%	96.4%	96.3%	96.3%	96.3%
31	96.6%	96.5%	96.4%	96.4%	96.3%	96.3%	96.2%	96.2%	96.1%	96.1%
32	96.4%	96.3%	96.3%	96.2%	96.1%	96.1%	96.0%	96.0%	95.9%	95.9%
33	96.2%	96.1%	96.1%	96.0%	96.0%	95.9%	95.8%	95.8%	95.7%	95.7%
34	96.0%	96.0%	95.9%	95.8%	95.8%	95.7%	95.6%	95.6%	95.5%	95.5%
35	95.8%	95.8%	95.7%	95.6%	95.6%	95.5%	95.4%	95.4%	95.3%	95.3%
36	95.6%	95.6%	95.5%	95.4%	95.3%	95.3%	95.2%	95.1%	95.1%	95.0%
37	95.4%	95.4%	95.3%	95.2%	95.1%	95.0%	95.0%	94.9%	94.8%	94.8%
38	95.2%	95.1%	95.0%	95.0%	94.9%	94.8%	94.7%	94.7%	94.6%	94.5%
39	95.0%	94.9%	94.8%	94.7%	94.6%	94.5%	94.5%	94.4%	94.3%	94.3%
40	94.7%	94.6%	94.5%	94.5%	94.4%	94.3%	94.2%	94.1%	94.0%	94.0%
41	94.5%	94.4%	94.3%	94.2%	94.1%	94.0%	93.9%	93.8%	93.8%	93.7%
42	94.2%	94.1%	94.0%	93.9%	93.8%	93.7%	93.6%	93.5%	93.4%	93.4%
43	93.9%	93.8%	93.7%	93.6%	93.5%	93.4%	93.3%	93.2%	93.1%	93.0%
44	93.6%	93.5%	93.4%	93.3%	93.2%	93.1%	93.0%	92.9%	92.8%	92.7%
45	93.3%	93.2%	93.0%	92.9%	92.8%	92.7%	92.6%	92.5%	92.4%	92.3%
46	93.0%	92.8%	92.7%	92.6%	92.5%	92.3%	92.2%	92.1%	92.0%	91.9%
47	92.6%	92.5%	92.3%	92.2%	92.1%	92.0%	91.8%	91.7%	91.6%	91.5%
48	92.2%	92.1%	91.9%	91.8%	91.7%	91.5%	91.4%	91.3%	91.2%	91.1%
49	91.8%	91.7%	91.5%	91.4%	91.2%	91.1%	91.0%	90.9%	90.7%	90.6%
50	91.4%	91.2%	91.1%	90.9%	90.8%	90.6%	90.5%	90.4%	90.3%	90.2%
51	91.0%	90.8%	90.6%	90.5%	90.3%	90.2%	90.0%	89.9%	89.8%	89.6%
52	90.5%	90.3%	90.1%	90.0%	89.8%	89.6%	89.5%	89.4%	89.2%	89.1%
53	90.0%	89.8%	89.6%	89.4%	89.3%	89.1%	89.0%	88.8%	88.7%	88.5%
54	89.5%	89.3%	89.1%	88.9%	88.7%	88.5%	88.4%	88.2%	88.1%	87.9%
55	88.9%	88.7%	88.5%	88.3%	88.1%	87.9%	87.8%	87.6%	87.4%	87.3%
56	88.4%	88.1%	87.9%	87.7%	87.5%	87.3%	87.1%	87.0%	86.8%	86.6%
57	87.8%	87.5%	87.3%	87.1%	86.9%	86.7%	86.5%	86.3%	86.1%	86.0%
58	87.1%	86.9%	86.6%	86.4%	86.2%	86.0%	85.8%	85.6%	85.4%	85.2%
59	86.5%	86.2%	86.0%	85.7%	85.5%	85.3%	85.1%	84.9%	84.7%	84.5%
60	85.8%	85.5%	85.2%	85.0%	84.7%	84.5%	84.3%	84.1%	83.9%	83.7%
61	85.1%	84.8%	84.5%	84.2%	84.0%	83.7%	83.5%	83.3%	83.1%	82.9%
62	84.4%	84.0%	83.7%	83.5%	83.2%	82.9%	82.7%	82.5%	82.3%	82.1%
63	83.6%	83.3%	83.0%	82.7%	82.4%	82.1%	81.8%	81.6%	81.4%	81.2%
64	82.8%	82.5%	82.1%	81.8%	81.5%	81.2%	81.0%	80.7%	80.5%	80.3%
65	82.0%	81.7%	81.3%	81.0%	80.7%	80.4%	80.1%	79.8%	79.6%	79.3%
66	81.2%	80.8%	80.4%	80.1%	79.8%	79.5%	79.2%	78.9%	78.6%	78.4%
67	80.3%	79.9%	79.6%	79.2%	78.8%	78.5%	78.2%	77.9%	77.6%	77.4%
68	79.5%	79.0%	78.6%	78.3%	77.9%	77.5%	77.2%	76.9%	76.6%	76.4%
69	78.6%	78.1%	77.7%	77.3%	76.9%	76.5%	76.2%	75.9%	75.6%	75.3%
70	77.6%	77.1%	76.7%	76.3%	75.9%	75.5%	75.1%	74.8%	74.5%	74.2%
71	76.6%	76.1%	75.7%	75.2%	74.8%	74.4%	74.0%	73.7%	73.3%	73.0%
72	75.6%	75.1%	74.6%	74.1%	73.7%	73.2%	72.8%	72.5%	72.1%	71.8%
73	74.5%	74.0%	73.5%	73.0%	72.5%	72.1%	71.6%	71.3%	70.9%	70.6%
74	73.4%	72.8%	72.3%	71.8%	71.3%	70.8%	70.4%	70.0%	69.6%	69.2%
75	72.3%	71.7%	71.1%	70.6%	70.0%	69.6%	69.1%	68.7%	68.3%	67.9%

2 Relative Value Factors For 75% Joint & Survivor without Pop-Up

Participant's Age	Years by which the Spouse is Older than the Participant									
	20	19	18	17	16	15	14	13	12	11
30	99.2%	99.2%	99.1%	99.1%	99.0%	98.9%	98.9%	98.8%	98.7%	98.6%
31	99.2%	99.1%	99.1%	99.0%	99.0%	98.9%	98.8%	98.7%	98.7%	98.6%
32	99.2%	99.1%	99.1%	99.0%	98.9%	98.8%	98.8%	98.7%	98.6%	98.5%
33	99.2%	99.1%	99.0%	99.0%	98.9%	98.8%	98.7%	98.6%	98.5%	98.5%
34	99.1%	99.1%	99.0%	98.9%	98.8%	98.8%	98.7%	98.6%	98.5%	98.4%
35	99.1%	99.0%	99.0%	98.9%	98.8%	98.7%	98.6%	98.5%	98.4%	98.3%
36	99.1%	99.0%	98.9%	98.9%	98.8%	98.7%	98.6%	98.5%	98.4%	98.3%
37	99.1%	99.0%	98.9%	98.8%	98.7%	98.7%	98.6%	98.4%	98.3%	98.2%
38	99.1%	99.0%	98.9%	98.8%	98.7%	98.6%	98.5%	98.4%	98.3%	98.2%
39	99.0%	99.0%	98.9%	98.8%	98.7%	98.6%	98.5%	98.3%	98.2%	98.1%
40	99.0%	98.9%	98.8%	98.7%	98.6%	98.5%	98.4%	98.3%	98.2%	98.0%
41	99.0%	98.9%	98.8%	98.7%	98.6%	98.5%	98.4%	98.2%	98.1%	98.0%
42	99.0%	98.9%	98.8%	98.7%	98.6%	98.4%	98.3%	98.2%	98.0%	97.9%
43	98.9%	98.8%	98.7%	98.6%	98.5%	98.4%	98.3%	98.1%	98.0%	97.8%
44	98.9%	98.8%	98.7%	98.6%	98.5%	98.3%	98.2%	98.0%	97.9%	97.7%
45	98.9%	98.8%	98.7%	98.5%	98.4%	98.3%	98.1%	98.0%	97.8%	97.6%
46	98.9%	98.7%	98.6%	98.5%	98.4%	98.2%	98.1%	97.9%	97.7%	97.6%
47	98.8%	98.7%	98.6%	98.5%	98.3%	98.2%	98.0%	97.8%	97.7%	97.5%
48	98.8%	98.7%	98.5%	98.4%	98.3%	98.1%	97.9%	97.8%	97.6%	97.4%
49	98.8%	98.6%	98.5%	98.4%	98.2%	98.0%	97.9%	97.7%	97.5%	97.3%
50	98.7%	98.6%	98.4%	98.3%	98.1%	98.0%	97.8%	97.6%	97.4%	97.1%
51	98.7%	98.5%	98.4%	98.2%	98.1%	97.9%	97.7%	97.5%	97.3%	97.0%
52	98.6%	98.5%	98.3%	98.2%	98.0%	97.8%	97.6%	97.4%	97.1%	96.9%
53	98.6%	98.4%	98.3%	98.1%	97.9%	97.7%	97.5%	97.3%	97.0%	96.8%
54	98.6%	98.4%	98.2%	98.0%	97.8%	97.6%	97.4%	97.2%	96.9%	96.6%
55	98.5%	98.3%	98.2%	98.0%	97.8%	97.5%	97.3%	97.0%	96.8%	96.5%
56	98.5%	98.3%	98.1%	97.9%	97.7%	97.4%	97.2%	96.9%	96.6%	96.3%
57	98.4%	98.2%	98.0%	97.8%	97.6%	97.4%	97.1%	96.8%	96.5%	96.2%
58	98.4%	98.2%	98.0%	97.8%	97.5%	97.3%	97.0%	96.7%	96.4%	96.1%
59	98.4%	98.2%	97.9%	97.7%	97.5%	97.2%	96.9%	96.6%	96.3%	95.9%
60	98.3%	98.1%	97.9%	97.7%	97.4%	97.1%	96.8%	96.5%	96.2%	95.8%
61	98.3%	98.1%	97.9%	97.6%	97.3%	97.0%	96.7%	96.4%	96.0%	95.7%
62	98.3%	98.0%	97.8%	97.6%	97.3%	97.0%	96.6%	96.3%	95.9%	95.5%
63	98.2%	98.0%	97.8%	97.5%	97.2%	96.9%	96.6%	96.2%	95.8%	95.4%
64	98.2%	98.0%	97.8%	97.5%	97.2%	96.9%	96.5%	96.1%	95.7%	95.3%
65	98.2%	98.0%	97.7%	97.5%	97.2%	96.8%	96.5%	96.1%	95.7%	95.2%
66	98.2%	98.0%	97.7%	97.4%	97.1%	96.8%	96.4%	96.0%	95.6%	95.1%
67	98.2%	98.0%	97.7%	97.4%	97.1%	96.8%	96.4%	96.0%	95.5%	95.1%
68	98.2%	98.0%	97.7%	97.4%	97.1%	96.8%	96.4%	95.9%	95.5%	95.0%
69	98.2%	98.0%	97.7%	97.4%	97.1%	96.7%	96.3%	95.9%	95.4%	94.9%
70	98.2%	98.0%	97.7%	97.4%	97.1%	96.7%	96.3%	95.9%	95.4%	94.9%
71	98.2%	97.9%	97.7%	97.4%	97.1%	96.7%	96.3%	95.8%	95.3%	94.8%
72	98.1%	97.9%	97.6%	97.4%	97.0%	96.7%	96.3%	95.8%	95.3%	94.7%
73	98.1%	97.8%	97.6%	97.3%	97.0%	96.6%	96.2%	95.8%	95.2%	94.7%
74	98.0%	97.8%	97.5%	97.2%	96.9%	96.6%	96.2%	95.7%	95.2%	94.6%
75	97.9%	97.7%	97.4%	97.2%	96.9%	96.5%	96.1%	95.6%	95.1%	94.5%

2 Relative Value Factors For 75% Joint & Survivor without Pop-Up

Participant's	Years by which the Spouse is Older than the Participant										
Age	10	9	8	7	6	5	4	3	2	1	0
30	98.5%	98.4%	98.4%	98.3%	98.2%	98.1%	98.0%	97.9%	97.7%	97.6%	97.5%
31	98.5%	98.4%	98.3%	98.2%	98.1%	98.0%	97.9%	97.8%	97.6%	97.5%	97.4%
32	98.4%	98.3%	98.2%	98.1%	98.0%	97.9%	97.8%	97.7%	97.5%	97.4%	97.3%
33	98.4%	98.3%	98.1%	98.0%	97.9%	97.8%	97.7%	97.6%	97.4%	97.3%	97.2%
34	98.3%	98.2%	98.1%	98.0%	97.8%	97.7%	97.6%	97.5%	97.3%	97.2%	97.0%
35	98.2%	98.1%	98.0%	97.9%	97.8%	97.6%	97.5%	97.3%	97.2%	97.1%	96.9%
36	98.2%	98.0%	97.9%	97.8%	97.7%	97.5%	97.4%	97.2%	97.1%	96.9%	96.8%
37	98.1%	98.0%	97.8%	97.7%	97.6%	97.4%	97.3%	97.1%	97.0%	96.8%	96.6%
38	98.0%	97.9%	97.8%	97.6%	97.5%	97.3%	97.2%	97.0%	96.8%	96.7%	96.5%
39	98.0%	97.8%	97.7%	97.5%	97.4%	97.2%	97.0%	96.9%	96.7%	96.5%	96.3%
40	97.9%	97.7%	97.6%	97.4%	97.3%	97.1%	96.9%	96.7%	96.6%	96.4%	96.2%
41	97.8%	97.7%	97.5%	97.3%	97.2%	97.0%	96.8%	96.6%	96.4%	96.2%	96.0%
42	97.7%	97.6%	97.4%	97.2%	97.0%	96.9%	96.7%	96.5%	96.3%	96.0%	95.8%
43	97.6%	97.5%	97.3%	97.1%	96.9%	96.7%	96.5%	96.3%	96.1%	95.9%	95.7%
44	97.6%	97.4%	97.2%	97.0%	96.8%	96.6%	96.4%	96.1%	95.9%	95.7%	95.5%
45	97.5%	97.3%	97.1%	96.9%	96.7%	96.4%	96.2%	96.0%	95.7%	95.5%	95.3%
46	97.4%	97.2%	97.0%	96.7%	96.5%	96.3%	96.0%	95.8%	95.6%	95.3%	95.0%
47	97.3%	97.1%	96.8%	96.6%	96.4%	96.1%	95.9%	95.6%	95.4%	95.1%	94.8%
48	97.2%	96.9%	96.7%	96.5%	96.2%	96.0%	95.7%	95.4%	95.1%	94.9%	94.6%
49	97.0%	96.8%	96.6%	96.3%	96.1%	95.8%	95.5%	95.2%	94.9%	94.6%	94.3%
50	96.9%	96.7%	96.4%	96.2%	95.9%	95.6%	95.3%	95.0%	94.7%	94.4%	94.0%
51	96.8%	96.5%	96.3%	96.0%	95.7%	95.4%	95.1%	94.8%	94.4%	94.1%	93.8%
52	96.6%	96.4%	96.1%	95.8%	95.5%	95.2%	94.9%	94.5%	94.2%	93.8%	93.5%
53	96.5%	96.2%	95.9%	95.6%	95.3%	95.0%	94.6%	94.3%	93.9%	93.5%	93.2%
54	96.4%	96.1%	95.7%	95.4%	95.1%	94.7%	94.4%	94.0%	93.6%	93.2%	92.8%
55	96.2%	95.9%	95.6%	95.2%	94.9%	94.5%	94.1%	93.7%	93.3%	92.9%	92.5%
56	96.0%	95.7%	95.4%	95.0%	94.6%	94.2%	93.8%	93.4%	93.0%	92.6%	92.1%
57	95.9%	95.5%	95.2%	94.8%	94.4%	94.0%	93.6%	93.1%	92.7%	92.2%	91.8%
58	95.7%	95.4%	95.0%	94.6%	94.2%	93.8%	93.3%	92.9%	92.4%	91.9%	91.4%
59	95.6%	95.2%	94.8%	94.4%	93.9%	93.5%	93.0%	92.6%	92.1%	91.6%	91.0%
60	95.4%	95.0%	94.6%	94.2%	93.7%	93.2%	92.7%	92.2%	91.7%	91.2%	90.7%
61	95.3%	94.8%	94.4%	93.9%	93.5%	93.0%	92.5%	91.9%	91.4%	90.8%	90.3%
62	95.1%	94.7%	94.2%	93.7%	93.2%	92.7%	92.2%	91.6%	91.0%	90.5%	89.9%
63	95.0%	94.5%	94.0%	93.5%	93.0%	92.4%	91.9%	91.3%	90.7%	90.1%	89.5%
64	94.8%	94.4%	93.9%	93.3%	92.8%	92.2%	91.6%	91.0%	90.4%	89.7%	89.1%
65	94.7%	94.2%	93.7%	93.1%	92.6%	92.0%	91.3%	90.7%	90.0%	89.4%	88.7%
66	94.6%	94.1%	93.5%	93.0%	92.4%	91.7%	91.1%	90.4%	89.7%	89.0%	88.3%
67	94.5%	94.0%	93.4%	92.8%	92.2%	91.5%	90.8%	90.1%	89.4%	88.6%	87.9%
68	94.5%	93.9%	93.3%	92.7%	92.0%	91.3%	90.6%	89.8%	89.1%	88.3%	87.5%
69	94.4%	93.8%	93.2%	92.5%	91.8%	91.1%	90.3%	89.6%	88.7%	87.9%	87.1%
70	94.3%	93.7%	93.0%	92.4%	91.6%	90.9%	90.1%	89.3%	88.4%	87.6%	86.7%
71	94.2%	93.6%	92.9%	92.2%	91.4%	90.7%	89.8%	89.0%	88.1%	87.2%	86.3%
72	94.1%	93.5%	92.8%	92.0%	91.3%	90.4%	89.6%	88.7%	87.7%	86.8%	85.8%
73	94.0%	93.4%	92.7%	91.9%	91.1%	90.2%	89.3%	88.4%	87.4%	86.4%	85.4%
74	94.0%	93.3%	92.5%	91.7%	90.9%	90.0%	89.0%	88.1%	87.0%	86.0%	84.9%
75	93.9%	93.1%	92.4%	91.6%	90.7%	89.8%	88.8%	87.8%	86.7%	85.6%	84.5%

