



**Thrift Savings Plan**

# **TSP Annuities**

**July 2004**

**Federal Retirement  
Thrift Investment Board**

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# Thrift Savings Plan Annuities

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A Thrift Savings Plan (TSP) annuity provides you with monthly income for life. It is one of several options for withdrawing your TSP account.

This booklet describes the types of TSP annuities that are available to Federal civilian employees and members of the uniformed services<sup>1</sup> and provides information to help you choose an annuity. It contains a worksheet and tables for estimating the amount of monthly annuity payments based on your annuity choice, your age, and your estimated account balance. The information in the booklet will also help you if you are not yet ready to request an annuity but want to know more about TSP annuities in order to plan for your retirement.

If you have both a civilian and a uniformed services TSP account, the information in this booklet applies to each account separately.

This booklet supplements the information in the booklet *Withdrawing Your TSP Account After Leaving Federal Service*, which is contained in the Withdrawal Package that your agency or service should give you when you separate from service. You can also obtain a copy of the withdrawal booklet by downloading it from the TSP Web site at [www.tsp.gov](http://www.tsp.gov) or requesting it from the TSP Service Office at the address or phone number below. The withdrawal booklet includes important information about the withdrawal options available to you, spouses' rights, and survivor benefits. You should read it **before** you read this booklet.

If you need more information about withdrawals:

- Employed participants** — Contact your personnel office or your service TSP representative.
- Separated and retired participants** — Write to:

TSP Service Office  
National Finance Center  
P.O. Box 61500  
New Orleans, LA 70161-1500

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<sup>1</sup> The Floyd D. Spence National Defense Authorization Act for 2001 (Public Law 106-398) extended participation in the TSP to members of the uniformed services.

For TSP purposes, the uniformed services includes members of the Army, Navy, Air Force, Marine Corps, Coast Guard, Public Health Service, and the National Oceanic and Atmospheric Administration, as well as members of the Ready Reserve, including the National Guard.

You can also reach the TSP Service Office by calling the ThriftLine at 1-TSP-YOU-FRST (1-877-968-3778) or the TDD at 1-TSP-THRIFT5 (1-877-847-4385). Outside the U.S. and Canada, please call 1-504-255-8777 (not toll free).

If you need advice about the type of annuity or other withdrawal option that is best for you, you should contact a financial counselor or tax advisor. Such advice cannot be provided by your agency, your service, or the TSP Service Office.

**Note:** A TSP annuity is not the “basic annuity” that you will receive as a result of your retirement coverage under FERS or CSRS.<sup>2</sup> It is also separate from the retirement pay that members of the uniformed services receive when they retire. If you have questions about your eligibility for the basic annuity or uniformed services retired pay and the amount of income it will provide, contact your agency or service.

## TSP Annuities

If you choose a TSP annuity, the balance in the account to which your annuity request applies **must be at least \$3,500 at the time your annuity is purchased**. If you are using only a portion of your account for an annuity, the percentage you choose when requesting your withdrawal must equal \$3,500 or more of your vested account balance.

A TSP annuity provides income in the form of monthly payments for as long as you — and your joint annuitant, if you elect an annuity with survivor benefits — are alive. If you name a joint annuitant, monthly payments are made to you while you and your joint annuitant are both alive; when either of you dies, monthly payments are made to the survivor for the rest of his or her life. The factors that affect the amount of the monthly payments include:

- The annuity option you choose.
- Your age when your annuity is purchased (and the age of your spouse or other joint annuitant).

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<sup>2</sup> FERS refers to the Federal Employees' Retirement System, the Foreign Service Pension System, and other equivalent Government retirement plans.

CSRS refers to the Civil Service Retirement System, including CSRS Offset, the Foreign Service Retirement and Disability System, and other equivalent Government retirement plans.

- ❑ The balance in the TSP account used to purchase your annuity.
- ❑ The “interest rate index” when your annuity is purchased.

Be sure you understand the annuity options before you make your choice, because **after your annuity is purchased, you cannot change your election or terminate your annuity.**

## Administration of Your Annuity

The TSP uses the balance in the account to which your annuity request applies to purchase an annuity for you from the annuity provider. The current TSP annuity provider is Metropolitan Life Insurance Company (MetLife), a major national insurance company competitively chosen by the Federal Retirement Thrift Investment Board, which administers the TSP.

When your annuity is purchased, the TSP record keeper will notify you of the purchase. MetLife will send you an annuity certificate, set up your account record, and begin issuing monthly payments. You will receive your first monthly payment approximately 30 days after your annuity is purchased.

Once your annuity is purchased, all of your communications regarding your annuity will be with MetLife, from whom you will receive information and instructions about how to keep your account record up to date. MetLife will also send you income tax withholding information and will report your payments to the Internal Revenue Service (IRS).

## Types of TSP Annuities

Five types of TSP annuities are provided, as specified by the Federal Employees’ Retirement System Act (FERSA), which is the authorizing legislation for the TSP. In addition to the five types of annuities, there are other features that you must consider.

The five types of TSP annuities are:

### Single life annuity:

1. with level payments  
*or*
2. with increasing payments

### Joint life annuity with your spouse:

3. with level payments  
*or*
4. with increasing payments

### Joint life annuity with someone other than your spouse:

5. with level payments

These annuities are described below and are summarized in Section 1 of the table on page 5.

Throughout the remainder of the booklet, the term “joint life annuity” is used to refer to both a joint life annuity with your spouse and a joint life annuity with someone other than your spouse.