2 Relative Value Factors For 75% Joint & Survivor without Pop-Up

Participant's	Years by which the Spouse is Younger than the Participant									
Age	1	2	3	4	5	6	7	8	9	10
30	97.4%	97.3%	97.2%	97.0%	96.9%	96.8%	96.7%	96.6%	96.4%	96.3%
31	97.3%	97.2%	97.0%	96.9%	96.8%	96.6%	96.5%	96.4%	96.3%	96.1%
32	97.2%	97.0%	96.9%	96.8%	96.6%	96.5%	96.4%	96.2%	96.1%	96.0%
33	97.0%	96.9%	96.8%	96.6%	96.5%	96.3%	96.2%	96.1%	95.9%	95.8%
34	96.9%	96.8%	96.6%	96.5%	96.3%	96.2%	96.0%	95.9%	95.7%	95.6%
35	96.8%	96.6%	96.5%	96.3%	96.1%	96.0%	95.8%	95.7%	95.5%	95.4%
36	96.6%	96.5%	96.3%	96.1%	96.0%	95.8%	95.7%	95.5%	95.3%	95.2%
37	96.5%	96.3%	96.1%	96.0%	95.8%	95.6%	95.5%	95.3%	95.1%	94.9%
38	96.3%	96.1%	96.0%	95.8%	95.6%	95.4%	95.2%	95.1%	94.9%	94.7%
39	96.2%	96.0%	95.8%	95.6%	95.4%	95.2%	95.0%	94.8%	94.7%	94.5%
40	96.0%	95.8%	95.6%	95.4%	95.2%	95.0%	94.8%	94.6%	94.4%	94.2%
41	95.8%	95.6%	95.4%	95.2%	95.0%	94.8%	94.6%	94.4%	94.1%	93.9%
42	95.6%	95.4%	95.2%	95.0%	94.7%	94.5%	94.3%	94.1%	93.9%	93.7%
43	95.4%	95.2%	95.0%	94.7%	94.5%	94.3%	94.0%	93.8%	93.6%	93.4%
44	95.2%	95.0%	94.7%	94.5%	94.2%	94.0%	93.8%	93.5%	93.3%	93.0%
45	95.0%	94.7%	94.5%	94.2%	94.0%	93.7%	93.5%	93.2%	93.0%	92.7%
46	94.8%	94.5%	94.2%	94.0%	93.7%	93.4%	93.2%	92.9%	92.6%	92.4%
47	94.5%	94.2%	94.0%	93.7%	93.4%	93.1%	92.8%	92.5%	92.3%	92.0%
48	94.3%	94.0%	93.7%	93.4%	93.1%	92.8%	92.5%	92.2%	91.9%	91.6%
49	94.0%	93.7%	93.4%	93.1%	92.7%	92.4%	92.1%	91.8%	91.5%	91.2%
50	93.7%	93.4%	93.1%	92.7%	92.4%	92.1%	91.7%	91.4%	91.1%	90.7%
51	93.4%	93.1%	92.7%	92.4%	92.0%	91.7%	91.3%	91.0%	90.6%	90.3%
52	93.1%	92.7%	92.4%	92.0%	91.6%	91.3%	90.9%	90.5%	90.2%	89.8%
53	92.8%	92.4%	92.0%	91.6%	91.2%	90.8%	90.4%	90.0%	89.7%	89.3%
54	92.4%	92.0%	91.6%	91.2%	90.8%	90.4%	90.0%	89.6%	89.2%	88.8%
55	92.1%	91.6%	91.2%	90.8%	90.3%	89.9%	89.5%	89.0%	88.6%	88.2%
56	91.7%	91.2%	90.8%	90.3%	89.9%	89.4%	89.0%	88.5%	88.1%	87.6%
57	91.3%	90.8%	90.4%	89.9%	89.4%	88.9%	88.4%	88.0%	87.5%	87.0%
58	90.9%	90.4%	89.9%	89.4%	88.9%	88.4%	87.9%	87.4%	86.9%	86.4%
59	90.5%	90.0%	89.5%	88.9%	88.4%	87.9%	87.3%	86.8%	86.3%	85.8%
60	90.1%	89.6%	89.0%	88.4%	87.9%	87.3%	86.8%	86.2%	85.7%	85.1%
61	89.7%	89.1%	88.5%	87.9%	87.3%	86.7%	86.2%	85.6%	85.0%	84.4%
62	89.3%	88.7%	88.0%	87.4%	86.8%	86.2%	85.6%	85.0%	84.3%	83.8%
63	88.8%	88.2%	87.5%	86.9%	86.2%	85.6%	84.9%	84.3%	83.7%	83.1%
64	88.4%	87.7%	87.1%	86.4%	85.7%	85.0%	84.3%	83.7%	83.0%	82.3%
65	88.0%	87.3%	86.6%	85.8%	85.1%	84.4%	83.7%	83.0%	82.3%	81.6%
66	87.5%	86.8%	86.1%	85.3%	84.6%	83.8%	83.1%	82.3%	81.6%	80.9%
67	87.1%	86.3%	85.6%	84.8%	84.0%	83.2%	82.4%	81.7%	80.9%	80.1%
68	86.7%	85.9%	85.1%	84.2%	83.4%	82.6%	81.8%	81.0%	80.2%	79.4%
69	86.2%	85.4%	84.5%	83.7%	82.8%	82.0%	81.1%	80.3%	79.4%	78.6%
70	85.8%	84.9%	84.0%	83.1%	82.2%	81.3%	80.4%	79.5%	78.6%	77.8%
71	85.3%	84.4%	83.4%	82.5%	81.6%	80.6%	79.7%	78.8%	77.8%	76.9%
72	84.8%	83.9%	82.9%	81.9%	80.9%	79.9%	78.9%	78.0%	77.0%	76.1%
73	84.4%	83.3%	82.3%	81.2%	80.2%	79.2%	78.1%	77.1%	76.1%	75.2%
74	83.9%	82.8%	81.7%	80.6%	79.5%	78.4%	77.3%	76.3%	75.2%	74.2%
75	83.4%	82.2%	81.1%	79.9%	78.8%	77.6%	76.5%	75.4%	74.3%	73.3%

2 Relative Value Factors For 75% Joint & Survivor without Pop-Up

Participant's	Years by which the Spouse is Younger than the Participant									
Age	11	12	13	14	15	16	17	18	19	20
30	96.2%	96.1%	96.0%	95.9%	95.8%	95.7%	95.5%	95.4%	95.3%	95.3%
31	96.0%	95.9%	95.8%	95.7%	95.6%	95.4%	95.3%	95.2%	95.1%	95.0%
32	95.8%	95.7%	95.6%	95.5%	95.3%	95.2%	95.1%	95.0%	94.9%	94.8%
33	95.6%	95.5%	95.4%	95.3%	95.1%	95.0%	94.9%	94.8%	94.7%	94.5%
34	95.4%	95.3%	95.2%	95.0%	94.9%	94.8%	94.6%	94.5%	94.4%	94.3%
35	95.2%	95.1%	94.9%	94.8%	94.7%	94.5%	94.4%	94.3%	94.1%	94.0%
36	95.0%	94.9%	94.7%	94.6%	94.4%	94.3%	94.1%	94.0%	93.9%	93.7%
37	94.8%	94.6%	94.5%	94.3%	94.1%	94.0%	93.9%	93.7%	93.6%	93.4%
38	94.5%	94.4%	94.2%	94.0%	93.9%	93.7%	93.6%	93.4%	93.3%	93.1%
39	94.3%	94.1%	93.9%	93.8%	93.6%	93.4%	93.3%	93.1%	93.0%	92.8%
40	94.0%	93.8%	93.6%	93.5%	93.3%	93.1%	92.9%	92.8%	92.6%	92.5%
41	93.7%	93.5%	93.3%	93.2%	93.0%	92.8%	92.6%	92.4%	92.3%	92.1%
42	93.4%	93.2%	93.0%	92.8%	92.6%	92.4%	92.3%	92.1%	91.9%	91.7%
43	93.1%	92.9%	92.7%	92.5%	92.3%	92.1%	91.9%	91.7%	91.5%	91.3%
44	92.8%	92.6%	92.3%	92.1%	91.9%	91.7%	91.5%	91.3%	91.1%	90.9%
45	92.5%	92.2%	92.0%	91.7%	91.5%	91.3%	91.1%	90.9%	90.7%	90.5%
46	92.1%	91.8%	91.6%	91.3%	91.1%	90.9%	90.7%	90.4%	90.2%	90.0%
47	91.7%	91.4%	91.2%	90.9%	90.7%	90.4%	90.2%	90.0%	89.7%	89.5%
48	91.3%	91.0%	90.8%	90.5%	90.2%	90.0%	89.7%	89.5%	89.2%	89.0%
49	90.9%	90.6%	90.3%	90.0%	89.7%	89.5%	89.2%	89.0%	88.7%	88.5%
50	90.4%	90.1%	89.8%	89.5%	89.2%	88.9%	88.7%	88.4%	88.1%	87.9%
51	90.0%	89.6%	89.3%	89.0%	88.7%	88.4%	88.1%	87.8%	87.6%	87.3%
52	89.5%	89.1%	88.8%	88.4%	88.1%	87.8%	87.5%	87.2%	86.9%	86.7%
53	88.9%	88.6%	88.2%	87.9%	87.5%	87.2%	86.9%	86.6%	86.3%	86.0%
54	88.4%	88.0%	87.6%	87.3%	86.9%	86.6%	86.2%	85.9%	85.6%	85.3%
55	87.8%	87.4%	87.0%	86.6%	86.3%	85.9%	85.5%	85.2%	84.9%	84.6%
56	87.2%	86.8%	86.4%	86.0%	85.6%	85.2%	84.8%	84.5%	84.1%	83.8%
57	86.6%	86.1%	85.7%	85.3%	84.9%	84.5%	84.1%	83.7%	83.4%	83.0%
58	85.9%	85.5%	85.0%	84.6%	84.2%	83.7%	83.3%	82.9%	82.6%	82.2%
59	85.3%	84.8%	84.3%	83.9%	83.4%	83.0%	82.5%	82.1%	81.7%	81.4%
60	84.6%	84.1%	83.6%	83.1%	82.6%	82.2%	81.7%	81.3%	80.9%	80.5%
61	83.9%	83.4%	82.8%	82.3%	81.8%	81.3%	80.9%	80.4%	80.0%	79.6%
62	83.2%	82.6%	82.1%	81.5%	81.0%	80.5%	80.0%	79.5%	79.1%	78.6%
63	82.4%	81.9%	81.3%	80.7%	80.2%	79.6%	79.1%	78.6%	78.2%	77.7%
64	81.7%	81.1%	80.5%	79.9%	79.3%	78.8%	78.2%	77.7%	77.2%	76.7%
65	81.0%	80.3%	79.7%	79.0%	78.4%	77.9%	77.3%	76.7%	76.2%	75.7%
66	80.2%	79.5%	78.8%	78.2%	77.5%	76.9%	76.3%	75.8%	75.2%	74.7%
67	79.4%	78.7%	78.0%	77.3%	76.6%	76.0%	75.4%	74.8%	74.2%	73.7%
68	78.6%	77.9%	77.1%	76.4%	75.7%	75.1%	74.4%	73.8%	73.2%	72.6%
69	77.8%	77.0%	76.2%	75.5%	74.8%	74.1%	73.4%	72.7%	72.1%	71.5%
70	76.9%	76.1%	75.3%	74.5%	73.8%	73.1%	72.4%	71.7%	71.0%	70.4%
71	76.1%	75.2%	74.4%	73.6%	72.8%	72.0%	71.3%	70.6%	69.9%	69.2%
72	75.1%	74.3%	73.4%	72.5%	71.7%	70.9%	70.1%	69.4%	68.7%	68.0%
73	74.2%	73.3%	72.4%	71.5%	70.6%	69.8%	69.0%	68.2%	67.5%	66.8%
74	73.2%	72.3%	71.3%	70.4%	69.5%	68.6%	67.8%	67.0%	66.2%	65.5%
75	72.2%	71.2%	70.2%	69.3%	68.3%	67.5%	66.6%	65.8%	65.0%	64.2%

2 Relative Value Factors For 75% Joint & Survivor without Pop-Up

Participant's Age	Years by which the Spouse is Younger than the Participant									
	21	22	23	24	25	26	27	28	29	30
30	95.2%	95.1%	95.0%	94.9%	94.8%	94.8%	94.7%	94.6%	94.6%	94.5%
31	94.9%	94.8%	94.7%	94.7%	94.6%	94.5%	94.4%	94.4%	94.3%	94.2%
32	94.7%	94.6%	94.5%	94.4%	94.3%	94.2%	94.2%	94.1%	94.0%	94.0%
33	94.4%	94.3%	94.2%	94.1%	94.0%	94.0%	93.9%	93.8%	93.7%	93.7%
34	94.2%	94.1%	94.0%	93.9%	93.8%	93.7%	93.6%	93.5%	93.4%	93.4%
35	93.9%	93.8%	93.7%	93.6%	93.5%	93.4%	93.3%	93.2%	93.1%	93.0%
36	93.6%	93.5%	93.4%	93.3%	93.2%	93.1%	93.0%	92.9%	92.8%	92.7%
37	93.3%	93.2%	93.1%	93.0%	92.8%	92.7%	92.6%	92.5%	92.5%	92.4%
38	93.0%	92.9%	92.7%	92.6%	92.5%	92.4%	92.3%	92.2%	92.1%	92.0%
39	92.7%	92.5%	92.4%	92.3%	92.1%	92.0%	91.9%	91.8%	91.7%	91.6%
40	92.3%	92.2%	92.0%	91.9%	91.8%	91.7%	91.5%	91.4%	91.3%	91.2%
41	91.9%	91.8%	91.7%	91.5%	91.4%	91.3%	91.1%	91.0%	90.9%	90.8%
42	91.6%	91.4%	91.3%	91.1%	91.0%	90.8%	90.7%	90.6%	90.5%	90.4%
43	91.2%	91.0%	90.8%	90.7%	90.5%	90.4%	90.3%	90.1%	90.0%	89.9%
44	90.7%	90.6%	90.4%	90.2%	90.1%	89.9%	89.8%	89.7%	89.5%	89.4%
45	90.3%	90.1%	89.9%	89.8%	89.6%	89.4%	89.3%	89.2%	89.0%	88.9%
46	89.8%	89.6%	89.4%	89.3%	89.1%	88.9%	88.8%	88.6%	88.5%	88.4%
47	89.3%	89.1%	88.9%	88.7%	88.6%	88.4%	88.2%	88.1%	87.9%	87.8%
48	88.8%	88.6%	88.4%	88.2%	88.0%	87.8%	87.7%	87.5%	87.4%	87.2%
49	88.2%	88.0%	87.8%	87.6%	87.4%	87.2%	87.1%	86.9%	86.7%	86.6%
50	87.7%	87.4%	87.2%	87.0%	86.8%	86.6%	86.4%	86.2%	86.1%	85.9%
51	87.0%	86.8%	86.6%	86.3%	86.1%	85.9%	85.7%	85.6%	85.4%	85.2%
52	86.4%	86.1%	85.9%	85.7%	85.4%	85.2%	85.0%	84.8%	84.7%	84.5%
53	85.7%	85.5%	85.2%	85.0%	84.7%	84.5%	84.3%	84.1%	83.9%	83.7%
54	85.0%	84.7%	84.5%	84.2%	84.0%	83.7%	83.5%	83.3%	83.1%	82.9%
55	84.3%	84.0%	83.7%	83.4%	83.2%	82.9%	82.7%	82.5%	82.3%	82.1%
56	83.5%	83.2%	82.9%	82.6%	82.3%	82.1%	81.9%	81.6%	81.4%	81.2%
57	82.7%	82.4%	82.1%	81.8%	81.5%	81.2%	81.0%	80.7%	80.5%	80.3%
58	81.9%	81.5%	81.2%	80.9%	80.6%	80.3%	80.1%	79.8%	79.6%	79.4%
59	81.0%	80.6%	80.3%	80.0%	79.7%	79.4%	79.1%	78.9%	78.6%	78.4%
60	80.1%	79.7%	79.4%	79.1%	78.7%	78.4%	78.2%	77.9%	77.6%	77.4%
61	79.2%	78.8%	78.4%	78.1%	77.8%	77.4%	77.1%	76.9%	76.6%	76.4%
62	78.2%	77.8%	77.5%	77.1%	76.7%	76.4%	76.1%	75.8%	75.5%	75.3%
63	77.3%	76.8%	76.4%	76.1%	75.7%	75.4%	75.0%	74.7%	74.5%	74.2%
64	76.3%	75.8%	75.4%	75.0%	74.6%	74.3%	74.0%	73.6%	73.3%	73.1%
65	75.3%	74.8%	74.4%	73.9%	73.6%	73.2%	72.8%	72.5%	72.2%	71.9%
66	74.2%	73.7%	73.3%	72.8%	72.4%	72.0%	71.7%	71.3%	71.0%	70.7%
67	73.2%	72.7%	72.2%	71.7%	71.3%	70.9%	70.5%	70.2%	69.8%	69.5%
68	72.1%	71.5%	71.1%	70.6%	70.1%	69.7%	69.3%	69.0%	68.6%	68.3%
69	71.0%	70.4%	69.9%	69.4%	68.9%	68.5%	68.1%	67.7%	67.3%	67.0%
70	69.8%	69.2%	68.7%	68.2%	67.7%	67.2%	66.8%	66.4%	66.0%	65.7%
71	68.6%	68.0%	67.5%	66.9%	66.4%	65.9%	65.5%	65.1%	64.7%	64.3%
72	67.4%	66.8%	66.2%	65.6%	65.1%	64.6%	64.1%	63.7%	63.3%	62.9%
73	66.1%	65.5%	64.9%	64.3%	63.7%	63.2%	62.7%	62.3%	61.9%	61.5%
74	64.8%	64.1%	63.5%	62.9%	62.3%	61.8%	61.3%	60.8%	60.4%	60.0%
75	63.5%	62.8%	62.1%	61.5%	60.9%	60.4%	59.8%	59.4%	58.9%	58.5%

3 Relative Value Factors For 100% Joint & Survivor without Pop-Up

Participant's Age	Years by which the Spouse is Older than the Participant									
	20	19	18	17	16	15	14	13	12	11
30	99.0%	98.9%	98.8%	98.7%	98.7%	98.6%	98.5%	98.4%	98.3%	98.2%
31	98.9%	98.9%	98.8%	98.7%	98.6%	98.5%	98.4%	98.3%	98.2%	98.1%
32	98.9%	98.8%	98.7%	98.7%	98.6%	98.5%	98.4%	98.3%	98.1%	98.0%
33	98.9%	98.8%	98.7%	98.6%	98.5%	98.4%	98.3%	98.2%	98.1%	97.9%
34	98.8%	98.8%	98.7%	98.6%	98.5%	98.4%	98.2%	98.1%	98.0%	97.9%
35	98.8%	98.7%	98.6%	98.5%	98.4%	98.3%	98.2%	98.1%	97.9%	97.8%
36	98.8%	98.7%	98.6%	98.5%	98.4%	98.3%	98.1%	98.0%	97.9%	97.7%
37	98.8%	98.7%	98.6%	98.5%	98.3%	98.2%	98.1%	97.9%	97.8%	97.6%
38	98.7%	98.6%	98.5%	98.4%	98.3%	98.2%	98.0%	97.9%	97.7%	97.6%
39	98.7%	98.6%	98.5%	98.4%	98.2%	98.1%	98.0%	97.8%	97.6%	97.5%
40	98.7%	98.6%	98.5%	98.3%	98.2%	98.0%	97.9%	97.7%	97.6%	97.4%
41	98.7%	98.5%	98.4%	98.3%	98.1%	98.0%	97.8%	97.7%	97.5%	97.3%
42	98.6%	98.5%	98.4%	98.2%	98.1%	97.9%	97.8%	97.6%	97.4%	97.2%
43	98.6%	98.5%	98.3%	98.2%	98.0%	97.9%	97.7%	97.5%	97.3%	97.1%
44	98.6%	98.4%	98.3%	98.1%	98.0%	97.8%	97.6%	97.4%	97.2%	97.0%
45	98.5%	98.4%	98.2%	98.1%	97.9%	97.7%	97.5%	97.3%	97.1%	96.9%
46	98.5%	98.3%	98.2%	98.0%	97.8%	97.6%	97.4%	97.2%	97.0%	96.8%
47	98.4%	98.3%	98.1%	98.0%	97.8%	97.6%	97.4%	97.1%	96.9%	96.6%
48	98.4%	98.2%	98.1%	97.9%	97.7%	97.5%	97.3%	97.0%	96.8%	96.5%
49	98.4%	98.2%	98.0%	97.8%	97.6%	97.4%	97.2%	96.9%	96.7%	96.4%
50	98.3%	98.1%	97.9%	97.7%	97.5%	97.3%	97.1%	96.8%	96.5%	96.2%
51	98.3%	98.1%	97.9%	97.7%	97.4%	97.2%	96.9%	96.7%	96.4%	96.1%
52	98.2%	98.0%	97.8%	97.6%	97.3%	97.1%	96.8%	96.5%	96.2%	95.9%
53	98.1%	97.9%	97.7%	97.5%	97.2%	97.0%	96.7%	96.4%	96.1%	95.7%
54	98.1%	97.9%	97.6%	97.4%	97.1%	96.9%	96.6%	96.2%	95.9%	95.6%
55	98.0%	97.8%	97.6%	97.3%	97.0%	96.7%	96.4%	96.1%	95.7%	95.4%
56	98.0%	97.7%	97.5%	97.2%	96.9%	96.6%	96.3%	95.9%	95.6%	95.2%
57	97.9%	97.7%	97.4%	97.1%	96.8%	96.5%	96.2%	95.8%	95.4%	95.0%
58	97.9%	97.6%	97.3%	97.0%	96.7%	96.4%	96.0%	95.7%	95.3%	94.8%
59	97.8%	97.6%	97.3%	97.0%	96.6%	96.3%	95.9%	95.5%	95.1%	94.6%
60	97.8%	97.5%	97.2%	96.9%	96.6%	96.2%	95.8%	95.4%	94.9%	94.5%
61	97.7%	97.5%	97.2%	96.8%	96.5%	96.1%	95.7%	95.2%	94.8%	94.3%
62	97.7%	97.4%	97.1%	96.8%	96.4%	96.0%	95.6%	95.1%	94.6%	94.1%
63	97.7%	97.4%	97.1%	96.7%	96.3%	95.9%	95.5%	95.0%	94.5%	94.0%
64	97.7%	97.4%	97.0%	96.7%	96.3%	95.9%	95.4%	94.9%	94.4%	93.8%
65	97.6%	97.3%	97.0%	96.6%	96.2%	95.8%	95.3%	94.8%	94.3%	93.7%
66	97.6%	97.3%	97.0%	96.6%	96.2%	95.8%	95.3%	94.8%	94.2%	93.6%
67	97.6%	97.3%	97.0%	96.6%	96.2%	95.7%	95.2%	94.7%	94.1%	93.5%
68	97.6%	97.3%	97.0%	96.6%	96.2%	95.7%	95.2%	94.7%	94.1%	93.4%
69	97.6%	97.3%	97.0%	96.6%	96.2%	95.7%	95.2%	94.6%	94.0%	93.4%
70	97.6%	97.3%	97.0%	96.6%	96.2%	95.7%	95.2%	94.6%	94.0%	93.3%
71	97.6%	97.3%	96.9%	96.6%	96.1%	95.7%	95.1%	94.5%	93.9%	93.2%
72	97.5%	97.2%	96.9%	96.5%	96.1%	95.6%	95.1%	94.5%	93.8%	93.1%
73	97.4%	97.1%	96.8%	96.5%	96.0%	95.6%	95.0%	94.4%	93.7%	93.0%
74	97.3%	97.0%	96.7%	96.4%	96.0%	95.5%	94.9%	94.3%	93.7%	92.9%
75	97.2%	96.9%	96.6%	96.3%	95.8%	95.4%	94.8%	94.2%	93.6%	92.8%