## Single Life and Joint Life Annuities

**Single Life Annuity** — An annuity that provides monthly payments only to you as long as you live.

**Joint Life Annuity** — An annuity that provides monthly payments to you while you and the person you name as your joint annuitant are alive. When either of you dies, monthly payments are made to the survivor for his or her lifetime. The amount of the payment that you receive while you and your joint annuitant are alive and the amount of the payment to the survivor depend on whether you choose a 100 percent or a 50 percent survivor annuity.

**100 percent survivor annuity.** The amount of the monthly payment to the survivor is the same as the annuity payment made while both you and your joint annuitant are alive. However, the amount of the monthly payment that you receive while you are both alive is generally less than it would be if you select the 50 percent survivor annuity.

**50 percent survivor annuity.** The amount of the monthly payment to the survivor — whether the survivor is you or your joint annuitant — is half (that is, 50 percent) of the annuity payment made while both you and your joint annuitant are alive.

## Level and Increasing Payment Annuities

Once you have chosen either a single life or a joint life annuity, you must also decide whether you want to receive level or increasing payments.

**Level Payments.** The amount of the monthly payment remains the same from year to year. Thus, with a single life annuity, you receive the same monthly payment for as long as you live. With a joint life annuity, you receive the same monthly payment for as long as you and your joint annuitant are alive. The monthly payment to the survivor (100 percent or 50 percent of the initial payment) remains the same for as long as the survivor is alive.

**Increasing Payments.** The amount of the monthly payment can change each year on the anniversary date of the first annuity payment. The amount of the change is based on the change in the consumer price index. When annuity payments start, they are smaller than they would be if you had selected level payments, but usually there is an annual increase in monthly payments. Increases cannot exceed 3 percent per year, but monthly payments cannot decrease, even if the consumer price index decreases. Increasing payments can be combined with either the single life or the joint life annuity with your spouse. With a joint life annuity, the annual increase applies whether you or your spouse is the survivor. Increasing payments **cannot** be combined with a joint life annuity when the joint annuitant is someone other than your spouse.

## Additional Annuity Features

There are two additional annuity features: the cash refund feature and the 10-year certain feature. If you choose one of these features, certain amounts will be paid to the beneficiary that you name if you (and your joint annuitant, if applicable) die before the amounts have been paid out. When you choose one of these features, your monthly payments will be less than they would have been if you had not chosen one of them.

**Cash Refund.** If you (and your joint annuitant, if applicable) die before an amount equal to the balance used to purchase your annuity has been paid out, the difference between the balance used to purchase your annuity and the sum of the monthly payments already made will be paid to your beneficiary in a lump sum. This feature can be combined with either a single life or a joint life annuity, and it can be combined with either level or increasing payments.

**Ten-year Certain.** If you die before receiving annuity payments for a 10-year period, payments will continue to your beneficiary for the rest of the 10-year period. If you live beyond the 10-year period, you will continue to receive payments, but

with no further provision for payments to a beneficiary upon your death. This feature can be combined with a single life annuity with either level or increasing payments. It **cannot** be combined with a joint life annuity.

Section 1 of the table on page 5 summarizes the TSP annuity options described above.

## Spouses' Rights

The law gives certain rights to your spouse (including a separated spouse). The TSP must take these rights into consideration before a TSP annuity can be purchased for you. Therefore, you must provide certain spousal information so that the TSP can implement the spouses' rights provisions of the law. (See page 6, "Requesting an Annuity.")

**FERS participants.** If you are a married FERS participant, your spouse has the right to a joint life annuity with a 50 percent survivor benefit, level payments, and no cash refund feature. This requirement applies even if you are separated from your spouse. Therefore, if you elect a full withdrawal of your account and you are not using your **entire** account balance to purchase the prescribed annuity, your spouse must waive this annuity option. This *also* means that your spouse must waive his or her right to this prescribed annuity if you make a mixed withdrawal (i.e., a full withdrawal using more than one of the withdrawal options), because your entire account will not be used to purchase the prescribed annuity.

If you are not able to locate your spouse, or if exceptional circumstances make it inappropriate for your spouse to sign a waiver, the TSP may grant an exception to the required waiver. To request an exception, you must complete Form TSP-16, Exception to Spousal Requirements, and provide supporting documentation as described on that form.

**CSRS participants.** If you are a married CSRS participant (even if you are separated from your spouse), the TSP must send a notice to your spouse before your annuity is purchased, notifying him or her of your withdrawal.

If you are not able to provide your spouse's address, the TSP may grant an exception to the required notice. To request such an exception, you must complete Form TSP-16, Exception to Spousal Requirements, and provide supporting documentation as described on that form.

**Uniformed services participants.** If you are married, your spouse has the right to a joint life annuity with a 50 percent survivor benefit, level payments, and no cash refund feature. This requirement applies even if you are separated from your spouse. Therefore, if you elect a full withdrawal of your account and you are not using your **entire** account balance to purchase the prescribed annuity, your spouse must waive this annuity option. This *also* means that your spouse must waive his or her right to this prescribed annuity if you make a mixed withdrawal (i.e., a full withdrawal using more than one of the withdrawal options), because your entire account will not be used to purchase the prescribed annuity.

If you are not able to locate your spouse, or if exceptional circumstances make it inappropriate for your spouse to sign a waiver, the TSP may grant an exception to the required waiver. To request an exception, you must complete Form TSP-U-16, Exception to Spousal Requirements, and provide supporting documentation as described on that form.

**ALL participants.** If the TSP has received a valid court order that awards a portion of a TSP account to a current or former spouse or one that requires payment for enforcement of child support or alimony obligations, the TSP will comply with that order before your annuity is purchased from the balance in that account. The TSP will notify you of any court orders received which affect your account.

## Choosing a Joint Annuitant Who Is Not Your Spouse

If you choose an annuity that provides for a joint annuitant other than your spouse, the joint annuitant must be either a former spouse or someone with an **insurable interest** in you. This means that the person is financially dependent on you and could reasonably expect to derive financial benefit from your continued life. Blood relatives or adopted relatives (but not relatives by marriage) who are closer than first cousins are presumed to have an insurable interest in you.

**If you name such a joint annuitant (i.e., a former spouse or someone with an insurable interest) who is more than 10 years younger than you, you must choose a joint life annuity with the 50 percent survivor benefit. The only exception is for a former spouse to whom all or a portion of your TSP account is payable pursuant to a retirement benefits court order.**

If the person you name as your joint annuitant does not have a presumed insurable interest in you, you must submit an affidavit (i.e., a certification signed before a notary public) from someone with personal knowledge that the named person has an insurable interest in you. The certifier must know the relationship between you and the joint annuitant and must state why he or she believes that the named joint annuitant might reasonably expect to benefit financially from your continued life.

## Choosing Among the Annuity Options

The value of the expected lifetime payments under all of the annuity options is comparable, but the amounts of the monthly payments that you receive — and the provision for continuing payments to a survivor or beneficiary — are different. For example, a monthly payment under a single life annuity will generally be more than the monthly payment under a joint life annuity. However, the number of payments under a single life annuity will generally be fewer than under a joint life annuity. This is because payments continue under the joint life annuity after the death of one of the joint annuitants until the survivor dies.

Examples of monthly payments under the various annuity options for a participant who expects to retire at age 62 with an account balance of \$50,000 are shown in Section 2 of the table on page 5. In the examples for the joint life options, the spouse or other annuitant is assumed to be 3 years younger than the participant. The examples assume that the annuity is purchased when the annuity “interest rate index” is 7 percent. (See the Appendix on page 9 for a description of the interest rate index.)

**After your annuity is purchased, you cannot change either the annuity option or the joint annuitant that you have named.** Therefore, be sure you understand the differences among the annuity options before you make your choice.

## Estimating Your Monthly Annuity Payments

You can use the worksheet and tables in the Appendix to this booklet to estimate the amounts of monthly annuity payments for the different annuity options. An annuity calculator that will estimate annuity benefit amounts using the current interest rate index is also available on the TSP Web site, [www.tsp.gov](http://www.tsp.gov).

# Summary of Annuity Options and Examples of Estimated Payments

## Section 1: Summary of Annuity Options<sup>1</sup>

Single Life		Joint Life with Spouse		Joint Life with Other Survivor
1. Level Payments	2. Increasing Payments	3. Level Payments	4. Increasing Payments	5. Level Payments
a) with no additional features <b>or</b> b) with cash refund feature <b>or</b> c) with 10-year certain feature	a) with no additional features <b>or</b> b) with cash refund feature <b>or</b> c) with 10-year certain feature	a) 100% survivor annuity <b>or</b> b) 50% survivor annuity <b>or</b> c) 100% survivor annuity with cash refund <b>or</b> d) 50% survivor annuity with cash refund	a) 100% survivor annuity <b>or</b> b) 50% survivor annuity <b>or</b> c) 100% survivor annuity with cash refund <b>or</b> d) 50% survivor annuity with cash refund	a) 100% survivor annuity* <b>or</b> b) 50% survivor annuity <b>or</b> c) 100% survivor annuity with cash refund* <b>or</b> d) 50% survivor annuity with cash refund

\* Available if joint annuitant is not more than 10 years younger than the participant.

<sup>1</sup> A married FERS or uniformed services participant must obtain a spouse waiver of the survivor annuity benefit if an option is chosen other than 3b. See the section of this booklet entitled "Spouses' Rights" on page 3.

## Section 2: Examples of Estimated Monthly Payments Under the Annuity Options Shown Above

(Based on \$50,000 account balance, 7% interest rate index, and assuming a 62-year-old participant and a 59-year-old joint annuitant)

Single Life		Joint Life with Spouse		Joint Life with Other Survivor	
1. Level Payments	2. Increasing Payments		4. Increasing Payments		5. Level Payments
	<i>Initially</i>	<i>In 10th Year</i> <sup>2</sup>		<i>Initially</i>	<i>In 10th Year</i> <sup>2</sup>
a) \$436.50	a) \$332.50	\$433.84	a) \$378.50	a) \$275.50	\$359.46
b) \$410.50	b) \$306.00	\$399.26	b) \$426.00	b) \$321.00	\$418.83
c) \$424.00	c) \$324.00	\$422.74	c) \$374.50	c) \$272.50	\$355.55
			d) \$413.00	d) \$308.50	\$402.52

<sup>2</sup> Payments increase each year on the anniversary date of the first annuity payment. The annual increase is based on the change in the consumer price index, but cannot be negative or exceed 3%. This example illustrates the monthly annuity payment in the 10th year if the increase each year for 9 years is 3%. However, the annual increase could be less than this (or none at all).

To make an estimate, you must first estimate your TSP account balance at the expected annuity purchase date. You can obtain your current account balance by accessing that account on the TSP Web site or by calling the ThriftLine from a touch-tone telephone. You will need your Social Security number and the Personal Identification Number (PIN) for your account. You can also estimate your account balance using your most recent participant statement and adding any contributions and estimated earnings since the date of that statement.