3 Relative Value Factors For 100% Joint & Survivor without Pop-Up

Participant's Age	Years by which the Spouse is Older than the Participant										
	10	9	8	7	6	5	4	3	2	1	0
30	98.1%	97.9%	97.8%	97.7%	97.6%	97.4%	97.3%	97.2%	97.0%	96.9%	96.7%
31	98.0%	97.9%	97.7%	97.6%	97.5%	97.3%	97.2%	97.0%	96.9%	96.7%	96.6%
32	97.9%	97.8%	97.6%	97.5%	97.4%	97.2%	97.1%	96.9%	96.7%	96.6%	96.4%
33	97.8%	97.7%	97.5%	97.4%	97.2%	97.1%	96.9%	96.8%	96.6%	96.4%	96.3%
34	97.7%	97.6%	97.4%	97.3%	97.1%	97.0%	96.8%	96.6%	96.5%	96.3%	96.1%
35	97.7%	97.5%	97.4%	97.2%	97.0%	96.9%	96.7%	96.5%	96.3%	96.1%	95.9%
36	97.6%	97.4%	97.3%	97.1%	96.9%	96.7%	96.5%	96.4%	96.2%	96.0%	95.8%
37	97.5%	97.3%	97.1%	97.0%	96.8%	96.6%	96.4%	96.2%	96.0%	95.8%	95.6%
38	97.4%	97.2%	97.0%	96.9%	96.7%	96.5%	96.3%	96.0%	95.8%	95.6%	95.4%
39	97.3%	97.1%	96.9%	96.7%	96.5%	96.3%	96.1%	95.9%	95.7%	95.4%	95.2%
40	97.2%	97.0%	96.8%	96.6%	96.4%	96.2%	95.9%	95.7%	95.5%	95.2%	95.0%
41	97.1%	96.9%	96.7%	96.5%	96.2%	96.0%	95.8%	95.5%	95.3%	95.0%	94.8%
42	97.0%	96.8%	96.6%	96.3%	96.1%	95.8%	95.6%	95.3%	95.1%	94.8%	94.5%
43	96.9%	96.7%	96.4%	96.2%	95.9%	95.7%	95.4%	95.1%	94.9%	94.6%	94.3%
44	96.8%	96.5%	96.3%	96.0%	95.8%	95.5%	95.2%	94.9%	94.6%	94.3%	94.0%
45	96.6%	96.4%	96.1%	95.9%	95.6%	95.3%	95.0%	94.7%	94.4%	94.1%	93.8%
46	96.5%	96.3%	96.0%	95.7%	95.4%	95.1%	94.8%	94.5%	94.2%	93.8%	93.5%
47	96.4%	96.1%	95.8%	95.5%	95.2%	94.9%	94.6%	94.2%	93.9%	93.5%	93.2%
48	96.2%	96.0%	95.7%	95.3%	95.0%	94.7%	94.3%	94.0%	93.6%	93.3%	92.9%
49	96.1%	95.8%	95.5%	95.1%	94.8%	94.5%	94.1%	93.7%	93.3%	93.0%	92.6%
50	95.9%	95.6%	95.3%	94.9%	94.6%	94.2%	93.8%	93.4%	93.0%	92.6%	92.2%
51	95.8%	95.4%	95.1%	94.7%	94.3%	94.0%	93.6%	93.1%	92.7%	92.3%	91.9%
52	95.6%	95.2%	94.9%	94.5%	94.1%	93.7%	93.3%	92.8%	92.4%	91.9%	91.5%
53	95.4%	95.0%	94.6%	94.2%	93.8%	93.4%	93.0%	92.5%	92.0%	91.6%	91.1%
54	95.2%	94.8%	94.4%	94.0%	93.6%	93.1%	92.6%	92.2%	91.7%	91.2%	90.7%
55	95.0%	94.6%	94.2%	93.7%	93.3%	92.8%	92.3%	91.8%	91.3%	90.8%	90.2%
56	94.8%	94.4%	93.9%	93.5%	93.0%	92.5%	92.0%	91.4%	90.9%	90.3%	89.8%
57	94.6%	94.1%	93.7%	93.2%	92.7%	92.2%	91.6%	91.1%	90.5%	89.9%	89.3%
58	94.4%	93.9%	93.4%	92.9%	92.4%	91.8%	91.3%	90.7%	90.1%	89.5%	88.9%
59	94.2%	93.7%	93.2%	92.6%	92.1%	91.5%	90.9%	90.3%	89.7%	89.1%	88.4%
60	94.0%	93.5%	92.9%	92.4%	91.8%	91.2%	90.6%	89.9%	89.3%	88.6%	87.9%
61	93.8%	93.2%	92.7%	92.1%	91.5%	90.8%	90.2%	89.5%	88.8%	88.1%	87.4%
62	93.6%	93.0%	92.4%	91.8%	91.2%	90.5%	89.8%	89.1%	88.4%	87.7%	86.9%
63	93.4%	92.8%	92.2%	91.5%	90.9%	90.2%	89.5%	88.7%	88.0%	87.2%	86.4%
64	93.2%	92.6%	92.0%	91.3%	90.6%	89.9%	89.1%	88.3%	87.6%	86.8%	85.9%
65	93.1%	92.5%	91.8%	91.1%	90.3%	89.6%	88.8%	88.0%	87.1%	86.3%	85.5%
66	93.0%	92.3%	91.6%	90.8%	90.1%	89.3%	88.4%	87.6%	86.7%	85.9%	85.0%
67	92.9%	92.1%	91.4%	90.6%	89.8%	89.0%	88.1%	87.2%	86.3%	85.4%	84.5%
68	92.7%	92.0%	91.3%	90.4%	89.6%	88.7%	87.8%	86.9%	85.9%	85.0%	84.0%
69	92.6%	91.9%	91.1%	90.3%	89.4%	88.5%	87.5%	86.5%	85.5%	84.5%	83.5%
70	92.5%	91.8%	90.9%	90.1%	89.1%	88.2%	87.2%	86.2%	85.1%	84.1%	83.0%
71	92.4%	91.6%	90.8%	89.9%	88.9%	87.9%	86.9%	85.8%	84.7%	83.6%	82.5%
72	92.3%	91.5%	90.6%	89.7%	88.7%	87.6%	86.6%	85.4%	84.3%	83.1%	82.0%
73	92.2%	91.4%	90.4%	89.5%	88.4%	87.4%	86.2%	85.1%	83.9%	82.7%	81.4%
74	92.1%	91.2%	90.3%	89.3%	88.2%	87.1%	85.9%	84.7%	83.4%	82.2%	80.9%
75	92.0%	91.1%	90.1%	89.1%	88.0%	86.8%	85.6%	84.3%	83.0%	81.7%	80.3%

3 Relative Value Factors For 100% Joint & Survivor without Pop-Up

Participant's	Years by which the Spouse is Younger than the Participant									
Age	1	2	3	4	5	6	7	8	9	10
30	96.6%	96.4%	96.2%	96.1%	95.9%	95.8%	95.6%	95.5%	95.3%	95.2%
31	96.4%	96.2%	96.1%	95.9%	95.7%	95.6%	95.4%	95.3%	95.1%	94.9%
32	96.2%	96.1%	95.9%	95.7%	95.6%	95.4%	95.2%	95.0%	94.9%	94.7%
33	96.1%	95.9%	95.7%	95.5%	95.4%	95.2%	95.0%	94.8%	94.6%	94.5%
34	95.9%	95.7%	95.5%	95.3%	95.1%	95.0%	94.8%	94.6%	94.4%	94.2%
35	95.7%	95.5%	95.3%	95.1%	94.9%	94.7%	94.5%	94.3%	94.1%	93.9%
36	95.5%	95.3%	95.1%	94.9%	94.7%	94.5%	94.3%	94.1%	93.9%	93.7%
37	95.4%	95.1%	94.9%	94.7%	94.5%	94.3%	94.0%	93.8%	93.6%	93.4%
38	95.2%	94.9%	94.7%	94.5%	94.2%	94.0%	93.8%	93.5%	93.3%	93.1%
39	94.9%	94.7%	94.5%	94.2%	94.0%	93.7%	93.5%	93.2%	93.0%	92.8%
40	94.7%	94.5%	94.2%	94.0%	93.7%	93.4%	93.2%	92.9%	92.7%	92.4%
41	94.5%	94.2%	94.0%	93.7%	93.4%	93.1%	92.9%	92.6%	92.3%	92.1%
42	94.2%	94.0%	93.7%	93.4%	93.1%	92.8%	92.5%	92.3%	92.0%	91.7%
43	94.0%	93.7%	93.4%	93.1%	92.8%	92.5%	92.2%	91.9%	91.6%	91.3%
44	93.7%	93.4%	93.1%	92.8%	92.5%	92.2%	91.8%	91.5%	91.2%	90.9%
45	93.4%	93.1%	92.8%	92.5%	92.1%	91.8%	91.5%	91.1%	90.8%	90.5%
46	93.1%	92.8%	92.5%	92.1%	91.8%	91.4%	91.1%	90.7%	90.4%	90.1%
47	92.8%	92.5%	92.1%	91.7%	91.4%	91.0%	90.7%	90.3%	89.9%	89.6%
48	92.5%	92.1%	91.7%	91.4%	91.0%	90.6%	90.2%	89.8%	89.5%	89.1%
49	92.2%	91.8%	91.4%	91.0%	90.5%	90.1%	89.7%	89.4%	89.0%	88.6%
50	91.8%	91.4%	91.0%	90.5%	90.1%	89.7%	89.3%	88.8%	88.4%	88.0%
51	91.4%	91.0%	90.5%	90.1%	89.6%	89.2%	88.7%	88.3%	87.9%	87.5%
52	91.0%	90.5%	90.1%	89.6%	89.1%	88.7%	88.2%	87.7%	87.3%	86.9%
53	90.6%	90.1%	89.6%	89.1%	88.6%	88.1%	87.6%	87.2%	86.7%	86.2%
54	90.1%	89.6%	89.1%	88.6%	88.1%	87.6%	87.0%	86.5%	86.0%	85.6%
55	89.7%	89.1%	88.6%	88.0%	87.5%	87.0%	86.4%	85.9%	85.4%	84.9%
56	89.2%	88.6%	88.1%	87.5%	86.9%	86.4%	85.8%	85.2%	84.7%	84.2%
57	88.7%	88.1%	87.5%	86.9%	86.3%	85.7%	85.1%	84.6%	84.0%	83.4%
58	88.3%	87.6%	87.0%	86.4%	85.7%	85.1%	84.5%	83.9%	83.3%	82.7%
59	87.8%	87.1%	86.4%	85.8%	85.1%	84.4%	83.8%	83.1%	82.5%	81.9%
60	87.2%	86.5%	85.8%	85.2%	84.5%	83.8%	83.1%	82.4%	81.8%	81.1%
61	86.7%	86.0%	85.3%	84.5%	83.8%	83.1%	82.4%	81.7%	81.0%	80.3%
62	86.2%	85.4%	84.7%	83.9%	83.1%	82.4%	81.6%	80.9%	80.2%	79.5%
63	85.6%	84.9%	84.1%	83.3%	82.5%	81.7%	80.9%	80.1%	79.4%	78.6%
64	85.1%	84.3%	83.5%	82.6%	81.8%	81.0%	80.1%	79.3%	78.5%	77.8%
65	84.6%	83.7%	82.9%	82.0%	81.1%	80.2%	79.4%	78.5%	77.7%	76.9%
66	84.1%	83.2%	82.2%	81.3%	80.4%	79.5%	78.6%	77.7%	76.9%	76.0%
67	83.5%	82.6%	81.6%	80.7%	79.7%	78.8%	77.9%	77.0%	76.1%	75.2%
68	83.0%	82.0%	81.0%	80.0%	79.0%	78.1%	77.1%	76.1%	75.2%	74.3%
69	82.5%	81.4%	80.4%	79.4%	78.3%	77.3%	76.3%	75.3%	74.3%	73.4%
70	81.9%	80.8%	79.7%	78.7%	77.6%	76.5%	75.5%	74.4%	73.4%	72.4%
71	81.4%	80.2%	79.1%	77.9%	76.8%	75.7%	74.6%	73.5%	72.5%	71.5%
72	80.8%	79.6%	78.4%	77.2%	76.0%	74.9%	73.7%	72.6%	71.5%	70.4%
73	80.2%	78.9%	77.7%	76.4%	75.2%	74.0%	72.8%	71.7%	70.5%	69.4%
74	79.6%	78.3%	77.0%	75.7%	74.4%	73.1%	71.9%	70.7%	69.5%	68.4%
75	79.0%	77.6%	76.2%	74.9%	73.5%	72.2%	70.9%	69.7%	68.5%	67.3%

3 Relative Value Factors For 100% Joint & Survivor without Pop-Up

Participant's	Years by which the Spouse is Younger than the Participant									
Age	11	12	13	14	15	16	17	18	19	20
30	95.0%	94.9%	94.7%	94.6%	94.4%	94.3%	94.1%	94.0%	93.9%	93.8%
31	94.8%	94.6%	94.5%	94.3%	94.2%	94.0%	93.9%	93.7%	93.6%	93.5%
32	94.5%	94.4%	94.2%	94.0%	93.9%	93.7%	93.6%	93.4%	93.3%	93.2%
33	94.3%	94.1%	93.9%	93.8%	93.6%	93.4%	93.3%	93.1%	93.0%	92.9%
34	94.0%	93.8%	93.7%	93.5%	93.3%	93.1%	93.0%	92.8%	92.7%	92.5%
35	93.7%	93.6%	93.4%	93.2%	93.0%	92.8%	92.7%	92.5%	92.3%	92.2%
36	93.5%	93.3%	93.1%	92.9%	92.7%	92.5%	92.3%	92.1%	92.0%	91.8%
37	93.2%	93.0%	92.7%	92.5%	92.3%	92.2%	92.0%	91.8%	91.6%	91.4%
38	92.9%	92.6%	92.4%	92.2%	92.0%	91.8%	91.6%	91.4%	91.2%	91.0%
39	92.5%	92.3%	92.1%	91.8%	91.6%	91.4%	91.2%	91.0%	90.8%	90.6%
40	92.2%	91.9%	91.7%	91.5%	91.2%	91.0%	90.8%	90.6%	90.4%	90.2%
41	91.8%	91.6%	91.3%	91.1%	90.8%	90.6%	90.4%	90.2%	89.9%	89.7%
42	91.4%	91.2%	90.9%	90.7%	90.4%	90.2%	89.9%	89.7%	89.5%	89.3%
43	91.0%	90.8%	90.5%	90.2%	90.0%	89.7%	89.5%	89.2%	89.0%	88.8%
44	90.6%	90.3%	90.1%	89.8%	89.5%	89.2%	89.0%	88.7%	88.5%	88.2%
45	90.2%	89.9%	89.6%	89.3%	89.0%	88.7%	88.5%	88.2%	87.9%	87.7%
46	89.7%	89.4%	89.1%	88.8%	88.5%	88.2%	87.9%	87.6%	87.4%	87.1%
47	89.2%	88.9%	88.6%	88.3%	87.9%	87.6%	87.3%	87.1%	86.8%	86.5%
48	88.7%	88.4%	88.0%	87.7%	87.4%	87.1%	86.7%	86.4%	86.1%	85.9%
49	88.2%	87.8%	87.5%	87.1%	86.8%	86.4%	86.1%	85.8%	85.5%	85.2%
50	87.6%	87.2%	86.9%	86.5%	86.1%	85.8%	85.4%	85.1%	84.8%	84.5%
51	87.0%	86.6%	86.2%	85.8%	85.5%	85.1%	84.7%	84.4%	84.1%	83.8%
52	86.4%	86.0%	85.6%	85.2%	84.8%	84.4%	84.0%	83.7%	83.3%	83.0%
53	85.8%	85.3%	84.9%	84.5%	84.0%	83.6%	83.3%	82.9%	82.5%	82.2%
54	85.1%	84.6%	84.2%	83.7%	83.3%	82.9%	82.4%	82.1%	81.7%	81.3%
55	84.4%	83.9%	83.4%	82.9%	82.5%	82.0%	81.6%	81.2%	80.8%	80.4%
56	83.6%	83.1%	82.6%	82.1%	81.7%	81.2%	80.7%	80.3%	79.9%	79.5%
57	82.9%	82.3%	81.8%	81.3%	80.8%	80.3%	79.9%	79.4%	79.0%	78.6%
58	82.1%	81.5%	81.0%	80.5%	79.9%	79.4%	79.0%	78.5%	78.0%	77.6%
59	81.3%	80.7%	80.1%	79.6%	79.0%	78.5%	78.0%	77.5%	77.1%	76.6%
60	80.5%	79.9%	79.3%	78.7%	78.1%	77.6%	77.0%	76.5%	76.0%	75.6%
61	79.6%	79.0%	78.3%	77.7%	77.2%	76.6%	76.0%	75.5%	75.0%	74.5%
62	78.8%	78.1%	77.4%	76.8%	76.2%	75.6%	75.0%	74.5%	73.9%	73.4%
63	77.9%	77.2%	76.5%	75.8%	75.2%	74.6%	74.0%	73.4%	72.8%	72.3%
64	77.0%	76.3%	75.6%	74.9%	74.2%	73.5%	72.9%	72.3%	71.7%	71.2%
65	76.1%	75.3%	74.6%	73.9%	73.2%	72.5%	71.9%	71.2%	70.6%	70.1%
66	75.2%	74.4%	73.6%	72.9%	72.1%	71.4%	70.8%	70.1%	69.5%	68.9%
67	74.3%	73.5%	72.7%	71.9%	71.1%	70.4%	69.7%	69.0%	68.3%	67.7%
68	73.4%	72.5%	71.7%	70.8%	70.1%	69.3%	68.6%	67.9%	67.2%	66.5%
69	72.4%	71.5%	70.6%	69.8%	69.0%	68.2%	67.4%	66.7%	66.0%	65.3%
70	71.5%	70.5%	69.6%	68.7%	67.9%	67.0%	66.2%	65.5%	64.8%	64.1%
71	70.4%	69.5%	68.5%	67.6%	66.7%	65.9%	65.0%	64.3%	63.5%	62.8%
72	69.4%	68.4%	67.4%	66.4%	65.5%	64.6%	63.8%	63.0%	62.2%	61.5%
73	68.3%	67.3%	66.3%	65.3%	64.3%	63.4%	62.5%	61.7%	60.9%	60.1%
74	67.2%	66.1%	65.1%	64.1%	63.1%	62.1%	61.2%	60.4%	59.5%	58.8%
75	66.1%	65.0%	63.9%	62.8%	61.8%	60.8%	59.9%	59.0%	58.2%	57.4%