Interest rate levels at the time the annuity is purchased will affect the amount of the monthly payments. The TSP uses an interest rate index to reflect the general level of interest rates at the time the annuity is purchased. The interest rate index is a moving average of the 10-year U.S. Treasury rate. You can obtain the current interest rate index from the Current Information section of the TSP Web site or from the ThriftLine. Because interest rates change over time, you may want to make monthly annuity payment estimates assuming several different interest rate levels. **Once your annuity has been purchased, changes in the interest rate index will not affect the amount of your annuity payments.**

The **exact** amount of your monthly annuity payment cannot be determined until the date of purchase. At that time, your account balance will be used to purchase your annuity.<sup>3</sup>

## How Annuity Payments Are Taxed

When you separate, your agency or service should provide you with a Withdrawal Package that contains the current tax notice “Important Tax Information About Payments From Your TSP Account.” You should read this notice before making a withdrawal choice. (The tax notice is also available from the TSP Web site at [www.tsp.gov](http://www.tsp.gov) or from the TSP Service Office.)

**For FERS or CSRS TSP accounts.** Taxes on all contributions to your TSP account and the earnings on those contributions are deferred until the money is paid to you. Therefore, your TSP annuity pay-

ments will be taxed as ordinary income in the years that you receive them. However, these annuity payments are **not** subject to the IRS early withdrawal penalty, even if you are under age 55 when they begin.

**For uniformed services TSP accounts.** TSP accounts for members of the uniformed services may also include contributions from combat zone pay. Combat zone pay is exempt from Federal income tax. If your account includes tax-exempt contributions, your annuity will be purchased from your account on a *pro rata* basis from both taxable and tax-exempt sources — even if you are withdrawing only a portion of your account in the form of an annuity. Therefore, the portion of your annuity payments that represents your contributions from combat zone pay will be exempt from Federal income tax when you receive the payment. The tax-deferred portion of your annuity payments will be taxed as ordinary income in the years you receive them.

The annuity vendor will calculate the amount of tax-exempt money that will be paid with each annuity payment and will inform you of this amount. The calculation will be based on IRS requirements and the type of annuity you have chosen, and will spread out the tax-exempt payments over your life expectancy (and that of your joint annuitant, if applicable). Once the tax-exempt amount of your initial payment is calculated, that amount will remain fixed, even if the amount of your annuity payment changes (for example, due to the death of a joint annuitant). When all of the tax-exempt money used to purchase your annuity is paid out, any future payments will contain no tax-exempt money. If you elected a cash refund feature and have any remaining tax-exempt money in your annuity when you (and if applicable, your joint annuitant) die, the remaining tax-exempt amount will continue to be treated as tax-exempt when it is paid to your beneficiary(ies).

## Requesting an Annuity

To request an annuity, submit Form TSP-70 (civilian) or Form TSP-U-70 (uniformed services), Request for Full Withdrawal, to the TSP Service Office, indicating that you want a TSP annuity.<sup>4</sup>

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<sup>3</sup> If you are 70½ or older and separated from service, you are required by the IRS to receive an amount from your account each year that meets certain minimum distribution requirements. Because of this rule, a portion of your account balance may be paid to you directly as a minimum distribution before your annuity is purchased. (For more information, see the tax notice “Important Tax Information About Your TSP Withdrawal and Required Minimum Distributions,” available from the TSP Web site at [www.tsp.gov](http://www.tsp.gov) or from the TSP Service Office.)

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<sup>4</sup> Forms for civilian TSP participants are identified by the letters “TSP” followed by the form number. Forms for uniformed services TSP accounts are identified by the letters “TSP-U” before the form number.



Form TSP-70 or TSP-U-70 should be contained in the Withdrawal Package that you receive from your agency or service when you separate. These forms are also available from the TSP Web site or, after you separate, from the TSP Service Office.

When you are completing your withdrawal request, you will be able to choose whether you want all or any portion of your withdrawal to be used to purchase an annuity. If you decide to receive any portion of your account as an annuity, you will have to determine what type of annuity you would like. For example, you will have to choose whether you would like your annuity paid as a single life annuity, a joint annuity with your spouse, or a joint annuity with someone other than your spouse. You will also have to decide whether you would like to add any features (e.g., cash refund or 10-year certain) to the annuity and if so, whom you will designate to receive your annuity if you die. If you choose a joint life annuity, you will have to provide proof of your joint annuitant's age.

If you cannot provide a copy of your joint annuitant's birth certificate, one of the following items may be used if a date of birth is shown: baptismal certificate, marriage certificate, or family bible record. If none of the above are available, submit **two** of the following types of evidence: school or college record, church record, birth certificate of children (if parent's age is shown), family record of genealogies, military identification, military discharge papers, passport, driver's license, life insurance papers, hospital records, census records, or voting records.

If you have chosen a joint annuitant for whom evidence of an insurable interest is required (see page 4), the affidavit certifying the insurable interest should also be submitted with Form TSP-70 or Form TSP-U-70.

If you are a married TSP participant, spouses' rights apply. This means that if you are a FERS or uniformed services participant, your spouse is entitled to a joint life annuity with a 50% survivor benefit, level payments, and no cash refund. If you do not use your **entire** account balance to purchase that annuity, your spouse must waive his or her right to that annuity by signing your withdrawal request. For CSRS participants, your spouse must be notified of your election and you must provide your spouse's address on your request. (See Spouses' Rights on page 3 for more information.)

## Information Your Agency or Service Must Provide

When you separate, your agency or service must inform the TSP that you have separated and the date of your separation.

You should make sure that your agency or service submits this information directly to the TSP record keeper. Your annuity request cannot be processed until the TSP Service Office has received complete separation information for the account to which the annuity request applies.

## Changing Your Annuity Request

Withdrawals are processed each business day, and annuities are purchased at the time a withdrawal request is processed. If you want to try to cancel your withdrawal request (e.g., because you want a different option), you may be able to do so by using the TSP Web site or by calling the TSP Service Office. However, because requests are processed daily, your opportunity to cancel will be very short. Once the annuity is purchased, you cannot change or cancel the annuity, nor can you terminate it.

## When Your Annuity Payments Will Start

Annuities are purchased each business day. The TSP will purchase your annuity when it receives all of the information and documentation necessary for the purchase — generally within 2 business days of receiving your completed request. Once your annuity is purchased, MetLife will send you a package of information and an annuity contract. Payments, however, will begin approximately one month after the annuity is purchased.

## What Happens to Your Annuity When You Die

If you die **after your annuity has been purchased and/or after payments begin**, benefits will be provided according to your annuity selection. Thus, if you chose a joint life annuity and your joint annuitant is still living when you die, payments will be made to the joint annuitant until he or she dies. If you chose an annuity with a cash refund or 10-year certain feature, payment will be made to your beneficiaries as described on page 3. For all other options, there are no further payments after your death.

If you die **before your annuity is purchased by the TSP**, the TSP will cancel the annuity request. Your account will then be distributed based on the annuity you chose. If you chose an annuity that provides for a joint annuitant and/or beneficiaries, your entire account balance will be distributed to your joint annuitant or, if there is no joint annuitant, to the persons you named in your annuity request as your beneficiaries. If you chose a single life annuity without beneficiary provisions, your account balance will be distributed to the persons you named on your most recent Form TSP-3 or TSP-U-3.

If there is no Form TSP-3 or TSP-U-3 on file with the TSP Service Office, your account will be distributed according to the legal order of precedence as follows:

To your widow or widower; if none, to your child or children equally, and to descendants of deceased children by representation; if none, to your parents equally or the surviving parent; if none, to the ex-

ecutor or administrator of your estate; if none, to your next of kin who is entitled to your estate under the laws of the state in which you resided at the time of your death.

In this order of precedence, a child includes a natural child (even if the child was born out of wedlock), a child adopted by the participant, and descendants of deceased children; it does not include a stepchild who was not adopted. **Note:** Under the order of precedence, if the participant's natural child was adopted by someone other than the participant's spouse, that child is not entitled to a share of the participant's TSP account.

“By representation” means that, if a child of the participant dies before the participant dies, that child's share will be divided equally among his or her children.

Parent does not include a stepparent unless the stepparent adopted the participant.

# Appendix

## Estimating a Monthly Annuity Payment

You can use the Annuity Calculator on the TSP Web site ([www.tsp.gov](http://www.tsp.gov)) or the following worksheet to estimate the amount of the monthly annuity payment that you will receive when your annuity is purchased. The particular annuity option you want to estimate will determine which tables you use.

**Annuity choice.** Before you begin the worksheet, be sure you can answer the following questions:

- Are you estimating a single or a joint life annuity?
- If you are estimating a joint life annuity, is it a 100% or a 50% survivor annuity?
- Are you estimating a level payment or an increasing payment annuity?
- Are you adding either the cash refund or the 10-year certain feature?

**Other basic information.** In addition to your annuity choice, you will need to know:

- Your approximate TSP account balance at the expected annuity purchase date.
- Your age (and the age of your spouse or other eligible person, if you are estimating a joint life annuity) at the expected annuity purchase date.

**Estimating an immediate annuity.** Use your current age and account balance. Check the TSP Web site or call the ThriftLine to find out your account balance; or estimate your balance using your most recent participant statement (and adding contributions and estimated earnings since the date of that statement).

**Estimating an annuity for a later purchase date.** To estimate what your payment would be if your annuity is purchased at a later date, choose an expected annuity purchase date (e.g., 5 years from now) and determine how old you (and your joint annuitant, if applicable) would be at that date.

Also estimate the amount of money that will be in your TSP account at that time by using the Projecting Account Balance calculator on the TSP Web site, or Tables A and B from “Projecting Your Account Balance” in the *Summary of the Thrift Savings Plan for Federal Employees* or *Summary of the Thrift Savings Plan for the Uniformed Services*.

**Completing the worksheet.** The worksheet has three sections:

**Part A — Participant information.**

**Part B — Preliminary estimate of monthly annuity payment.** This estimate is not adjusted for current interest rate levels. It is based on factors using a 7% interest rate index. You can stop at the end of Part B if the preliminary estimate meets your need to compare several types of annuities or to obtain a rough idea of what your annuity income will be.

**Part C — Adjusted estimate for current interest rate levels.** The interest rate index used in TSP annuity calculations is based on a 3-month moving average of the 10-year U.S. Treasury rates. If the current interest rate index is 7%, there is no adjustment to your preliminary monthly payment estimate. If the current interest rate index is higher than 7%, the adjustment will increase your estimate. If the current interest rate index is lower than 7%, the adjustment will decrease your estimate.

To obtain the current interest rate index, check the Current Information section of the TSP Web site or call the ThriftLine. (Once your annuity is purchased, the monthly payment you receive will not change when the interest rate index changes.)

**Using the tables.** To estimate one of the single life annuity options, use Tables 1 and 3. To estimate one of the joint life annuity options, use Tables 2 and 4. These tables are designed for estimating either the joint life with spouse annuity or the joint life with other survivor annuity.

All of the tables are based on your age at the time your annuity is purchased. Joint life annuity tables also take into account the age of the joint annuitant. (Neither the sex of the annuitants nor status as head of household affects the amount of the monthly annuity payment.)

The tables in this booklet include an age range that covers most participants (and their joint annuitants) who are at or near retirement age. If your age or your joint annuitant's age is not covered by these tables, the TSP Service Office, your agency personnel office, or your service TSP representative can give you information from the more detailed *Thrift Savings Plan Comprehensive Tables of Annuity Rates*, February 2001 edition.

# Worksheet for Estimating a Monthly Annuity Payment

This worksheet can be used to estimate the monthly annuity payment that you will receive when your annuity is purchased. Enter information in Part A that is appropriate for your expected annuity purchase date.