3 Relative Value Factors For 100% Joint & Survivor without Pop-Up

Participant's Age	Years by which the Spouse is Younger than the Participant									
	21	22	23	24	25	26	27	28	29	30
30	93.7%	93.5%	93.4%	93.3%	93.2%	93.1%	93.0%	92.9%	92.9%	92.8%
31	93.4%	93.2%	93.1%	93.0%	92.9%	92.8%	92.7%	92.6%	92.5%	92.5%
32	93.0%	92.9%	92.8%	92.7%	92.6%	92.5%	92.4%	92.3%	92.2%	92.1%
33	92.7%	92.6%	92.5%	92.3%	92.2%	92.1%	92.0%	91.9%	91.8%	91.7%
34	92.4%	92.2%	92.1%	92.0%	91.9%	91.7%	91.6%	91.5%	91.4%	91.3%
35	92.0%	91.9%	91.7%	91.6%	91.5%	91.4%	91.2%	91.1%	91.0%	90.9%
36	91.7%	91.5%	91.4%	91.2%	91.1%	91.0%	90.8%	90.7%	90.6%	90.5%
37	91.3%	91.1%	91.0%	90.8%	90.7%	90.5%	90.4%	90.3%	90.2%	90.1%
38	90.9%	90.7%	90.5%	90.4%	90.2%	90.1%	90.0%	89.9%	89.7%	89.6%
39	90.5%	90.3%	90.1%	90.0%	89.8%	89.7%	89.5%	89.4%	89.3%	89.2%
40	90.0%	89.8%	89.7%	89.5%	89.3%	89.2%	89.0%	88.9%	88.8%	88.6%
41	89.5%	89.4%	89.2%	89.0%	88.8%	88.7%	88.5%	88.4%	88.2%	88.1%
42	89.1%	88.9%	88.7%	88.5%	88.3%	88.1%	88.0%	87.8%	87.7%	87.6%
43	88.5%	88.3%	88.1%	87.9%	87.8%	87.6%	87.4%	87.3%	87.1%	87.0%
44	88.0%	87.8%	87.6%	87.4%	87.2%	87.0%	86.8%	86.7%	86.5%	86.4%
45	87.5%	87.2%	87.0%	86.8%	86.6%	86.4%	86.2%	86.1%	85.9%	85.7%
46	86.9%	86.6%	86.4%	86.2%	86.0%	85.8%	85.6%	85.4%	85.2%	85.1%
47	86.2%	86.0%	85.8%	85.5%	85.3%	85.1%	84.9%	84.7%	84.5%	84.4%
48	85.6%	85.3%	85.1%	84.8%	84.6%	84.4%	84.2%	84.0%	83.8%	83.7%
49	84.9%	84.6%	84.4%	84.1%	83.9%	83.7%	83.4%	83.2%	83.1%	82.9%
50	84.2%	83.9%	83.6%	83.4%	83.1%	82.9%	82.7%	82.5%	82.3%	82.1%
51	83.4%	83.1%	82.9%	82.6%	82.3%	82.1%	81.9%	81.6%	81.4%	81.2%
52	82.7%	82.3%	82.0%	81.8%	81.5%	81.2%	81.0%	80.8%	80.6%	80.4%
53	81.8%	81.5%	81.2%	80.9%	80.6%	80.4%	80.1%	79.9%	79.6%	79.4%
54	81.0%	80.6%	80.3%	80.0%	79.7%	79.4%	79.2%	78.9%	78.7%	78.5%
55	80.1%	79.7%	79.4%	79.1%	78.8%	78.5%	78.2%	77.9%	77.7%	77.5%
56	79.1%	78.8%	78.4%	78.1%	77.8%	77.5%	77.2%	76.9%	76.7%	76.4%
57	78.2%	77.8%	77.4%	77.1%	76.8%	76.4%	76.2%	75.9%	75.6%	75.4%
58	77.2%	76.8%	76.4%	76.1%	75.7%	75.4%	75.1%	74.8%	74.5%	74.3%
59	76.2%	75.8%	75.4%	75.0%	74.6%	74.3%	74.0%	73.7%	73.4%	73.2%
60	75.1%	74.7%	74.3%	73.9%	73.5%	73.2%	72.9%	72.5%	72.3%	72.0%
61	74.0%	73.6%	73.2%	72.8%	72.4%	72.0%	71.7%	71.4%	71.1%	70.8%
62	72.9%	72.5%	72.0%	71.6%	71.2%	70.8%	70.5%	70.2%	69.9%	69.6%
63	71.8%	71.3%	70.9%	70.4%	70.0%	69.6%	69.3%	68.9%	68.6%	68.3%
64	70.7%	70.2%	69.7%	69.2%	68.8%	68.4%	68.0%	67.7%	67.4%	67.1%
65	69.5%	69.0%	68.5%	68.0%	67.6%	67.2%	66.8%	66.4%	66.1%	65.8%
66	68.3%	67.8%	67.3%	66.8%	66.3%	65.9%	65.5%	65.1%	64.8%	64.4%
67	67.1%	66.6%	66.1%	65.6%	65.1%	64.6%	64.2%	63.8%	63.5%	63.1%
68	65.9%	65.4%	64.8%	64.3%	63.8%	63.3%	62.9%	62.5%	62.1%	61.8%
69	64.7%	64.1%	63.5%	63.0%	62.5%	62.0%	61.5%	61.1%	60.7%	60.4%
70	63.4%	62.8%	62.2%	61.6%	61.1%	60.6%	60.2%	59.7%	59.3%	59.0%
71	62.1%	61.5%	60.8%	60.3%	59.7%	59.2%	58.7%	58.3%	57.9%	57.5%
72	60.8%	60.1%	59.5%	58.9%	58.3%	57.8%	57.3%	56.8%	56.4%	56.0%
73	59.4%	58.7%	58.1%	57.4%	56.9%	56.3%	55.8%	55.3%	54.9%	54.5%
74	58.0%	57.3%	56.6%	56.0%	55.4%	54.8%	54.3%	53.8%	53.4%	53.0%
75	56.6%	55.9%	55.2%	54.5%	53.9%	53.3%	52.8%	52.3%	51.8%	51.4%

4 Relative Value Factors For 50% Joint & Survivor with Pop-Up

Participant's	Years by which the Spouse is Older than the Participant									
Age	20	19	18	17	16	15	14	13	12	11
30	98.5%	98.4%	98.4%	98.4%	98.3%	98.3%	98.2%	98.2%	98.1%	98.1%
31	98.5%	98.4%	98.4%	98.3%	98.3%	98.3%	98.2%	98.2%	98.1%	98.0%
32	98.4%	98.4%	98.4%	98.3%	98.3%	98.2%	98.2%	98.1%	98.1%	98.0%
33	98.4%	98.4%	98.3%	98.3%	98.3%	98.2%	98.1%	98.1%	98.0%	98.0%
34	98.4%	98.4%	98.3%	98.3%	98.2%	98.2%	98.1%	98.1%	98.0%	97.9%
35	98.4%	98.4%	98.3%	98.3%	98.2%	98.1%	98.1%	98.0%	98.0%	97.9%
36	98.4%	98.3%	98.3%	98.2%	98.2%	98.1%	98.1%	98.0%	97.9%	97.8%
37	98.4%	98.3%	98.3%	98.2%	98.2%	98.1%	98.0%	98.0%	97.9%	97.8%
38	98.4%	98.3%	98.3%	98.2%	98.1%	98.1%	98.0%	97.9%	97.8%	97.8%
39	98.4%	98.3%	98.2%	98.2%	98.1%	98.0%	98.0%	97.9%	97.8%	97.7%
40	98.3%	98.3%	98.2%	98.2%	98.1%	98.0%	97.9%	97.9%	97.8%	97.7%
41	98.3%	98.3%	98.2%	98.1%	98.1%	98.0%	97.9%	97.8%	97.7%	97.6%
42	98.3%	98.2%	98.2%	98.1%	98.0%	98.0%	97.9%	97.8%	97.7%	97.6%
43	98.3%	98.2%	98.2%	98.1%	98.0%	97.9%	97.8%	97.7%	97.6%	97.5%
44	98.3%	98.2%	98.1%	98.1%	98.0%	97.9%	97.8%	97.7%	97.6%	97.5%
45	98.3%	98.2%	98.1%	98.0%	97.9%	97.8%	97.7%	97.6%	97.5%	97.4%
46	98.2%	98.2%	98.1%	98.0%	97.9%	97.8%	97.7%	97.6%	97.5%	97.4%
47	98.2%	98.1%	98.1%	98.0%	97.9%	97.8%	97.7%	97.5%	97.4%	97.3%
48	98.2%	98.1%	98.0%	97.9%	97.8%	97.7%	97.6%	97.5%	97.4%	97.2%
49	98.2%	98.1%	98.0%	97.9%	97.8%	97.7%	97.6%	97.4%	97.3%	97.2%
50	98.1%	98.1%	98.0%	97.9%	97.7%	97.6%	97.5%	97.4%	97.2%	97.1%
51	98.1%	98.0%	97.9%	97.8%	97.7%	97.6%	97.4%	97.3%	97.2%	97.0%
52	98.1%	98.0%	97.9%	97.8%	97.7%	97.5%	97.4%	97.2%	97.1%	96.9%
53	98.1%	98.0%	97.8%	97.7%	97.6%	97.5%	97.3%	97.2%	97.0%	96.8%
54	98.0%	97.9%	97.8%	97.7%	97.5%	97.4%	97.2%	97.1%	96.9%	96.7%
55	98.0%	97.9%	97.8%	97.6%	97.5%	97.3%	97.2%	97.0%	96.8%	96.6%
56	98.0%	97.9%	97.7%	97.6%	97.4%	97.3%	97.1%	96.9%	96.7%	96.5%
57	97.9%	97.8%	97.7%	97.5%	97.4%	97.2%	97.0%	96.9%	96.7%	96.4%
58	97.9%	97.8%	97.7%	97.5%	97.3%	97.2%	97.0%	96.8%	96.6%	96.3%
59	97.9%	97.8%	97.6%	97.5%	97.3%	97.1%	96.9%	96.7%	96.5%	96.2%
60	97.9%	97.7%	97.6%	97.4%	97.2%	97.1%	96.9%	96.6%	96.4%	96.2%
61	97.9%	97.7%	97.6%	97.4%	97.2%	97.0%	96.8%	96.6%	96.3%	96.1%
62	97.8%	97.7%	97.5%	97.4%	97.2%	97.0%	96.7%	96.5%	96.2%	96.0%
63	97.8%	97.7%	97.5%	97.3%	97.1%	96.9%	96.7%	96.4%	96.2%	95.9%
64	97.8%	97.7%	97.5%	97.3%	97.1%	96.9%	96.6%	96.4%	96.1%	95.8%
65	97.8%	97.7%	97.5%	97.3%	97.1%	96.9%	96.6%	96.3%	96.1%	95.8%
66	97.8%	97.6%	97.5%	97.3%	97.1%	96.8%	96.6%	96.3%	96.0%	95.7%
67	97.8%	97.6%	97.5%	97.3%	97.1%	96.8%	96.6%	96.3%	96.0%	95.6%
68	97.8%	97.6%	97.5%	97.3%	97.1%	96.8%	96.6%	96.3%	95.9%	95.6%
69	97.8%	97.6%	97.5%	97.3%	97.1%	96.8%	96.5%	96.2%	95.9%	95.6%
70	97.8%	97.6%	97.5%	97.3%	97.0%	96.8%	96.5%	96.2%	95.9%	95.5%
71	97.8%	97.6%	97.4%	97.3%	97.0%	96.8%	96.5%	96.2%	95.8%	95.5%
72	97.7%	97.6%	97.4%	97.2%	97.0%	96.8%	96.5%	96.2%	95.8%	95.4%
73	97.7%	97.5%	97.4%	97.2%	97.0%	96.7%	96.4%	96.1%	95.8%	95.4%
74	97.6%	97.5%	97.3%	97.1%	96.9%	96.7%	96.4%	96.1%	95.7%	95.3%
75	97.6%	97.4%	97.3%	97.1%	96.9%	96.6%	96.4%	96.0%	95.7%	95.3%

4 Relative Value Factors For 50% Joint & Survivor with Pop-Up

Participant's Age	Years by which the Spouse is Older than the Participant										
	10	9	8	7	6	5	4	3	2	1	0
30	98.0%	98.0%	97.9%	97.8%	97.8%	97.7%	97.6%	97.6%	97.5%	97.4%	97.3%
31	98.0%	97.9%	97.9%	97.8%	97.7%	97.6%	97.6%	97.5%	97.4%	97.3%	97.3%
32	97.9%	97.9%	97.8%	97.7%	97.7%	97.6%	97.5%	97.4%	97.3%	97.3%	97.2%
33	97.9%	97.8%	97.8%	97.7%	97.6%	97.5%	97.4%	97.4%	97.3%	97.2%	97.1%
34	97.9%	97.8%	97.7%	97.6%	97.5%	97.5%	97.4%	97.3%	97.2%	97.1%	97.0%
35	97.8%	97.7%	97.7%	97.6%	97.5%	97.4%	97.3%	97.2%	97.1%	97.0%	96.9%
36	97.8%	97.7%	97.6%	97.5%	97.4%	97.3%	97.2%	97.1%	97.0%	96.9%	96.8%
37	97.7%	97.6%	97.6%	97.5%	97.4%	97.3%	97.2%	97.1%	97.0%	96.8%	96.7%
38	97.7%	97.6%	97.5%	97.4%	97.3%	97.2%	97.1%	97.0%	96.9%	96.8%	96.6%
39	97.6%	97.5%	97.4%	97.3%	97.2%	97.1%	97.0%	96.9%	96.8%	96.7%	96.5%
40	97.6%	97.5%	97.4%	97.3%	97.2%	97.0%	96.9%	96.8%	96.7%	96.6%	96.4%
41	97.5%	97.4%	97.3%	97.2%	97.1%	97.0%	96.8%	96.7%	96.6%	96.4%	96.3%
42	97.5%	97.4%	97.2%	97.1%	97.0%	96.9%	96.7%	96.6%	96.5%	96.3%	96.2%
43	97.4%	97.3%	97.2%	97.1%	96.9%	96.8%	96.7%	96.5%	96.4%	96.2%	96.1%
44	97.4%	97.2%	97.1%	97.0%	96.8%	96.7%	96.5%	96.4%	96.2%	96.1%	95.9%
45	97.3%	97.2%	97.0%	96.9%	96.7%	96.6%	96.4%	96.3%	96.1%	96.0%	95.8%
46	97.2%	97.1%	97.0%	96.8%	96.7%	96.5%	96.3%	96.2%	96.0%	95.8%	95.6%
47	97.2%	97.0%	96.9%	96.7%	96.6%	96.4%	96.2%	96.0%	95.9%	95.7%	95.5%
48	97.1%	96.9%	96.8%	96.6%	96.4%	96.3%	96.1%	95.9%	95.7%	95.5%	95.3%
49	97.0%	96.8%	96.7%	96.5%	96.3%	96.1%	96.0%	95.8%	95.6%	95.3%	95.1%
50	96.9%	96.8%	96.6%	96.4%	96.2%	96.0%	95.8%	95.6%	95.4%	95.2%	94.9%
51	96.8%	96.7%	96.5%	96.3%	96.1%	95.9%	95.7%	95.4%	95.2%	95.0%	94.8%
52	96.7%	96.6%	96.4%	96.2%	96.0%	95.7%	95.5%	95.3%	95.0%	94.8%	94.5%
53	96.6%	96.4%	96.2%	96.0%	95.8%	95.6%	95.3%	95.1%	94.9%	94.6%	94.3%
54	96.5%	96.3%	96.1%	95.9%	95.7%	95.4%	95.2%	94.9%	94.7%	94.4%	94.1%
55	96.4%	96.2%	96.0%	95.8%	95.5%	95.3%	95.0%	94.7%	94.4%	94.2%	93.9%
56	96.3%	96.1%	95.9%	95.6%	95.4%	95.1%	94.8%	94.5%	94.2%	93.9%	93.6%
57	96.2%	96.0%	95.7%	95.5%	95.2%	94.9%	94.6%	94.3%	94.0%	93.7%	93.4%
58	96.1%	95.9%	95.6%	95.3%	95.0%	94.7%	94.4%	94.1%	93.8%	93.5%	93.1%
59	96.0%	95.7%	95.5%	95.2%	94.9%	94.6%	94.2%	93.9%	93.6%	93.2%	92.8%
60	95.9%	95.6%	95.3%	95.0%	94.7%	94.4%	94.0%	93.7%	93.3%	93.0%	92.6%
61	95.8%	95.5%	95.2%	94.9%	94.5%	94.2%	93.8%	93.5%	93.1%	92.7%	92.3%
62	95.7%	95.4%	95.1%	94.7%	94.4%	94.0%	93.6%	93.3%	92.8%	92.4%	92.0%
63	95.6%	95.3%	94.9%	94.6%	94.2%	93.8%	93.4%	93.0%	92.6%	92.2%	91.7%
64	95.5%	95.2%	94.8%	94.5%	94.1%	93.7%	93.2%	92.8%	92.4%	91.9%	91.4%
65	95.4%	95.1%	94.7%	94.3%	93.9%	93.5%	93.1%	92.6%	92.1%	91.6%	91.2%
66	95.4%	95.0%	94.6%	94.2%	93.8%	93.3%	92.9%	92.4%	91.9%	91.4%	90.9%
67	95.3%	94.9%	94.5%	94.1%	93.6%	93.2%	92.7%	92.2%	91.7%	91.1%	90.6%
68	95.2%	94.8%	94.4%	94.0%	93.5%	93.0%	92.5%	92.0%	91.4%	90.9%	90.3%
69	95.2%	94.8%	94.3%	93.9%	93.4%	92.9%	92.3%	91.8%	91.2%	90.6%	90.0%
70	95.1%	94.7%	94.3%	93.8%	93.3%	92.7%	92.2%	91.6%	91.0%	90.4%	89.7%
71	95.1%	94.6%	94.2%	93.7%	93.1%	92.6%	92.0%	91.4%	90.7%	90.1%	89.4%
72	95.0%	94.6%	94.1%	93.6%	93.0%	92.4%	91.8%	91.2%	90.5%	89.8%	89.1%
73	95.0%	94.5%	94.0%	93.4%	92.9%	92.3%	91.6%	90.9%	90.2%	89.5%	88.8%
74	94.9%	94.4%	93.9%	93.3%	92.7%	92.1%	91.4%	90.7%	90.0%	89.2%	88.4%
75	94.8%	94.3%	93.8%	93.2%	92.6%	91.9%	91.2%	90.5%	89.7%	88.9%	88.1%

4 Relative Value Factors For 50% Joint & Survivor with Pop-Up

Participant's	Years by which the Spouse is Younger than the Participant									
Age	1	2	3	4	5	6	7	8	9	10
30	97.3%	97.2%	97.1%	97.0%	96.9%	96.8%	96.8%	96.7%	96.6%	96.5%
31	97.2%	97.1%	97.0%	96.9%	96.8%	96.7%	96.7%	96.6%	96.5%	96.4%
32	97.1%	97.0%	96.9%	96.8%	96.7%	96.6%	96.5%	96.5%	96.4%	96.3%
33	97.0%	96.9%	96.8%	96.7%	96.6%	96.5%	96.4%	96.3%	96.2%	96.1%
34	96.9%	96.8%	96.7%	96.6%	96.5%	96.4%	96.3%	96.2%	96.1%	96.0%
35	96.8%	96.7%	96.6%	96.5%	96.4%	96.3%	96.2%	96.1%	96.0%	95.9%
36	96.7%	96.6%	96.5%	96.4%	96.3%	96.2%	96.1%	95.9%	95.8%	95.7%
37	96.6%	96.5%	96.4%	96.3%	96.2%	96.0%	95.9%	95.8%	95.7%	95.6%
38	96.5%	96.4%	96.3%	96.2%	96.0%	95.9%	95.8%	95.7%	95.5%	95.4%
39	96.4%	96.3%	96.2%	96.0%	95.9%	95.8%	95.6%	95.5%	95.4%	95.2%
40	96.3%	96.2%	96.0%	95.9%	95.7%	95.6%	95.5%	95.3%	95.2%	95.1%
41	96.2%	96.0%	95.9%	95.7%	95.6%	95.5%	95.3%	95.2%	95.0%	94.9%
42	96.0%	95.9%	95.7%	95.6%	95.4%	95.3%	95.1%	95.0%	94.8%	94.7%
43	95.9%	95.7%	95.6%	95.4%	95.3%	95.1%	94.9%	94.8%	94.6%	94.5%
44	95.8%	95.6%	95.4%	95.3%	95.1%	94.9%	94.7%	94.6%	94.4%	94.2%
45	95.6%	95.4%	95.3%	95.1%	94.9%	94.7%	94.5%	94.4%	94.2%	94.0%
46	95.5%	95.3%	95.1%	94.9%	94.7%	94.5%	94.3%	94.1%	94.0%	93.8%
47	95.3%	95.1%	94.9%	94.7%	94.5%	94.3%	94.1%	93.9%	93.7%	93.5%
48	95.1%	94.9%	94.7%	94.5%	94.3%	94.1%	93.9%	93.6%	93.4%	93.2%
49	94.9%	94.7%	94.5%	94.3%	94.0%	93.8%	93.6%	93.4%	93.2%	92.9%
50	94.7%	94.5%	94.3%	94.0%	93.8%	93.6%	93.3%	93.1%	92.9%	92.6%
51	94.5%	94.3%	94.0%	93.8%	93.5%	93.3%	93.0%	92.8%	92.5%	92.3%
52	94.3%	94.0%	93.8%	93.5%	93.3%	93.0%	92.7%	92.5%	92.2%	92.0%
53	94.1%	93.8%	93.5%	93.2%	93.0%	92.7%	92.4%	92.1%	91.9%	91.6%
54	93.8%	93.5%	93.2%	92.9%	92.7%	92.4%	92.1%	91.8%	91.5%	91.2%
55	93.6%	93.3%	93.0%	92.6%	92.3%	92.0%	91.7%	91.4%	91.1%	90.8%
56	93.3%	93.0%	92.7%	92.3%	92.0%	91.7%	91.4%	91.0%	90.7%	90.4%
57	93.0%	92.7%	92.4%	92.0%	91.7%	91.3%	91.0%	90.6%	90.3%	90.0%
58	92.8%	92.4%	92.0%	91.7%	91.3%	90.9%	90.6%	90.2%	89.9%	89.5%
59	92.5%	92.1%	91.7%	91.3%	91.0%	90.6%	90.2%	89.8%	89.4%	89.0%
60	92.2%	91.8%	91.4%	91.0%	90.6%	90.2%	89.8%	89.4%	89.0%	88.6%
61	91.9%	91.5%	91.0%	90.6%	90.2%	89.8%	89.3%	88.9%	88.5%	88.1%
62	91.6%	91.1%	90.7%	90.2%	89.8%	89.3%	88.9%	88.4%	88.0%	87.6%
63	91.3%	90.8%	90.3%	89.9%	89.4%	88.9%	88.4%	88.0%	87.5%	87.0%
64	91.0%	90.5%	90.0%	89.5%	89.0%	88.5%	88.0%	87.5%	87.0%	86.5%
65	90.7%	90.1%	89.6%	89.1%	88.6%	88.0%	87.5%	87.0%	86.5%	85.9%
66	90.3%	89.8%	89.3%	88.7%	88.1%	87.6%	87.0%	86.5%	85.9%	85.4%
67	90.0%	89.5%	88.9%	88.3%	87.7%	87.1%	86.6%	86.0%	85.4%	84.8%
68	89.7%	89.1%	88.5%	87.9%	87.3%	86.7%	86.1%	85.5%	84.8%	84.2%
69	89.4%	88.8%	88.1%	87.5%	86.8%	86.2%	85.6%	84.9%	84.3%	83.6%
70	89.1%	88.4%	87.7%	87.1%	86.4%	85.7%	85.0%	84.3%	83.7%	83.0%
71	88.7%	88.0%	87.3%	86.6%	85.9%	85.2%	84.5%	83.8%	83.1%	82.4%
72	88.4%	87.6%	86.9%	86.1%	85.4%	84.6%	83.9%	83.1%	82.4%	81.7%
73	88.0%	87.2%	86.4%	85.6%	84.9%	84.1%	83.3%	82.5%	81.7%	80.9%
74	87.6%	86.8%	86.0%	85.1%	84.3%	83.5%	82.6%	81.8%	81.0%	80.2%
75	87.3%	86.4%	85.5%	84.6%	83.8%	82.9%	82.0%	81.1%	80.3%	79.4%

4 Relative Value Factors For 50% Joint & Survivor with Pop-Up

Participant's Age	Years by which the Spouse is Younger than the Participant									
	11	12	13	14	15	16	17	18	19	20
30	96.4%	96.4%	96.3%	96.2%	96.1%	96.1%	96.0%	95.9%	95.8%	95.8%
31	96.3%	96.2%	96.1%	96.1%	96.0%	95.9%	95.8%	95.8%	95.7%	95.6%
32	96.2%	96.1%	96.0%	95.9%	95.8%	95.8%	95.7%	95.6%	95.5%	95.5%
33	96.1%	96.0%	95.9%	95.8%	95.7%	95.6%	95.5%	95.4%	95.4%	95.3%
34	95.9%	95.8%	95.7%	95.6%	95.5%	95.4%	95.4%	95.3%	95.2%	95.1%
35	95.8%	95.7%	95.6%	95.5%	95.4%	95.3%	95.2%	95.1%	95.0%	94.9%
36	95.6%	95.5%	95.4%	95.3%	95.2%	95.1%	95.0%	94.9%	94.8%	94.7%
37	95.5%	95.3%	95.2%	95.1%	95.0%	94.9%	94.8%	94.7%	94.6%	94.5%
38	95.3%	95.2%	95.1%	94.9%	94.8%	94.7%	94.6%	94.5%	94.4%	94.3%
39	95.1%	95.0%	94.9%	94.8%	94.6%	94.5%	94.4%	94.3%	94.2%	94.1%
40	94.9%	94.8%	94.7%	94.5%	94.4%	94.3%	94.2%	94.1%	94.0%	93.8%
41	94.7%	94.6%	94.5%	94.3%	94.2%	94.1%	93.9%	93.8%	93.7%	93.6%
42	94.5%	94.4%	94.2%	94.1%	94.0%	93.8%	93.7%	93.6%	93.4%	93.3%
43	94.3%	94.2%	94.0%	93.9%	93.7%	93.6%	93.4%	93.3%	93.2%	93.0%
44	94.1%	93.9%	93.8%	93.6%	93.5%	93.3%	93.2%	93.0%	92.9%	92.8%
45	93.8%	93.7%	93.5%	93.3%	93.2%	93.0%	92.9%	92.7%	92.6%	92.4%
46	93.6%	93.4%	93.2%	93.1%	92.9%	92.7%	92.6%	92.4%	92.3%	92.1%
47	93.3%	93.1%	92.9%	92.8%	92.6%	92.4%	92.2%	92.1%	91.9%	91.8%
48	93.0%	92.8%	92.6%	92.4%	92.3%	92.1%	91.9%	91.7%	91.6%	91.4%
49	92.7%	92.5%	92.3%	92.1%	91.9%	91.7%	91.5%	91.4%	91.2%	91.0%
50	92.4%	92.2%	92.0%	91.8%	91.6%	91.3%	91.2%	91.0%	90.8%	90.6%
51	92.1%	91.8%	91.6%	91.4%	91.2%	91.0%	90.7%	90.5%	90.3%	90.2%
52	91.7%	91.5%	91.2%	91.0%	90.8%	90.5%	90.3%	90.1%	89.9%	89.7%
53	91.3%	91.1%	90.8%	90.6%	90.3%	90.1%	89.9%	89.6%	89.4%	89.2%
54	90.9%	90.7%	90.4%	90.1%	89.9%	89.6%	89.4%	89.1%	88.9%	88.7%
55	90.5%	90.2%	89.9%	89.7%	89.4%	89.1%	88.9%	88.6%	88.4%	88.2%
56	90.1%	89.8%	89.5%	89.2%	88.9%	88.6%	88.3%	88.1%	87.8%	87.6%
57	89.6%	89.3%	89.0%	88.7%	88.4%	88.1%	87.8%	87.5%	87.3%	87.0%
58	89.2%	88.8%	88.5%	88.2%	87.8%	87.5%	87.2%	86.9%	86.7%	86.4%
59	88.7%	88.3%	88.0%	87.6%	87.3%	87.0%	86.6%	86.3%	86.0%	85.8%
60	88.2%	87.8%	87.4%	87.1%	86.7%	86.4%	86.0%	85.7%	85.4%	85.1%
61	87.7%	87.3%	86.9%	86.5%	86.1%	85.7%	85.4%	85.0%	84.7%	84.4%
62	87.1%	86.7%	86.3%	85.9%	85.5%	85.1%	84.7%	84.4%	84.0%	83.7%
63	86.6%	86.1%	85.7%	85.3%	84.8%	84.4%	84.0%	83.7%	83.3%	82.9%
64	86.0%	85.5%	85.1%	84.6%	84.2%	83.8%	83.3%	82.9%	82.6%	82.2%
65	85.4%	84.9%	84.5%	84.0%	83.5%	83.1%	82.6%	82.2%	81.8%	81.4%
66	84.9%	84.3%	83.8%	83.3%	82.8%	82.3%	81.9%	81.4%	81.0%	80.6%
67	84.3%	83.7%	83.2%	82.6%	82.1%	81.6%	81.1%	80.7%	80.2%	79.8%
68	83.7%	83.1%	82.5%	81.9%	81.4%	80.9%	80.3%	79.9%	79.4%	78.9%
69	83.0%	82.4%	81.8%	81.2%	80.6%	80.1%	79.5%	79.0%	78.5%	78.0%
70	82.4%	81.7%	81.1%	80.5%	79.9%	79.3%	78.7%	78.1%	77.6%	77.1%
71	81.7%	81.0%	80.3%	79.7%	79.0%	78.4%	77.8%	77.2%	76.7%	76.1%
72	80.9%	80.2%	79.5%	78.8%	78.2%	77.5%	76.9%	76.3%	75.7%	75.1%
73	80.2%	79.4%	78.7%	78.0%	77.3%	76.6%	76.0%	75.3%	74.7%	74.1%
74	79.4%	78.6%	77.9%	77.1%	76.4%	75.7%	75.0%	74.3%	73.6%	73.0%
75	78.6%	77.8%	77.0%	76.2%	75.4%	74.7%	73.9%	73.2%	72.6%	71.9%

4 Relative Value Factors For 50% Joint & Survivor with Pop-Up

Participant's	Years by which the Spouse is Younger than the Participant									
Age	21	22	23	24	25	26	27	28	29	30
30	95.7%	95.7%	95.6%	95.5%	95.5%	95.4%	95.4%	95.3%	95.3%	95.3%
31	95.6%	95.5%	95.4%	95.4%	95.3%	95.3%	95.2%	95.2%	95.1%	95.1%
32	95.4%	95.3%	95.3%	95.2%	95.1%	95.1%	95.0%	95.0%	94.9%	94.9%
33	95.2%	95.1%	95.1%	95.0%	95.0%	94.9%	94.8%	94.8%	94.7%	94.7%
34	95.0%	95.0%	94.9%	94.8%	94.8%	94.7%	94.6%	94.6%	94.5%	94.5%
35	94.8%	94.8%	94.7%	94.6%	94.6%	94.5%	94.4%	94.4%	94.3%	94.3%
36	94.6%	94.6%	94.5%	94.4%	94.3%	94.3%	94.2%	94.1%	94.1%	94.0%
37	94.4%	94.4%	94.3%	94.2%	94.1%	94.0%	94.0%	93.9%	93.8%	93.8%
38	94.2%	94.1%	94.0%	94.0%	93.9%	93.8%	93.7%	93.7%	93.6%	93.5%
39	94.0%	93.9%	93.8%	93.7%	93.6%	93.5%	93.5%	93.4%	93.3%	93.3%
40	93.7%	93.6%	93.5%	93.5%	93.4%	93.3%	93.2%	93.1%	93.0%	93.0%
41	93.5%	93.4%	93.3%	93.2%	93.1%	93.0%	92.9%	92.8%	92.8%	92.7%
42	93.2%	93.1%	93.0%	92.9%	92.8%	92.7%	92.6%	92.5%	92.4%	92.4%
43	92.9%	92.8%	92.7%	92.6%	92.5%	92.4%	92.3%	92.2%	92.1%	92.0%
44	92.6%	92.5%	92.4%	92.3%	92.2%	92.1%	92.0%	91.9%	91.8%	91.7%
45	92.3%	92.2%	92.0%	91.9%	91.8%	91.7%	91.6%	91.5%	91.4%	91.3%
46	92.0%	91.8%	91.7%	91.6%	91.5%	91.3%	91.2%	91.1%	91.0%	90.9%
47	91.6%	91.5%	91.3%	91.2%	91.1%	91.0%	90.8%	90.7%	90.6%	90.5%
48	91.2%	91.1%	90.9%	90.8%	90.7%	90.5%	90.4%	90.3%	90.2%	90.1%
49	90.8%	90.7%	90.5%	90.4%	90.2%	90.1%	90.0%	89.9%	89.7%	89.6%
50	90.4%	90.2%	90.1%	89.9%	89.8%	89.6%	89.5%	89.4%	89.3%	89.2%
51	90.0%	89.8%	89.6%	89.5%	89.3%	89.2%	89.0%	88.9%	88.8%	88.6%
52	89.5%	89.3%	89.1%	89.0%	88.8%	88.6%	88.5%	88.4%	88.2%	88.1%
53	89.0%	88.8%	88.6%	88.4%	88.3%	88.1%	88.0%	87.8%	87.7%	87.5%
54	88.5%	88.3%	88.1%	87.9%	87.7%	87.5%	87.4%	87.2%	87.1%	86.9%
55	87.9%	87.7%	87.5%	87.3%	87.1%	86.9%	86.8%	86.6%	86.4%	86.3%
56	87.4%	87.1%	86.9%	86.7%	86.5%	86.3%	86.1%	86.0%	85.8%	85.6%
57	86.8%	86.5%	86.3%	86.1%	85.9%	85.7%	85.5%	85.3%	85.1%	85.0%
58	86.1%	85.9%	85.6%	85.4%	85.2%	85.0%	84.8%	84.6%	84.4%	84.2%
59	85.5%	85.2%	85.0%	84.7%	84.5%	84.3%	84.1%	83.9%	83.7%	83.5%
60	84.8%	84.5%	84.2%	84.0%	83.7%	83.5%	83.3%	83.1%	82.9%	82.7%
61	84.1%	83.8%	83.5%	83.2%	83.0%	82.7%	82.5%	82.3%	82.1%	81.9%
62	83.4%	83.0%	82.7%	82.5%	82.2%	81.9%	81.7%	81.5%	81.3%	81.1%
63	82.6%	82.3%	82.0%	81.7%	81.4%	81.1%	80.8%	80.6%	80.4%	80.2%
64	81.8%	81.5%	81.1%	80.8%	80.5%	80.2%	80.0%	79.7%	79.5%	79.3%
65	81.0%	80.7%	80.3%	80.0%	79.7%	79.4%	79.1%	78.8%	78.6%	78.3%
66	80.2%	79.8%	79.4%	79.1%	78.8%	78.5%	78.2%	77.9%	77.6%	77.4%
67	79.3%	78.9%	78.6%	78.2%	77.8%	77.5%	77.2%	76.9%	76.6%	76.4%
68	78.5%	78.0%	77.6%	77.3%	76.9%	76.5%	76.2%	75.9%	75.6%	75.4%
69	77.6%	77.1%	76.7%	76.3%	75.9%	75.5%	75.2%	74.9%	74.6%	74.3%
70	76.6%	76.1%	75.7%	75.3%	74.9%	74.5%	74.1%	73.8%	73.5%	73.2%
71	75.6%	75.1%	74.7%	74.2%	73.8%	73.4%	73.0%	72.7%	72.3%	72.0%
72	74.6%	74.1%	73.6%	73.1%	72.7%	72.2%	71.8%	71.5%	71.1%	70.8%
73	73.5%	73.0%	72.5%	72.0%	71.5%	71.1%	70.6%	70.3%	69.9%	69.6%
74	72.4%	71.8%	71.3%	70.8%	70.3%	69.8%	69.4%	69.0%	68.6%	68.2%
75	71.3%	70.7%	70.1%	69.6%	69.0%	68.6%	68.1%	67.7%	67.3%	66.9%