	<b>Example</b>	<b>Your Estimate</b>
<b>A. Participant information</b>		
	<i>Joint with spouse – 50% level payments, no cash refund</i>	
(1) Annuity option:	_____	_____
(2) Your age:	<u>55</u>	_____
(3) Your joint annuitant's age (if a joint life annuity):	<u>52</u>	_____
(4) Age difference (if a joint life annuity) — joint annuitant is:	<u>3 years</u> <u>younger</u> older	_____ years younger/older
(5) Estimated TSP account balance at time of purchase:	\$ <u>50,016.90</u>	\$ _____
<b>B. Preliminary estimate of monthly annuity payment</b>		
(6) Estimated amount available for annuity in thousands of dollars: line (5) ÷ \$1,000	\$ <u>50.01690</u>	\$ _____
(7) Monthly annuity factor per \$1,000 account balance: For single life annuity, use Table 1 (page 11). For joint life annuity, use Table 2 (pages 11 – 19).	\$ <u>7.77</u>	\$ _____
(8) Preliminary estimate of monthly annuity payment: line (6) × line (7)	\$ <u><u>388.63</u></u>	\$ _____
<b>C. Adjusted estimate for current interest rate levels</b>		
(9) Current interest rate index: (Check the Current Information section of the TSP Web site or call the ThriftLine.)	<u>6.000</u>	_____
(10) Interest rate index used in monthly annuity factor tables:	<u>7.000</u>	<u>7.000</u>
(11) Index increase (decrease): line (9) – line (10)	<u>(1.000)</u>	_____
(12) Interest adjustment factor: For single life annuity, use Table 3 (page 20). For joint life annuity, use Table 4 (page 21).	<u>0.094</u>	_____
(13) Adjustment multiplier: line (11) × line (12)	<u>(0.094)</u>	_____
(14) Increase (decrease) to estimate: line (8) × line (13)	\$ <u>(36.53)</u>	\$ _____
(15) Estimated monthly annuity payment adjusted for current interest rate: line (8) + line (14)	\$ <u><u>352.10</u></u>	\$ _____

## TABLE 1 Single Life Annuities

### Monthly Annuity Factors per \$1,000 Account Balance

**Instructions:** Find your age (at the expected annuity purchase date) in the left-hand column headed “Annuitant’s Age.” Find the column that describes the annuity option you are estimating.

Then find the number where the row for your age intersects the column for your annuity option. Enter that number on the worksheet on line (7).

Annuitant’s Age	Level Payment			Increasing Payment		
	No Added Features	Cash Refund	10-Year Certain	No Added Features	Cash Refund	10-Year Certain
45	\$7.21	\$7.14	\$7.17	\$4.96	\$4.82	\$4.94
46	7.26	7.19	7.21	5.03	4.87	5.00
47	7.31	7.24	7.26	5.09	4.94	5.06
48	7.37	7.30	7.31	5.16	5.00	5.12
49	7.43	7.36	7.37	5.23	5.07	5.19
50	7.50	7.35	7.43	5.31	5.09	5.26
51	7.57	7.42	7.49	5.39	5.17	5.34
52	7.64	7.49	7.56	5.47	5.25	5.42
53	7.72	7.57	7.63	5.56	5.34	5.50
54	7.80	7.65	7.70	5.65	5.43	5.59
55	7.89	7.58	7.78	5.75	5.41	5.68
56	7.99	7.67	7.86	5.86	5.50	5.77
57	8.09	7.77	7.95	5.97	5.61	5.88
58	8.20	7.87	8.05	6.09	5.72	5.98
59	8.32	7.99	8.15	6.21	5.84	6.10
60	8.45	7.94	8.25	6.35	5.84	6.22
61	8.58	8.07	8.36	6.49	5.98	6.34
62	8.73	8.21	8.48	6.65	6.12	6.48
63	8.89	8.36	8.61	6.82	6.27	6.62
64	9.06	8.52	8.74	6.99	6.43	6.76
65	9.24	8.41	8.88	7.18	6.39	6.92
66	9.44	8.59	9.02	7.39	6.58	7.08
67	9.65	8.78	9.17	7.61	6.77	7.25
68	9.88	8.99	9.33	7.84	6.98	7.42
69	10.13	9.22	9.50	8.09	7.20	7.61
70	10.39	9.04	9.67	8.36	7.11	7.80
71	10.68	9.29	9.85	8.65	7.35	7.99
72	10.99	9.56	10.03	8.96	7.62	8.19
73	11.32	9.85	10.21	9.30	7.90	8.40
74	11.68	10.17	10.40	9.66	8.21	8.61
75	12.08	10.02	10.59	10.05	8.04	8.82

## TABLE 2 Joint Life Annuities

### Monthly Annuity Factors per \$1,000 Account Balance

**Instructions:** Table 2 contains eight sections. Tables 2A – 2D include the monthly annuity factors for the joint life *level payment* options (with 100% or 50% to the survivor, and with or without the cash refund feature). Tables 2E – 2H contain the annuity factors for the *increasing payment* options. Be sure you use the section of the table that matches your annuity choice.

When you have found the correct section of this table, find your age (at the expected annuity purchase date) in the left-hand column headed “Primary Annuitant’s Age.” Then find the column corresponding to the **age difference** be-

tween you and your joint annuitant, which you calculated on line (4) of the worksheet. The table includes joint annuitant age differences from 10 years younger than you to 10 years older. (If the age difference between you and your joint annuitant exceeds 10 years, ask the TSP Service Office, your agency personnel office, or your service TSP representative for the information you need from the *Thrift Savings Plan Comprehensive Tables of Annuity Rates*, February 2001 edition.) Find the number where the row for your age intersects the column for the age difference. Enter that number on the worksheet on line (7).