5 Relative Value Factors For 75% Joint & Survivor with Pop-Up

Participant's	Years by which the Spouse is Older than the Participant									
Age	20	19	18	17	16	15	14	13	12	11
30	97.7%	97.7%	97.6%	97.6%	97.5%	97.4%	97.4%	97.3%	97.2%	97.1%
31	97.7%	97.6%	97.6%	97.5%	97.5%	97.4%	97.3%	97.2%	97.2%	97.1%
32	97.7%	97.6%	97.6%	97.5%	97.4%	97.3%	97.3%	97.2%	97.1%	97.0%
33	97.7%	97.6%	97.5%	97.5%	97.4%	97.3%	97.2%	97.1%	97.0%	97.0%
34	97.6%	97.6%	97.5%	97.4%	97.3%	97.3%	97.2%	97.1%	97.0%	96.9%
35	97.6%	97.5%	97.5%	97.4%	97.3%	97.2%	97.1%	97.0%	96.9%	96.8%
36	97.6%	97.5%	97.4%	97.4%	97.3%	97.2%	97.1%	97.0%	96.9%	96.8%
37	97.6%	97.5%	97.4%	97.3%	97.2%	97.2%	97.1%	96.9%	96.8%	96.7%
38	97.6%	97.5%	97.4%	97.3%	97.2%	97.1%	97.0%	96.9%	96.8%	96.7%
39	97.5%	97.5%	97.4%	97.3%	97.2%	97.1%	97.0%	96.8%	96.7%	96.6%
40	97.5%	97.4%	97.3%	97.2%	97.1%	97.0%	96.9%	96.8%	96.7%	96.5%
41	97.5%	97.4%	97.3%	97.2%	97.1%	97.0%	96.9%	96.7%	96.6%	96.5%
42	97.5%	97.4%	97.3%	97.2%	97.1%	96.9%	96.8%	96.7%	96.5%	96.4%
43	97.4%	97.3%	97.2%	97.1%	97.0%	96.9%	96.8%	96.6%	96.5%	96.3%
44	97.4%	97.3%	97.2%	97.1%	97.0%	96.8%	96.7%	96.5%	96.4%	96.2%
45	97.4%	97.3%	97.2%	97.0%	96.9%	96.8%	96.6%	96.5%	96.3%	96.1%
46	97.4%	97.2%	97.1%	97.0%	96.9%	96.7%	96.6%	96.4%	96.2%	96.1%
47	97.3%	97.2%	97.1%	97.0%	96.8%	96.7%	96.5%	96.3%	96.2%	96.0%
48	97.3%	97.2%	97.0%	96.9%	96.8%	96.6%	96.4%	96.3%	96.1%	95.9%
49	97.3%	97.1%	97.0%	96.9%	96.7%	96.5%	96.4%	96.2%	96.0%	95.8%
50	97.2%	97.1%	96.9%	96.8%	96.6%	96.5%	96.3%	96.1%	95.9%	95.6%
51	97.2%	97.0%	96.9%	96.7%	96.6%	96.4%	96.2%	96.0%	95.8%	95.5%
52	97.1%	97.0%	96.8%	96.7%	96.5%	96.3%	96.1%	95.9%	95.6%	95.4%
53	97.1%	96.9%	96.8%	96.6%	96.4%	96.2%	96.0%	95.8%	95.5%	95.3%
54	97.1%	96.9%	96.7%	96.5%	96.3%	96.1%	95.9%	95.7%	95.4%	95.1%
55	97.0%	96.8%	96.7%	96.5%	96.3%	96.0%	95.8%	95.5%	95.3%	95.0%
56	97.0%	96.8%	96.6%	96.4%	96.2%	95.9%	95.7%	95.4%	95.1%	94.8%
57	96.9%	96.7%	96.5%	96.3%	96.1%	95.9%	95.6%	95.3%	95.0%	94.7%
58	96.9%	96.7%	96.5%	96.3%	96.0%	95.8%	95.5%	95.2%	94.9%	94.6%
59	96.9%	96.7%	96.4%	96.2%	96.0%	95.7%	95.4%	95.1%	94.8%	94.4%
60	96.8%	96.6%	96.4%	96.2%	95.9%	95.6%	95.3%	95.0%	94.7%	94.3%
61	96.8%	96.6%	96.4%	96.1%	95.8%	95.5%	95.2%	94.9%	94.5%	94.2%
62	96.8%	96.5%	96.3%	96.1%	95.8%	95.5%	95.1%	94.8%	94.4%	94.0%
63	96.7%	96.5%	96.3%	96.0%	95.7%	95.4%	95.1%	94.7%	94.3%	93.9%
64	96.7%	96.5%	96.3%	96.0%	95.7%	95.4%	95.0%	94.6%	94.2%	93.8%
65	96.7%	96.5%	96.2%	96.0%	95.7%	95.3%	95.0%	94.6%	94.2%	93.7%
66	96.7%	96.5%	96.2%	95.9%	95.6%	95.3%	94.9%	94.5%	94.1%	93.6%
67	96.7%	96.5%	96.2%	95.9%	95.6%	95.3%	94.9%	94.5%	94.0%	93.6%
68	96.7%	96.5%	96.2%	95.9%	95.6%	95.3%	94.9%	94.4%	94.0%	93.5%
69	96.7%	96.5%	96.2%	95.9%	95.6%	95.2%	94.8%	94.4%	93.9%	93.4%
70	96.7%	96.5%	96.2%	95.9%	95.6%	95.2%	94.8%	94.4%	93.9%	93.4%
71	96.7%	96.4%	96.2%	95.9%	95.6%	95.2%	94.8%	94.3%	93.8%	93.3%
72	96.6%	96.4%	96.1%	95.9%	95.5%	95.2%	94.8%	94.3%	93.8%	93.2%
73	96.6%	96.3%	96.1%	95.8%	95.5%	95.1%	94.7%	94.3%	93.7%	93.2%
74	96.5%	96.3%	96.0%	95.7%	95.4%	95.1%	94.7%	94.2%	93.7%	93.1%
75	96.4%	96.2%	95.9%	95.7%	95.4%	95.0%	94.6%	94.1%	93.6%	93.0%

5 Relative Value Factors For 75% Joint & Survivor with Pop-Up

Participant's	Years by which the Spouse is Older than the Participant										
Age	10	9	8	7	6	5	4	3	2	1	0
30	97.0%	96.9%	96.9%	96.8%	96.7%	96.6%	96.5%	96.4%	96.2%	96.1%	96.0%
31	97.0%	96.9%	96.8%	96.7%	96.6%	96.5%	96.4%	96.3%	96.1%	96.0%	95.9%
32	96.9%	96.8%	96.7%	96.6%	96.5%	96.4%	96.3%	96.2%	96.0%	95.9%	95.8%
33	96.9%	96.8%	96.6%	96.5%	96.4%	96.3%	96.2%	96.1%	95.9%	95.8%	95.7%
34	96.8%	96.7%	96.6%	96.5%	96.3%	96.2%	96.1%	96.0%	95.8%	95.7%	95.5%
35	96.7%	96.6%	96.5%	96.4%	96.3%	96.1%	96.0%	95.8%	95.7%	95.6%	95.4%
36	96.7%	96.5%	96.4%	96.3%	96.2%	96.0%	95.9%	95.7%	95.6%	95.4%	95.3%
37	96.6%	96.5%	96.3%	96.2%	96.1%	95.9%	95.8%	95.6%	95.5%	95.3%	95.1%
38	96.5%	96.4%	96.3%	96.1%	96.0%	95.8%	95.7%	95.5%	95.3%	95.2%	95.0%
39	96.5%	96.3%	96.2%	96.0%	95.9%	95.7%	95.5%	95.4%	95.2%	95.0%	94.8%
40	96.4%	96.2%	96.1%	95.9%	95.8%	95.6%	95.4%	95.2%	95.1%	94.9%	94.7%
41	96.3%	96.2%	96.0%	95.8%	95.7%	95.5%	95.3%	95.1%	94.9%	94.7%	94.5%
42	96.2%	96.1%	95.9%	95.7%	95.5%	95.4%	95.2%	95.0%	94.8%	94.5%	94.3%
43	96.1%	96.0%	95.8%	95.6%	95.4%	95.2%	95.0%	94.8%	94.6%	94.4%	94.2%
44	96.1%	95.9%	95.7%	95.5%	95.3%	95.1%	94.9%	94.6%	94.4%	94.2%	94.0%
45	96.0%	95.8%	95.6%	95.4%	95.2%	94.9%	94.7%	94.5%	94.2%	94.0%	93.8%
46	95.9%	95.7%	95.5%	95.2%	95.0%	94.8%	94.5%	94.3%	94.1%	93.8%	93.5%
47	95.8%	95.6%	95.3%	95.1%	94.9%	94.6%	94.4%	94.1%	93.9%	93.6%	93.3%
48	95.7%	95.4%	95.2%	95.0%	94.7%	94.5%	94.2%	93.9%	93.6%	93.4%	93.1%
49	95.5%	95.3%	95.1%	94.8%	94.6%	94.3%	94.0%	93.7%	93.4%	93.1%	92.8%
50	95.4%	95.2%	94.9%	94.7%	94.4%	94.1%	93.8%	93.5%	93.2%	92.9%	92.5%
51	95.3%	95.0%	94.8%	94.5%	94.2%	93.9%	93.6%	93.3%	92.9%	92.6%	92.3%
52	95.1%	94.9%	94.6%	94.3%	94.0%	93.7%	93.4%	93.0%	92.7%	92.3%	92.0%
53	95.0%	94.7%	94.4%	94.1%	93.8%	93.5%	93.1%	92.8%	92.4%	92.0%	91.7%
54	94.9%	94.6%	94.2%	93.9%	93.6%	93.2%	92.9%	92.5%	92.1%	91.7%	91.3%
55	94.7%	94.4%	94.1%	93.7%	93.4%	93.0%	92.6%	92.2%	91.8%	91.4%	91.0%
56	94.5%	94.2%	93.9%	93.5%	93.1%	92.7%	92.3%	91.9%	91.5%	91.1%	90.6%
57	94.4%	94.0%	93.7%	93.3%	92.9%	92.5%	92.1%	91.6%	91.2%	90.7%	90.3%
58	94.2%	93.9%	93.5%	93.1%	92.7%	92.3%	91.8%	91.4%	90.9%	90.4%	89.9%
59	94.1%	93.7%	93.3%	92.9%	92.4%	92.0%	91.5%	91.1%	90.6%	90.1%	89.5%
60	93.9%	93.5%	93.1%	92.7%	92.2%	91.7%	91.2%	90.7%	90.2%	89.7%	89.2%
61	93.8%	93.3%	92.9%	92.4%	92.0%	91.5%	91.0%	90.4%	89.9%	89.3%	88.8%
62	93.6%	93.2%	92.7%	92.2%	91.7%	91.2%	90.7%	90.1%	89.5%	89.0%	88.4%
63	93.5%	93.0%	92.5%	92.0%	91.5%	90.9%	90.4%	89.8%	89.2%	88.6%	88.0%
64	93.3%	92.9%	92.4%	91.8%	91.3%	90.7%	90.1%	89.5%	88.9%	88.2%	87.6%
65	93.2%	92.7%	92.2%	91.6%	91.1%	90.5%	89.8%	89.2%	88.5%	87.9%	87.2%
66	93.1%	92.6%	92.0%	91.5%	90.9%	90.2%	89.6%	88.9%	88.2%	87.5%	86.8%
67	93.0%	92.5%	91.9%	91.3%	90.7%	90.0%	89.3%	88.6%	87.9%	87.1%	86.4%
68	93.0%	92.4%	91.8%	91.2%	90.5%	89.8%	89.1%	88.3%	87.6%	86.8%	86.0%
69	92.9%	92.3%	91.7%	91.0%	90.3%	89.6%	88.8%	88.1%	87.2%	86.4%	85.6%
70	92.8%	92.2%	91.5%	90.9%	90.1%	89.4%	88.6%	87.8%	86.9%	86.1%	85.2%
71	92.7%	92.1%	91.4%	90.7%	89.9%	89.2%	88.3%	87.5%	86.6%	85.7%	84.8%
72	92.6%	92.0%	91.3%	90.5%	89.8%	88.9%	88.1%	87.2%	86.2%	85.3%	84.3%
73	92.5%	91.9%	91.2%	90.4%	89.6%	88.7%	87.8%	86.9%	85.9%	84.9%	83.9%
74	92.5%	91.8%	91.0%	90.2%	89.4%	88.5%	87.5%	86.6%	85.5%	84.5%	83.4%
75	92.4%	91.6%	90.9%	90.1%	89.2%	88.3%	87.3%	86.3%	85.2%	84.1%	83.0%

5 Relative Value Factors For 75% Joint & Survivor with Pop-Up

Participant's	Years by which the Spouse is Younger than the Participant									
Age	1	2	3	4	5	6	7	8	9	10
30	95.9%	95.8%	95.7%	95.5%	95.4%	95.3%	95.2%	95.1%	94.9%	94.8%
31	95.8%	95.7%	95.5%	95.4%	95.3%	95.1%	95.0%	94.9%	94.8%	94.6%
32	95.7%	95.5%	95.4%	95.3%	95.1%	95.0%	94.9%	94.7%	94.6%	94.5%
33	95.5%	95.4%	95.3%	95.1%	95.0%	94.8%	94.7%	94.6%	94.4%	94.3%
34	95.4%	95.3%	95.1%	95.0%	94.8%	94.7%	94.5%	94.4%	94.2%	94.1%
35	95.3%	95.1%	95.0%	94.8%	94.6%	94.5%	94.3%	94.2%	94.0%	93.9%
36	95.1%	95.0%	94.8%	94.6%	94.5%	94.3%	94.2%	94.0%	93.8%	93.7%
37	95.0%	94.8%	94.6%	94.5%	94.3%	94.1%	94.0%	93.8%	93.6%	93.4%
38	94.8%	94.6%	94.5%	94.3%	94.1%	93.9%	93.7%	93.6%	93.4%	93.2%
39	94.7%	94.5%	94.3%	94.1%	93.9%	93.7%	93.5%	93.3%	93.2%	93.0%
40	94.5%	94.3%	94.1%	93.9%	93.7%	93.5%	93.3%	93.1%	92.9%	92.7%
41	94.3%	94.1%	93.9%	93.7%	93.5%	93.3%	93.1%	92.9%	92.6%	92.4%
42	94.1%	93.9%	93.7%	93.5%	93.2%	93.0%	92.8%	92.6%	92.4%	92.2%
43	93.9%	93.7%	93.5%	93.2%	93.0%	92.8%	92.5%	92.3%	92.1%	91.9%
44	93.7%	93.5%	93.2%	93.0%	92.7%	92.5%	92.3%	92.0%	91.8%	91.5%
45	93.5%	93.2%	93.0%	92.7%	92.5%	92.2%	92.0%	91.7%	91.5%	91.2%
46	93.3%	93.0%	92.7%	92.5%	92.2%	91.9%	91.7%	91.4%	91.1%	90.9%
47	93.0%	92.7%	92.5%	92.2%	91.9%	91.6%	91.3%	91.0%	90.8%	90.5%
48	92.8%	92.5%	92.2%	91.9%	91.6%	91.3%	91.0%	90.7%	90.4%	90.1%
49	92.5%	92.2%	91.9%	91.6%	91.2%	90.9%	90.6%	90.3%	90.0%	89.7%
50	92.2%	91.9%	91.6%	91.2%	90.9%	90.6%	90.2%	89.9%	89.6%	89.2%
51	91.9%	91.6%	91.2%	90.9%	90.5%	90.2%	89.8%	89.5%	89.1%	88.8%
52	91.6%	91.2%	90.9%	90.5%	90.1%	89.8%	89.4%	89.0%	88.7%	88.3%
53	91.3%	90.9%	90.5%	90.1%	89.7%	89.3%	88.9%	88.5%	88.2%	87.8%
54	90.9%	90.5%	90.1%	89.7%	89.3%	88.9%	88.5%	88.1%	87.7%	87.3%
55	90.6%	90.1%	89.7%	89.3%	88.8%	88.4%	88.0%	87.5%	87.1%	86.7%
56	90.2%	89.7%	89.3%	88.8%	88.4%	87.9%	87.5%	87.0%	86.6%	86.1%
57	89.8%	89.3%	88.9%	88.4%	87.9%	87.4%	86.9%	86.5%	86.0%	85.5%
58	89.4%	88.9%	88.4%	87.9%	87.4%	86.9%	86.4%	85.9%	85.4%	84.9%
59	89.0%	88.5%	88.0%	87.4%	86.9%	86.4%	85.8%	85.3%	84.8%	84.3%
60	88.6%	88.1%	87.5%	86.9%	86.4%	85.8%	85.3%	84.7%	84.2%	83.6%
61	88.2%	87.6%	87.0%	86.4%	85.8%	85.2%	84.7%	84.1%	83.5%	82.9%
62	87.8%	87.2%	86.5%	85.9%	85.3%	84.7%	84.1%	83.5%	82.8%	82.3%
63	87.3%	86.7%	86.0%	85.4%	84.7%	84.1%	83.4%	82.8%	82.2%	81.6%
64	86.9%	86.2%	85.6%	84.9%	84.2%	83.5%	82.8%	82.2%	81.5%	80.8%
65	86.5%	85.8%	85.1%	84.3%	83.6%	82.9%	82.2%	81.5%	80.8%	80.1%
66	86.0%	85.3%	84.6%	83.8%	83.1%	82.3%	81.6%	80.8%	80.1%	79.4%
67	85.6%	84.8%	84.1%	83.3%	82.5%	81.7%	80.9%	80.2%	79.4%	78.6%
68	85.2%	84.4%	83.6%	82.7%	81.9%	81.1%	80.3%	79.5%	78.7%	77.9%
69	84.7%	83.9%	83.0%	82.2%	81.3%	80.5%	79.6%	78.8%	77.9%	77.1%
70	84.3%	83.4%	82.5%	81.6%	80.7%	79.8%	78.9%	78.0%	77.1%	76.3%
71	83.8%	82.9%	81.9%	81.0%	80.1%	79.1%	78.2%	77.3%	76.3%	75.4%
72	83.3%	82.4%	81.4%	80.4%	79.4%	78.4%	77.4%	76.5%	75.5%	74.6%
73	82.9%	81.8%	80.8%	79.7%	78.7%	77.7%	76.6%	75.6%	74.6%	73.7%
74	82.4%	81.3%	80.2%	79.1%	78.0%	76.9%	75.8%	74.8%	73.7%	72.7%
75	81.9%	80.7%	79.6%	78.4%	77.3%	76.1%	75.0%	73.9%	72.8%	71.8%