## 2A. Level Payment – No Cash Refund: 100% to Survivor

### Joint Annuitant's Age

Primary Annuitant's Age	Years Younger										Same Age	Years Older									
	10	9	8	7	6	5	4	3	2	1		1	2	3	4	5	6	7	8	9	10
45	\$6.66	\$6.67	\$6.68	\$6.70	\$6.71	\$6.72	\$6.74	\$6.75	\$6.76	\$6.78	\$6.79	\$6.81	\$6.82	\$6.83	\$6.85	\$6.86	\$6.87	\$6.89	\$6.90	\$6.91	\$6.93
46	6.68	6.69	6.71	6.72	6.73	6.75	6.76	6.78	6.79	6.81	6.82	6.84	6.85	6.86	6.88	6.89	6.91	6.92	6.94	6.95	6.97
47	6.70	6.71	6.73	6.74	6.76	6.77	6.79	6.80	6.82	6.84	6.85	6.87	6.88	6.90	6.91	6.93	6.95	6.96	6.98	6.99	7.01
48	6.72	6.74	6.75	6.77	6.78	6.80	6.82	6.83	6.85	6.87	6.88	6.90	6.92	6.94	6.95	6.97	6.99	7.00	7.02	7.04	7.05
49	6.75	6.76	6.78	6.79	6.81	6.83	6.85	6.86	6.88	6.90	6.92	6.94	6.96	6.97	6.99	7.01	7.03	7.05	7.06	7.08	7.10
50	6.77	6.79	6.81	6.82	6.84	6.86	6.88	6.90	6.92	6.94	6.96	6.98	7.00	7.02	7.04	7.06	7.07	7.09	7.11	7.13	7.15
51	6.80	6.82	6.84	6.85	6.87	6.89	6.91	6.94	6.96	6.98	7.00	7.02	7.04	7.06	7.08	7.10	7.12	7.14	7.16	7.18	7.20
52	6.83	6.85	6.87	6.89	6.91	6.93	6.95	6.97	7.00	7.02	7.04	7.06	7.09	7.11	7.13	7.15	7.18	7.20	7.22	7.24	7.26
53	6.86	6.88	6.90	6.92	6.95	6.97	6.99	7.02	7.04	7.06	7.09	7.11	7.14	7.16	7.18	7.21	7.23	7.26	7.28	7.30	7.33
54	6.89	6.91	6.94	6.96	6.99	7.01	7.04	7.06	7.09	7.11	7.14	7.16	7.19	7.22	7.24	7.27	7.29	7.32	7.34	7.37	7.39
55	6.93	6.95	6.98	7.00	7.03	7.06	7.08	7.11	7.14	7.16	7.19	7.22	7.25	7.28	7.30	7.33	7.36	7.39	7.41	7.44	7.47
56	6.97	6.99	7.02	7.05	7.07	7.10	7.13	7.16	7.19	7.22	7.25	7.28	7.31	7.34	7.37	7.40	7.43	7.46	7.49	7.52	7.54
57	7.01	7.04	7.06	7.09	7.12	7.15	7.18	7.22	7.25	7.28	7.31	7.34	7.38	7.41	7.44	7.47	7.51	7.54	7.57	7.60	7.63
58	7.05	7.08	7.11	7.14	7.18	7.21	7.24	7.28	7.31	7.34	7.38	7.41	7.45	7.48	7.52	7.55	7.59	7.62	7.65	7.69	7.72
59	7.10	7.13	7.16	7.20	7.23	7.27	7.30	7.34	7.38	7.41	7.45	7.49	7.53	7.57	7.60	7.64	7.68	7.71	7.75	7.78	7.82
60	7.15	7.18	7.22	7.26	7.29	7.33	7.37	7.41	7.45	7.49	7.53	7.57	7.61	7.65	7.69	7.73	7.77	7.81	7.85	7.88	7.92
61	7.20	7.24	7.28	7.32	7.36	7.40	7.44	7.48	7.53	7.57	7.61	7.66	7.70	7.75	7.79	7.83	7.87	7.92	7.96	8.00	8.03
62	7.26	7.30	7.34	7.39	7.43	7.47	7.52	7.57	7.61	7.66	7.71	7.75	7.80	7.85	7.89	7.94	7.98	8.03	8.07	8.12	8.16
63	7.33	7.37	7.41	7.46	7.51	7.55	7.60	7.65	7.70	7.75	7.80	7.85	7.91	7.96	8.01	8.06	8.10	8.15	8.20	8.24	8.29
64	7.39	7.44	7.49	7.54	7.59	7.64	7.69	7.75	7.80	7.85	7.91	7.96	8.02	8.07	8.13	8.18	8.23	8.29	8.34	8.38	8.43
65	7.47	7.52	7.57	7.62	7.68	7.73	7.79	7.85	7.91	7.96	8.02	8.08	8.14	8.20	8.26	8.32	8.37	8.43	8.48	8.54	8.59
66	7.54	7.60	7.65	7.71	7.77	7.83	7.89	7.96	8.02	8.08	8.15	8.21	8.27	8.34	8.40	8.46	8.52	8.58	8.64	8.70	8.75
67	7.63	7.69	7.75	7.81	7.87	7.94	8.01	8.07	8.14	8.21	8.28	8.35	8.42	8.49	8.55	8.62	8.69	8.75	8.81	8.87	8.93
68	7.72	7.78	7.85	7.92	7.98	8.06	8.13	8.20	8.27	8.35	8.42	8.50	8.57	8.65	8.72	8.79	8.86	8.93	9.00	9.06	9.12
69	7.82	7.88	7.96	8.03	8.10	8.18	8.26	8.34	8.42	8.50	8.58	8.66	8.74	8.82	8.90	8.98	9.05	9.13	9.20	9.27	9.33
70	7.92	8.00	8.07	8.15	8.23	8.32	8.40	8.49	8.57	8.66	8.75	8.84	8.92	9.01	9.09	9.18	9.26	9.34	9.41	9.49	9.56
71	8.03	8.12	8.20	8.29	8.37	8.46	8.55	8.65	8.74	8.84	8.93	9.02	9.12	9.21	9.30	9.39	9.48	9.57	9.65	9.73	9.80
72	8.16	8.24	8.34	8.43	8.52	8.62	8.72	8.82	8.92	9.02	9.13	9.23	9.33	9.43	9.53	9.63	9.72	9.81	9.90	9.98	10.06
73	8.29	8.38	8.48	8.58	8.69	8.79	8.90	9.01	9.12	9.23	9.34	9.45	9.56	9.67	9.78	9.88	9.98	10.08	10.17	10.26	10.35
74	8.43	8.54	8.64	8.75	8.86	8.98	9.09	9.21	9.33	9.45	9.57	9.69	9.81	9.93	10.04	10.15	10.26	10.37	10.47	10.56	10.66
75	8.59	8.70	8.81	8.93	9.05	9.18	9.30	9.43	9.56	9.69	9.82	9.95	10.08	10.20	10.33	10.45	10.57	10.68	10.79	10.89	10.99