5 Relative Value Factors For 75% Joint & Survivor with Pop-Up

Participant's	Years by which the Spouse is Younger than the Participant									
Age	11	12	13	14	15	16	17	18	19	20
30	94.7%	94.6%	94.5%	94.4%	94.3%	94.2%	94.0%	93.9%	93.8%	93.8%
31	94.5%	94.4%	94.3%	94.2%	94.1%	93.9%	93.8%	93.7%	93.6%	93.5%
32	94.3%	94.2%	94.1%	94.0%	93.8%	93.7%	93.6%	93.5%	93.4%	93.3%
33	94.1%	94.0%	93.9%	93.8%	93.6%	93.5%	93.4%	93.3%	93.2%	93.0%
34	93.9%	93.8%	93.7%	93.5%	93.4%	93.3%	93.1%	93.0%	92.9%	92.8%
35	93.7%	93.6%	93.4%	93.3%	93.2%	93.0%	92.9%	92.8%	92.6%	92.5%
36	93.5%	93.4%	93.2%	93.1%	92.9%	92.8%	92.6%	92.5%	92.4%	92.2%
37	93.3%	93.1%	93.0%	92.8%	92.6%	92.5%	92.4%	92.2%	92.1%	91.9%
38	93.0%	92.9%	92.7%	92.5%	92.4%	92.2%	92.1%	91.9%	91.8%	91.6%
39	92.8%	92.6%	92.4%	92.3%	92.1%	91.9%	91.8%	91.6%	91.5%	91.3%
40	92.5%	92.3%	92.1%	92.0%	91.8%	91.6%	91.4%	91.3%	91.1%	91.0%
41	92.2%	92.0%	91.8%	91.7%	91.5%	91.3%	91.1%	90.9%	90.8%	90.6%
42	91.9%	91.7%	91.5%	91.3%	91.1%	90.9%	90.8%	90.6%	90.4%	90.2%
43	91.6%	91.4%	91.2%	91.0%	90.8%	90.6%	90.4%	90.2%	90.0%	89.8%
44	91.3%	91.1%	90.8%	90.6%	90.4%	90.2%	90.0%	89.8%	89.6%	89.4%
45	91.0%	90.7%	90.5%	90.2%	90.0%	89.8%	89.6%	89.4%	89.2%	89.0%
46	90.6%	90.3%	90.1%	89.8%	89.6%	89.4%	89.2%	88.9%	88.7%	88.5%
47	90.2%	89.9%	89.7%	89.4%	89.2%	88.9%	88.7%	88.5%	88.2%	88.0%
48	89.8%	89.5%	89.3%	89.0%	88.7%	88.5%	88.2%	88.0%	87.7%	87.5%
49	89.4%	89.1%	88.8%	88.5%	88.2%	88.0%	87.7%	87.5%	87.2%	87.0%
50	88.9%	88.6%	88.3%	88.0%	87.7%	87.4%	87.2%	86.9%	86.6%	86.4%
51	88.5%	88.1%	87.8%	87.5%	87.2%	86.9%	86.6%	86.3%	86.1%	85.8%
52	88.0%	87.6%	87.3%	86.9%	86.6%	86.3%	86.0%	85.7%	85.4%	85.2%
53	87.4%	87.1%	86.7%	86.4%	86.0%	85.7%	85.4%	85.1%	84.8%	84.5%
54	86.9%	86.5%	86.1%	85.8%	85.4%	85.1%	84.7%	84.4%	84.1%	83.8%
55	86.3%	85.9%	85.5%	85.1%	84.8%	84.4%	84.0%	83.7%	83.4%	83.1%
56	85.7%	85.3%	84.9%	84.5%	84.1%	83.7%	83.3%	83.0%	82.6%	82.3%
57	85.1%	84.6%	84.2%	83.8%	83.4%	83.0%	82.6%	82.2%	81.9%	81.5%
58	84.4%	84.0%	83.5%	83.1%	82.7%	82.2%	81.8%	81.4%	81.1%	80.7%
59	83.8%	83.3%	82.8%	82.4%	81.9%	81.5%	81.0%	80.6%	80.2%	79.9%
60	83.1%	82.6%	82.1%	81.6%	81.1%	80.7%	80.2%	79.8%	79.4%	79.0%
61	82.4%	81.9%	81.3%	80.8%	80.3%	79.8%	79.4%	78.9%	78.5%	78.1%
62	81.7%	81.1%	80.6%	80.0%	79.5%	79.0%	78.5%	78.0%	77.6%	77.1%
63	80.9%	80.4%	79.8%	79.2%	78.7%	78.1%	77.6%	77.1%	76.7%	76.2%
64	80.2%	79.6%	79.0%	78.4%	77.8%	77.3%	76.7%	76.2%	75.7%	75.2%
65	79.5%	78.8%	78.2%	77.5%	76.9%	76.4%	75.8%	75.2%	74.7%	74.2%
66	78.7%	78.0%	77.3%	76.7%	76.0%	75.4%	74.8%	74.3%	73.7%	73.2%
67	77.9%	77.2%	76.5%	75.8%	75.1%	74.5%	73.9%	73.3%	72.7%	72.2%
68	77.1%	76.4%	75.6%	74.9%	74.2%	73.6%	72.9%	72.3%	71.7%	71.1%
69	76.3%	75.5%	74.7%	74.0%	73.3%	72.6%	71.9%	71.2%	70.6%	70.0%
70	75.4%	74.6%	73.8%	73.0%	72.3%	71.6%	70.9%	70.2%	69.5%	68.9%
71	74.6%	73.7%	72.9%	72.1%	71.3%	70.5%	69.8%	69.1%	68.4%	67.7%
72	73.6%	72.8%	71.9%	71.0%	70.2%	69.4%	68.6%	67.9%	67.2%	66.5%
73	72.7%	71.8%	70.9%	70.0%	69.1%	68.3%	67.5%	66.7%	66.0%	65.3%
74	71.7%	70.8%	69.8%	68.9%	68.0%	67.1%	66.3%	65.5%	64.7%	64.0%
75	70.7%	69.7%	68.7%	67.8%	66.8%	66.0%	65.1%	64.3%	63.5%	62.7%

5 Relative Value Factors For 75% Joint & Survivor with Pop-Up

Participant's	Years by which the Spouse is Younger than the Participant									
Age	21	22	23	24	25	26	27	28	29	30
30	93.7%	93.6%	93.5%	93.4%	93.3%	93.3%	93.2%	93.1%	93.1%	93.0%
31	93.4%	93.3%	93.2%	93.2%	93.1%	93.0%	92.9%	92.9%	92.8%	92.7%
32	93.2%	93.1%	93.0%	92.9%	92.8%	92.7%	92.7%	92.6%	92.5%	92.5%
33	92.9%	92.8%	92.7%	92.6%	92.5%	92.5%	92.4%	92.3%	92.2%	92.2%
34	92.7%	92.6%	92.5%	92.4%	92.3%	92.2%	92.1%	92.0%	91.9%	91.9%
35	92.4%	92.3%	92.2%	92.1%	92.0%	91.9%	91.8%	91.7%	91.6%	91.5%
36	92.1%	92.0%	91.9%	91.8%	91.7%	91.6%	91.5%	91.4%	91.3%	91.2%
37	91.8%	91.7%	91.6%	91.5%	91.3%	91.2%	91.1%	91.0%	91.0%	90.9%
38	91.5%	91.4%	91.2%	91.1%	91.0%	90.9%	90.8%	90.7%	90.6%	90.5%
39	91.2%	91.0%	90.9%	90.8%	90.6%	90.5%	90.4%	90.3%	90.2%	90.1%
40	90.8%	90.7%	90.5%	90.4%	90.3%	90.2%	90.0%	89.9%	89.8%	89.7%
41	90.4%	90.3%	90.2%	90.0%	89.9%	89.8%	89.6%	89.5%	89.4%	89.3%
42	90.1%	89.9%	89.8%	89.6%	89.5%	89.3%	89.2%	89.1%	89.0%	88.9%
43	89.7%	89.5%	89.3%	89.2%	89.0%	88.9%	88.8%	88.6%	88.5%	88.4%
44	89.2%	89.1%	88.9%	88.7%	88.6%	88.4%	88.3%	88.2%	88.0%	87.9%
45	88.8%	88.6%	88.4%	88.3%	88.1%	87.9%	87.8%	87.7%	87.5%	87.4%
46	88.3%	88.1%	87.9%	87.8%	87.6%	87.4%	87.3%	87.1%	87.0%	86.9%
47	87.8%	87.6%	87.4%	87.2%	87.1%	86.9%	86.7%	86.6%	86.4%	86.3%
48	87.3%	87.1%	86.9%	86.7%	86.5%	86.3%	86.2%	86.0%	85.9%	85.7%
49	86.7%	86.5%	86.3%	86.1%	85.9%	85.7%	85.6%	85.4%	85.2%	85.1%
50	86.2%	85.9%	85.7%	85.5%	85.3%	85.1%	84.9%	84.7%	84.6%	84.4%
51	85.5%	85.3%	85.1%	84.8%	84.6%	84.4%	84.2%	84.1%	83.9%	83.7%
52	84.9%	84.6%	84.4%	84.2%	83.9%	83.7%	83.5%	83.3%	83.2%	83.0%
53	84.2%	84.0%	83.7%	83.5%	83.2%	83.0%	82.8%	82.6%	82.4%	82.2%
54	83.5%	83.2%	83.0%	82.7%	82.5%	82.2%	82.0%	81.8%	81.6%	81.4%
55	82.8%	82.5%	82.2%	81.9%	81.7%	81.4%	81.2%	81.0%	80.8%	80.6%
56	82.0%	81.7%	81.4%	81.1%	80.8%	80.6%	80.4%	80.1%	79.9%	79.7%
57	81.2%	80.9%	80.6%	80.3%	80.0%	79.7%	79.5%	79.2%	79.0%	78.8%
58	80.4%	80.0%	79.7%	79.4%	79.1%	78.8%	78.6%	78.3%	78.1%	77.9%
59	79.5%	79.1%	78.8%	78.5%	78.2%	77.9%	77.6%	77.4%	77.1%	76.9%
60	78.6%	78.2%	77.9%	77.6%	77.2%	76.9%	76.7%	76.4%	76.1%	75.9%
61	77.7%	77.3%	76.9%	76.6%	76.3%	75.9%	75.6%	75.4%	75.1%	74.9%
62	76.7%	76.3%	76.0%	75.6%	75.2%	74.9%	74.6%	74.3%	74.0%	73.8%
63	75.8%	75.3%	74.9%	74.6%	74.2%	73.9%	73.5%	73.2%	73.0%	72.7%
64	74.8%	74.3%	73.9%	73.5%	73.1%	72.8%	72.5%	72.1%	71.8%	71.6%
65	73.8%	73.3%	72.9%	72.4%	72.1%	71.7%	71.3%	71.0%	70.7%	70.4%
66	72.7%	72.2%	71.8%	71.3%	70.9%	70.5%	70.2%	69.8%	69.5%	69.2%
67	71.7%	71.2%	70.7%	70.2%	69.8%	69.4%	69.0%	68.7%	68.3%	68.0%
68	70.6%	70.0%	69.6%	69.1%	68.6%	68.2%	67.8%	67.5%	67.1%	66.8%
69	69.5%	68.9%	68.4%	67.9%	67.4%	67.0%	66.6%	66.2%	65.8%	65.5%
70	68.3%	67.7%	67.2%	66.7%	66.2%	65.7%	65.3%	64.9%	64.5%	64.2%
71	67.1%	66.5%	66.0%	65.4%	64.9%	64.4%	64.0%	63.6%	63.2%	62.8%
72	65.9%	65.3%	64.7%	64.1%	63.6%	63.1%	62.6%	62.2%	61.8%	61.4%
73	64.6%	64.0%	63.4%	62.8%	62.2%	61.7%	61.2%	60.8%	60.4%	60.0%
74	63.3%	62.6%	62.0%	61.4%	60.8%	60.3%	59.8%	59.3%	58.9%	58.5%
75	62.0%	61.3%	60.6%	60.0%	59.4%	58.9%	58.3%	57.9%	57.4%	57.0%

6 Relative Value Factors For 100% Joint & Survivor with Pop-Up

Participant's	Years by which the Spouse is Older than the Participant									
Age	20	19	18	17	16	15	14	13	12	11
30	97.0%	96.9%	96.8%	96.7%	96.7%	96.6%	96.5%	96.4%	96.3%	96.2%
31	96.9%	96.9%	96.8%	96.7%	96.6%	96.5%	96.4%	96.3%	96.2%	96.1%
32	96.9%	96.8%	96.7%	96.7%	96.6%	96.5%	96.4%	96.3%	96.1%	96.0%
33	96.9%	96.8%	96.7%	96.6%	96.5%	96.4%	96.3%	96.2%	96.1%	95.9%
34	96.8%	96.8%	96.7%	96.6%	96.5%	96.4%	96.2%	96.1%	96.0%	95.9%
35	96.8%	96.7%	96.6%	96.5%	96.4%	96.3%	96.2%	96.1%	95.9%	95.8%
36	96.8%	96.7%	96.6%	96.5%	96.4%	96.3%	96.1%	96.0%	95.9%	95.7%
37	96.8%	96.7%	96.6%	96.5%	96.3%	96.2%	96.1%	95.9%	95.8%	95.6%
38	96.7%	96.6%	96.5%	96.4%	96.3%	96.2%	96.0%	95.9%	95.7%	95.6%
39	96.7%	96.6%	96.5%	96.4%	96.2%	96.1%	96.0%	95.8%	95.6%	95.5%
40	96.7%	96.6%	96.5%	96.3%	96.2%	96.0%	95.9%	95.7%	95.6%	95.4%
41	96.7%	96.5%	96.4%	96.3%	96.1%	96.0%	95.8%	95.7%	95.5%	95.3%
42	96.6%	96.5%	96.4%	96.2%	96.1%	95.9%	95.8%	95.6%	95.4%	95.2%
43	96.6%	96.5%	96.3%	96.2%	96.0%	95.9%	95.7%	95.5%	95.3%	95.1%
44	96.6%	96.4%	96.3%	96.1%	96.0%	95.8%	95.6%	95.4%	95.2%	95.0%
45	96.5%	96.4%	96.2%	96.1%	95.9%	95.7%	95.5%	95.3%	95.1%	94.9%
46	96.5%	96.3%	96.2%	96.0%	95.8%	95.6%	95.4%	95.2%	95.0%	94.8%
47	96.4%	96.3%	96.1%	96.0%	95.8%	95.6%	95.4%	95.1%	94.9%	94.6%
48	96.4%	96.2%	96.1%	95.9%	95.7%	95.5%	95.3%	95.0%	94.8%	94.5%
49	96.4%	96.2%	96.0%	95.8%	95.6%	95.4%	95.2%	94.9%	94.7%	94.4%
50	96.3%	96.1%	95.9%	95.7%	95.5%	95.3%	95.1%	94.8%	94.5%	94.2%
51	96.3%	96.1%	95.9%	95.7%	95.4%	95.2%	94.9%	94.7%	94.4%	94.1%
52	96.2%	96.0%	95.8%	95.6%	95.3%	95.1%	94.8%	94.5%	94.2%	93.9%
53	96.1%	95.9%	95.7%	95.5%	95.2%	95.0%	94.7%	94.4%	94.1%	93.7%
54	96.1%	95.9%	95.6%	95.4%	95.1%	94.9%	94.6%	94.2%	93.9%	93.6%
55	96.0%	95.8%	95.6%	95.3%	95.0%	94.7%	94.4%	94.1%	93.7%	93.4%
56	96.0%	95.7%	95.5%	95.2%	94.9%	94.6%	94.3%	93.9%	93.6%	93.2%
57	95.9%	95.7%	95.4%	95.1%	94.8%	94.5%	94.2%	93.8%	93.4%	93.0%
58	95.9%	95.6%	95.3%	95.0%	94.7%	94.4%	94.0%	93.7%	93.3%	92.8%
59	95.8%	95.6%	95.3%	95.0%	94.6%	94.3%	93.9%	93.5%	93.1%	92.6%
60	95.8%	95.5%	95.2%	94.9%	94.6%	94.2%	93.8%	93.4%	92.9%	92.5%
61	95.7%	95.5%	95.2%	94.8%	94.5%	94.1%	93.7%	93.2%	92.8%	92.3%
62	95.7%	95.4%	95.1%	94.8%	94.4%	94.0%	93.6%	93.1%	92.6%	92.1%
63	95.7%	95.4%	95.1%	94.7%	94.3%	93.9%	93.5%	93.0%	92.5%	92.0%
64	95.7%	95.4%	95.0%	94.7%	94.3%	93.9%	93.4%	92.9%	92.4%	91.8%
65	95.6%	95.3%	95.0%	94.6%	94.2%	93.8%	93.3%	92.8%	92.3%	91.7%
66	95.6%	95.3%	95.0%	94.6%	94.2%	93.8%	93.3%	92.8%	92.2%	91.6%
67	95.6%	95.3%	95.0%	94.6%	94.2%	93.7%	93.2%	92.7%	92.1%	91.5%
68	95.6%	95.3%	95.0%	94.6%	94.2%	93.7%	93.2%	92.7%	92.1%	91.4%
69	95.6%	95.3%	95.0%	94.6%	94.2%	93.7%	93.2%	92.6%	92.0%	91.4%
70	95.6%	95.3%	95.0%	94.6%	94.2%	93.7%	93.2%	92.6%	92.0%	91.3%
71	95.6%	95.3%	94.9%	94.6%	94.1%	93.7%	93.1%	92.5%	91.9%	91.2%
72	95.5%	95.2%	94.9%	94.5%	94.1%	93.6%	93.1%	92.5%	91.8%	91.1%
73	95.4%	95.1%	94.8%	94.5%	94.0%	93.6%	93.0%	92.4%	91.7%	91.0%
74	95.3%	95.0%	94.7%	94.4%	94.0%	93.5%	92.9%	92.3%	91.7%	90.9%
75	95.2%	94.9%	94.6%	94.3%	93.8%	93.4%	92.8%	92.2%	91.6%	90.8%

6 Relative Value Factors For 100% Joint & Survivor with Pop-Up

Participant's	Years by which the Spouse is Older than the Participant										
Age	10	9	8	7	6	5	4	3	2	1	0
30	96.1%	95.9%	95.8%	95.7%	95.6%	95.4%	95.3%	95.2%	95.0%	94.9%	94.7%
31	96.0%	95.9%	95.7%	95.6%	95.5%	95.3%	95.2%	95.0%	94.9%	94.7%	94.6%
32	95.9%	95.8%	95.6%	95.5%	95.4%	95.2%	95.1%	94.9%	94.7%	94.6%	94.4%
33	95.8%	95.7%	95.5%	95.4%	95.2%	95.1%	94.9%	94.8%	94.6%	94.4%	94.3%
34	95.7%	95.6%	95.4%	95.3%	95.1%	95.0%	94.8%	94.6%	94.5%	94.3%	94.1%
35	95.7%	95.5%	95.4%	95.2%	95.0%	94.9%	94.7%	94.5%	94.3%	94.1%	93.9%
36	95.6%	95.4%	95.3%	95.1%	94.9%	94.7%	94.5%	94.4%	94.2%	94.0%	93.8%
37	95.5%	95.3%	95.1%	95.0%	94.8%	94.6%	94.4%	94.2%	94.0%	93.8%	93.6%
38	95.4%	95.2%	95.0%	94.9%	94.7%	94.5%	94.3%	94.0%	93.8%	93.6%	93.4%
39	95.3%	95.1%	94.9%	94.7%	94.5%	94.3%	94.1%	93.9%	93.7%	93.4%	93.2%
40	95.2%	95.0%	94.8%	94.6%	94.4%	94.2%	93.9%	93.7%	93.5%	93.2%	93.0%
41	95.1%	94.9%	94.7%	94.5%	94.2%	94.0%	93.8%	93.5%	93.3%	93.0%	92.8%
42	95.0%	94.8%	94.6%	94.3%	94.1%	93.8%	93.6%	93.3%	93.1%	92.8%	92.5%
43	94.9%	94.7%	94.4%	94.2%	93.9%	93.7%	93.4%	93.1%	92.9%	92.6%	92.3%
44	94.8%	94.5%	94.3%	94.0%	93.8%	93.5%	93.2%	92.9%	92.6%	92.3%	92.0%
45	94.6%	94.4%	94.1%	93.9%	93.6%	93.3%	93.0%	92.7%	92.4%	92.1%	91.8%
46	94.5%	94.3%	94.0%	93.7%	93.4%	93.1%	92.8%	92.5%	92.2%	91.8%	91.5%
47	94.4%	94.1%	93.8%	93.5%	93.2%	92.9%	92.6%	92.2%	91.9%	91.5%	91.2%
48	94.2%	94.0%	93.7%	93.3%	93.0%	92.7%	92.3%	92.0%	91.6%	91.3%	90.9%
49	94.1%	93.8%	93.5%	93.1%	92.8%	92.5%	92.1%	91.7%	91.3%	91.0%	90.6%
50	93.9%	93.6%	93.3%	92.9%	92.6%	92.2%	91.8%	91.4%	91.0%	90.6%	90.2%
51	93.8%	93.4%	93.1%	92.7%	92.3%	92.0%	91.6%	91.1%	90.7%	90.3%	89.9%
52	93.6%	93.2%	92.9%	92.5%	92.1%	91.7%	91.3%	90.8%	90.4%	89.9%	89.5%
53	93.4%	93.0%	92.6%	92.2%	91.8%	91.4%	91.0%	90.5%	90.0%	89.6%	89.1%
54	93.2%	92.8%	92.4%	92.0%	91.6%	91.1%	90.6%	90.2%	89.7%	89.2%	88.7%
55	93.0%	92.6%	92.2%	91.7%	91.3%	90.8%	90.3%	89.8%	89.3%	88.8%	88.2%
56	92.8%	92.4%	91.9%	91.5%	91.0%	90.5%	90.0%	89.4%	88.9%	88.3%	87.8%
57	92.6%	92.1%	91.7%	91.2%	90.7%	90.2%	89.6%	89.1%	88.5%	87.9%	87.3%
58	92.4%	91.9%	91.4%	90.9%	90.4%	89.8%	89.3%	88.7%	88.1%	87.5%	86.9%
59	92.2%	91.7%	91.2%	90.6%	90.1%	89.5%	88.9%	88.3%	87.7%	87.1%	86.4%
60	92.0%	91.5%	90.9%	90.4%	89.8%	89.2%	88.6%	87.9%	87.3%	86.6%	85.9%
61	91.8%	91.2%	90.7%	90.1%	89.5%	88.8%	88.2%	87.5%	86.8%	86.1%	85.4%
62	91.6%	91.0%	90.4%	89.8%	89.2%	88.5%	87.8%	87.1%	86.4%	85.7%	84.9%
63	91.4%	90.8%	90.2%	89.5%	88.9%	88.2%	87.5%	86.7%	86.0%	85.2%	84.4%
64	91.2%	90.6%	90.0%	89.3%	88.6%	87.9%	87.1%	86.3%	85.6%	84.8%	83.9%
65	91.1%	90.5%	89.8%	89.1%	88.3%	87.6%	86.8%	86.0%	85.1%	84.3%	83.5%
66	91.0%	90.3%	89.6%	88.8%	88.1%	87.3%	86.4%	85.6%	84.7%	83.9%	83.0%
67	90.9%	90.1%	89.4%	88.6%	87.8%	87.0%	86.1%	85.2%	84.3%	83.4%	82.5%
68	90.7%	90.0%	89.3%	88.4%	87.6%	86.7%	85.8%	84.9%	83.9%	83.0%	82.0%
69	90.6%	89.9%	89.1%	88.3%	87.4%	86.5%	85.5%	84.5%	83.5%	82.5%	81.5%
70	90.5%	89.8%	88.9%	88.1%	87.1%	86.2%	85.2%	84.2%	83.1%	82.1%	81.0%
71	90.4%	89.6%	88.8%	87.9%	86.9%	85.9%	84.9%	83.8%	82.7%	81.6%	80.5%
72	90.3%	89.5%	88.6%	87.7%	86.7%	85.6%	84.6%	83.4%	82.3%	81.1%	80.0%
73	90.2%	89.4%	88.4%	87.5%	86.4%	85.4%	84.2%	83.1%	81.9%	80.7%	79.4%
74	90.1%	89.2%	88.3%	87.3%	86.2%	85.1%	83.9%	82.7%	81.4%	80.2%	78.9%
75	90.0%	89.1%	88.1%	87.1%	86.0%	84.8%	83.6%	82.3%	81.0%	79.7%	78.3%

6 Relative Value Factors For 100% Joint & Survivor with Pop-Up

Participant's	Years by which the Spouse is Younger than the Participant									
Age	1	2	3	4	5	6	7	8	9	10
30	94.6%	94.4%	94.2%	94.1%	93.9%	93.8%	93.6%	93.5%	93.3%	93.2%
31	94.4%	94.2%	94.1%	93.9%	93.7%	93.6%	93.4%	93.3%	93.1%	92.9%
32	94.2%	94.1%	93.9%	93.7%	93.6%	93.4%	93.2%	93.0%	92.9%	92.7%
33	94.1%	93.9%	93.7%	93.5%	93.4%	93.2%	93.0%	92.8%	92.6%	92.5%
34	93.9%	93.7%	93.5%	93.3%	93.1%	93.0%	92.8%	92.6%	92.4%	92.2%
35	93.7%	93.5%	93.3%	93.1%	92.9%	92.7%	92.5%	92.3%	92.1%	91.9%
36	93.5%	93.3%	93.1%	92.9%	92.7%	92.5%	92.3%	92.1%	91.9%	91.7%
37	93.4%	93.1%	92.9%	92.7%	92.5%	92.3%	92.0%	91.8%	91.6%	91.4%
38	93.2%	92.9%	92.7%	92.5%	92.2%	92.0%	91.8%	91.5%	91.3%	91.1%
39	92.9%	92.7%	92.5%	92.2%	92.0%	91.7%	91.5%	91.2%	91.0%	90.8%
40	92.7%	92.5%	92.2%	92.0%	91.7%	91.4%	91.2%	90.9%	90.7%	90.4%
41	92.5%	92.2%	92.0%	91.7%	91.4%	91.1%	90.9%	90.6%	90.3%	90.1%
42	92.2%	92.0%	91.7%	91.4%	91.1%	90.8%	90.5%	90.3%	90.0%	89.7%
43	92.0%	91.7%	91.4%	91.1%	90.8%	90.5%	90.2%	89.9%	89.6%	89.3%
44	91.7%	91.4%	91.1%	90.8%	90.5%	90.2%	89.8%	89.5%	89.2%	88.9%
45	91.4%	91.1%	90.8%	90.5%	90.1%	89.8%	89.5%	89.1%	88.8%	88.5%
46	91.1%	90.8%	90.5%	90.1%	89.8%	89.4%	89.1%	88.7%	88.4%	88.1%
47	90.8%	90.5%	90.1%	89.7%	89.4%	89.0%	88.7%	88.3%	87.9%	87.6%
48	90.5%	90.1%	89.7%	89.4%	89.0%	88.6%	88.2%	87.8%	87.5%	87.1%
49	90.2%	89.8%	89.4%	89.0%	88.5%	88.1%	87.7%	87.4%	87.0%	86.6%
50	89.8%	89.4%	89.0%	88.5%	88.1%	87.7%	87.3%	86.8%	86.4%	86.0%
51	89.4%	89.0%	88.5%	88.1%	87.6%	87.2%	86.7%	86.3%	85.9%	85.5%
52	89.0%	88.5%	88.1%	87.6%	87.1%	86.7%	86.2%	85.7%	85.3%	84.9%
53	88.6%	88.1%	87.6%	87.1%	86.6%	86.1%	85.6%	85.2%	84.7%	84.2%
54	88.1%	87.6%	87.1%	86.6%	86.1%	85.6%	85.0%	84.5%	84.0%	83.6%
55	87.7%	87.1%	86.6%	86.0%	85.5%	85.0%	84.4%	83.9%	83.4%	82.9%
56	87.2%	86.6%	86.1%	85.5%	84.9%	84.4%	83.8%	83.2%	82.7%	82.2%
57	86.7%	86.1%	85.5%	84.9%	84.3%	83.7%	83.1%	82.6%	82.0%	81.4%
58	86.3%	85.6%	85.0%	84.4%	83.7%	83.1%	82.5%	81.9%	81.3%	80.7%
59	85.8%	85.1%	84.4%	83.8%	83.1%	82.4%	81.8%	81.1%	80.5%	79.9%
60	85.2%	84.5%	83.8%	83.2%	82.5%	81.8%	81.1%	80.4%	79.8%	79.1%
61	84.7%	84.0%	83.3%	82.5%	81.8%	81.1%	80.4%	79.7%	79.0%	78.3%
62	84.2%	83.4%	82.7%	81.9%	81.1%	80.4%	79.6%	78.9%	78.2%	77.5%
63	83.6%	82.9%	82.1%	81.3%	80.5%	79.7%	78.9%	78.1%	77.4%	76.6%
64	83.1%	82.3%	81.5%	80.6%	79.8%	79.0%	78.1%	77.3%	76.5%	75.8%
65	82.6%	81.7%	80.9%	80.0%	79.1%	78.2%	77.4%	76.5%	75.7%	74.9%
66	82.1%	81.2%	80.2%	79.3%	78.4%	77.5%	76.6%	75.7%	74.9%	74.0%
67	81.5%	80.6%	79.6%	78.7%	77.7%	76.8%	75.9%	75.0%	74.1%	73.2%
68	81.0%	80.0%	79.0%	78.0%	77.0%	76.1%	75.1%	74.1%	73.2%	72.3%
69	80.5%	79.4%	78.4%	77.4%	76.3%	75.3%	74.3%	73.3%	72.3%	71.4%
70	79.9%	78.8%	77.7%	76.7%	75.6%	74.5%	73.5%	72.4%	71.4%	70.4%
71	79.4%	78.2%	77.1%	75.9%	74.8%	73.7%	72.6%	71.5%	70.5%	69.5%
72	78.8%	77.6%	76.4%	75.2%	74.0%	72.9%	71.7%	70.6%	69.5%	68.4%
73	78.2%	76.9%	75.7%	74.4%	73.2%	72.0%	70.8%	69.7%	68.5%	67.4%
74	77.6%	76.3%	75.0%	73.7%	72.4%	71.1%	69.9%	68.7%	67.5%	66.4%
75	77.0%	75.6%	74.2%	72.9%	71.5%	70.2%	68.9%	67.7%	66.5%	65.3%

6 Relative Value Factors For 100% Joint & Survivor with Pop-Up

Participant's	Years by which the Spouse is Younger than the Participant									
Age	11	12	13	14	15	16	17	18	19	20
30	93.0%	92.9%	92.7%	92.6%	92.4%	92.3%	92.1%	92.0%	91.9%	91.8%
31	92.8%	92.6%	92.5%	92.3%	92.2%	92.0%	91.9%	91.7%	91.6%	91.5%
32	92.5%	92.4%	92.2%	92.0%	91.9%	91.7%	91.6%	91.4%	91.3%	91.2%
33	92.3%	92.1%	91.9%	91.8%	91.6%	91.4%	91.3%	91.1%	91.0%	90.9%
34	92.0%	91.8%	91.7%	91.5%	91.3%	91.1%	91.0%	90.8%	90.7%	90.5%
35	91.7%	91.6%	91.4%	91.2%	91.0%	90.8%	90.7%	90.5%	90.3%	90.2%
36	91.5%	91.3%	91.1%	90.9%	90.7%	90.5%	90.3%	90.1%	90.0%	89.8%
37	91.2%	91.0%	90.7%	90.5%	90.3%	90.2%	90.0%	89.8%	89.6%	89.4%
38	90.9%	90.6%	90.4%	90.2%	90.0%	89.8%	89.6%	89.4%	89.2%	89.0%
39	90.5%	90.3%	90.1%	89.8%	89.6%	89.4%	89.2%	89.0%	88.8%	88.6%
40	90.2%	89.9%	89.7%	89.5%	89.2%	89.0%	88.8%	88.6%	88.4%	88.2%
41	89.8%	89.6%	89.3%	89.1%	88.8%	88.6%	88.4%	88.2%	87.9%	87.7%
42	89.4%	89.2%	88.9%	88.7%	88.4%	88.2%	87.9%	87.7%	87.5%	87.3%
43	89.0%	88.8%	88.5%	88.2%	88.0%	87.7%	87.5%	87.2%	87.0%	86.8%
44	88.6%	88.3%	88.1%	87.8%	87.5%	87.2%	87.0%	86.7%	86.5%	86.2%
45	88.2%	87.9%	87.6%	87.3%	87.0%	86.7%	86.5%	86.2%	85.9%	85.7%
46	87.7%	87.4%	87.1%	86.8%	86.5%	86.2%	85.9%	85.6%	85.4%	85.1%
47	87.2%	86.9%	86.6%	86.3%	85.9%	85.6%	85.3%	85.1%	84.8%	84.5%
48	86.7%	86.4%	86.0%	85.7%	85.4%	85.1%	84.7%	84.4%	84.1%	83.9%
49	86.2%	85.8%	85.5%	85.1%	84.8%	84.4%	84.1%	83.8%	83.5%	83.2%
50	85.6%	85.2%	84.9%	84.5%	84.1%	83.8%	83.4%	83.1%	82.8%	82.5%
51	85.0%	84.6%	84.2%	83.8%	83.5%	83.1%	82.7%	82.4%	82.1%	81.8%
52	84.4%	84.0%	83.6%	83.2%	82.8%	82.4%	82.0%	81.7%	81.3%	81.0%
53	83.8%	83.3%	82.9%	82.5%	82.0%	81.6%	81.3%	80.9%	80.5%	80.2%
54	83.1%	82.6%	82.2%	81.7%	81.3%	80.9%	80.4%	80.1%	79.7%	79.3%
55	82.4%	81.9%	81.4%	80.9%	80.5%	80.0%	79.6%	79.2%	78.8%	78.4%
56	81.6%	81.1%	80.6%	80.1%	79.7%	79.2%	78.7%	78.3%	77.9%	77.5%
57	80.9%	80.3%	79.8%	79.3%	78.8%	78.3%	77.9%	77.4%	77.0%	76.6%
58	80.1%	79.5%	79.0%	78.5%	77.9%	77.4%	77.0%	76.5%	76.0%	75.6%
59	79.3%	78.7%	78.1%	77.6%	77.0%	76.5%	76.0%	75.5%	75.1%	74.6%
60	78.5%	77.9%	77.3%	76.7%	76.1%	75.6%	75.0%	74.5%	74.0%	73.6%
61	77.6%	77.0%	76.3%	75.7%	75.2%	74.6%	74.0%	73.5%	73.0%	72.5%
62	76.8%	76.1%	75.4%	74.8%	74.2%	73.6%	73.0%	72.5%	71.9%	71.4%
63	75.9%	75.2%	74.5%	73.8%	73.2%	72.6%	72.0%	71.4%	70.8%	70.3%
64	75.0%	74.3%	73.6%	72.9%	72.2%	71.5%	70.9%	70.3%	69.7%	69.2%
65	74.1%	73.3%	72.6%	71.9%	71.2%	70.5%	69.9%	69.2%	68.6%	68.1%
66	73.2%	72.4%	71.6%	70.9%	70.1%	69.4%	68.8%	68.1%	67.5%	66.9%
67	72.3%	71.5%	70.7%	69.9%	69.1%	68.4%	67.7%	67.0%	66.3%	65.7%
68	71.4%	70.5%	69.7%	68.8%	68.1%	67.3%	66.6%	65.9%	65.2%	64.5%
69	70.4%	69.5%	68.6%	67.8%	67.0%	66.2%	65.4%	64.7%	64.0%	63.3%
70	69.5%	68.5%	67.6%	66.7%	65.9%	65.0%	64.2%	63.5%	62.8%	62.1%
71	68.4%	67.5%	66.5%	65.6%	64.7%	63.9%	63.0%	62.3%	61.5%	60.8%
72	67.4%	66.4%	65.4%	64.4%	63.5%	62.6%	61.8%	61.0%	60.2%	59.5%
73	66.3%	65.3%	64.3%	63.3%	62.3%	61.4%	60.5%	59.7%	58.9%	58.1%
74	65.2%	64.1%	63.1%	62.1%	61.1%	60.1%	59.2%	58.4%	57.5%	56.8%
75	64.1%	63.0%	61.9%	60.8%	59.8%	58.8%	57.9%	57.0%	56.2%	55.4%

6 Relative Value Factors For 100% Joint & Survivor with Pop-Up

Participant's	Years by which the Spouse is Younger than the Participant									
Age	21	22	23	24	25	26	27	28	29	30
30	91.7%	91.5%	91.4%	91.3%	91.2%	91.1%	91.0%	90.9%	90.9%	90.8%
31	91.4%	91.2%	91.1%	91.0%	90.9%	90.8%	90.7%	90.6%	90.5%	90.5%
32	91.0%	90.9%	90.8%	90.7%	90.6%	90.5%	90.4%	90.3%	90.2%	90.1%
33	90.7%	90.6%	90.5%	90.3%	90.2%	90.1%	90.0%	89.9%	89.8%	89.7%
34	90.4%	90.2%	90.1%	90.0%	89.9%	89.7%	89.6%	89.5%	89.4%	89.3%
35	90.0%	89.9%	89.7%	89.6%	89.5%	89.4%	89.2%	89.1%	89.0%	88.9%
36	89.7%	89.5%	89.4%	89.2%	89.1%	89.0%	88.8%	88.7%	88.6%	88.5%
37	89.3%	89.1%	89.0%	88.8%	88.7%	88.5%	88.4%	88.3%	88.2%	88.1%
38	88.9%	88.7%	88.5%	88.4%	88.2%	88.1%	88.0%	87.9%	87.7%	87.6%
39	88.5%	88.3%	88.1%	88.0%	87.8%	87.7%	87.5%	87.4%	87.3%	87.2%
40	88.0%	87.8%	87.7%	87.5%	87.3%	87.2%	87.0%	86.9%	86.8%	86.6%
41	87.5%	87.4%	87.2%	87.0%	86.8%	86.7%	86.5%	86.4%	86.2%	86.1%
42	87.1%	86.9%	86.7%	86.5%	86.3%	86.1%	86.0%	85.8%	85.7%	85.6%
43	86.5%	86.3%	86.1%	85.9%	85.8%	85.6%	85.4%	85.3%	85.1%	85.0%
44	86.0%	85.8%	85.6%	85.4%	85.2%	85.0%	84.8%	84.7%	84.5%	84.4%
45	85.5%	85.2%	85.0%	84.8%	84.6%	84.4%	84.2%	84.1%	83.9%	83.7%
46	84.9%	84.6%	84.4%	84.2%	84.0%	83.8%	83.6%	83.4%	83.2%	83.1%
47	84.2%	84.0%	83.8%	83.5%	83.3%	83.1%	82.9%	82.7%	82.5%	82.4%
48	83.6%	83.3%	83.1%	82.8%	82.6%	82.4%	82.2%	82.0%	81.8%	81.7%
49	82.9%	82.6%	82.4%	82.1%	81.9%	81.7%	81.4%	81.2%	81.1%	80.9%
50	82.2%	81.9%	81.6%	81.4%	81.1%	80.9%	80.7%	80.5%	80.3%	80.1%
51	81.4%	81.1%	80.9%	80.6%	80.3%	80.1%	79.9%	79.6%	79.4%	79.2%
52	80.7%	80.3%	80.0%	79.8%	79.5%	79.2%	79.0%	78.8%	78.6%	78.4%
53	79.8%	79.5%	79.2%	78.9%	78.6%	78.4%	78.1%	77.9%	77.6%	77.4%
54	79.0%	78.6%	78.3%	78.0%	77.7%	77.4%	77.2%	76.9%	76.7%	76.5%
55	78.1%	77.7%	77.4%	77.1%	76.8%	76.5%	76.2%	75.9%	75.7%	75.5%
56	77.1%	76.8%	76.4%	76.1%	75.8%	75.5%	75.2%	74.9%	74.7%	74.4%
57	76.2%	75.8%	75.4%	75.1%	74.8%	74.4%	74.2%	73.9%	73.6%	73.4%
58	75.2%	74.8%	74.4%	74.1%	73.7%	73.4%	73.1%	72.8%	72.5%	72.3%
59	74.2%	73.8%	73.4%	73.0%	72.6%	72.3%	72.0%	71.7%	71.4%	71.2%
60	73.1%	72.7%	72.3%	71.9%	71.5%	71.2%	70.9%	70.5%	70.3%	70.0%
61	72.0%	71.6%	71.2%	70.8%	70.4%	70.0%	69.7%	69.4%	69.1%	68.8%
62	70.9%	70.5%	70.0%	69.6%	69.2%	68.8%	68.5%	68.2%	67.9%	67.6%
63	69.8%	69.3%	68.9%	68.4%	68.0%	67.6%	67.3%	66.9%	66.6%	66.3%
64	68.7%	68.2%	67.7%	67.2%	66.8%	66.4%	66.0%	65.7%	65.4%	65.1%
65	67.5%	67.0%	66.5%	66.0%	65.6%	65.2%	64.8%	64.4%	64.1%	63.8%
66	66.3%	65.8%	65.3%	64.8%	64.3%	63.9%	63.5%	63.1%	62.8%	62.4%
67	65.1%	64.6%	64.1%	63.6%	63.1%	62.6%	62.2%	61.8%	61.5%	61.1%
68	63.9%	63.4%	62.8%	62.3%	61.8%	61.3%	60.9%	60.5%	60.1%	59.8%
69	62.7%	62.1%	61.5%	61.0%	60.5%	60.0%	59.5%	59.1%	58.7%	58.4%
70	61.4%	60.8%	60.2%	59.6%	59.1%	58.6%	58.2%	57.7%	57.3%	57.0%
71	60.1%	59.5%	58.8%	58.3%	57.7%	57.2%	56.7%	56.3%	55.9%	55.5%
72	58.8%	58.1%	57.5%	56.9%	56.3%	55.8%	55.3%	54.8%	54.4%	54.0%
73	57.4%	56.7%	56.1%	55.4%	54.9%	54.3%	53.8%	53.3%	52.9%	52.5%
74	56.0%	55.3%	54.6%	54.0%	53.4%	52.8%	52.3%	51.8%	51.4%	51.0%
75	54.6%	53.9%	53.2%	52.5%	51.9%	51.3%	50.8%	50.3%	49.8%	49.4%