## 2B. Level Payment – No Cash Refund: 50% to Survivor

### Joint Annuitant's Age

Primary Annuitant's Age	Years Younger										Same Age	Years Older									
	10	9	8	7	6	5	4	3	2	1		1	2	3	4	5	6	7	8	9	10
45	\$7.01	\$7.03	\$7.04	\$7.06	\$7.08	\$7.10	\$7.12	\$7.14	\$7.16	\$7.18	\$7.21	\$7.23	\$7.26	\$7.29	\$7.32	\$7.35	\$7.38	\$7.42	\$7.46	\$7.49	\$7.54
46	7.05	7.07	7.08	7.10	7.12	7.14	7.16	7.18	7.21	7.23	7.26	7.29	7.32	7.35	7.38	7.41	7.45	7.48	7.52	7.56	7.61
47	7.09	7.11	7.13	7.15	7.17	7.19	7.21	7.24	7.26	7.29	7.31	7.34	7.37	7.41	7.44	7.48	7.51	7.55	7.59	7.64	7.68
48	7.14	7.16	7.18	7.20	7.22	7.24	7.26	7.29	7.32	7.34	7.37	7.40	7.44	7.47	7.51	7.54	7.58	7.62	7.67	7.72	7.77
49	7.19	7.20	7.23	7.25	7.27	7.29	7.32	7.35	7.37	7.40	7.43	7.47	7.50	7.54	7.58	7.62	7.66	7.70	7.75	7.80	7.85
50	7.24	7.26	7.28	7.30	7.33	7.35	7.38	7.41	7.44	7.47	7.50	7.53	7.57	7.61	7.65	7.69	7.74	7.78	7.83	7.89	7.95
51	7.29	7.31	7.33	7.36	7.38	7.41	7.44	7.47	7.50	7.53	7.57	7.61	7.64	7.69	7.73	7.77	7.82	7.87	7.93	7.98	8.04
52	7.34	7.37	7.39	7.42	7.45	7.48	7.51	7.54	7.57	7.61	7.64	7.68	7.72	7.77	7.81	7.86	7.91	7.97	8.02	8.09	8.15
53	7.40	7.43	7.46	7.48	7.51	7.54	7.58	7.61	7.64	7.68	7.72	7.76	7.81	7.85	7.90	7.95	8.01	8.07	8.13	8.20	8.26
54	7.47	7.49	7.52	7.55	7.58	7.62	7.65	7.69	7.72	7.76	7.80	7.85	7.90	7.95	8.00	8.05	8.11	8.18	8.24	8.31	8.39
55	7.54	7.56	7.59	7.62	7.66	7.69	7.73	7.77	7.81	7.85	7.89	7.94	7.99	8.04	8.10	8.16	8.22	8.29	8.36	8.44	8.52
56	7.61	7.64	7.67	7.70	7.74	7.77	7.81	7.85	7.90	7.94	7.99	8.04	8.09	8.15	8.21	8.28	8.34	8.42	8.49	8.57	8.65
57	7.68	7.72	7.75	7.78	7.82	7.86	7.90	7.95	7.99	8.04	8.09	8.15	8.20	8.26	8.33	8.40	8.47	8.55	8.63	8.71	8.80
58	7.77	7.80	7.83	7.87	7.91	7.95	8.00	8.04	8.09	8.15	8.20	8.26	8.32	8.39	8.46	8.53	8.61	8.69	8.78	8.87	8.96
59	7.85	7.89	7.93	7.97	8.01	8.05	8.10	8.15	8.20	8.26	8.32	8.38	8.45	8.52	8.59	8.67	8.76	8.84	8.94	9.03	9.13
60	7.95	7.98	8.02	8.07	8.11	8.16	8.21	8.26	8.32	8.38	8.45	8.51	8.59	8.66	8.74	8.83	8.92	9.01	9.11	9.21	9.32
61	8.04	8.09	8.13	8.18	8.22	8.28	8.33	8.39	8.45	8.51	8.58	8.66	8.73	8.82	8.90	8.99	9.09	9.19	9.29	9.40	9.52
62	8.15	8.20	8.24	8.29	8.34	8.40	8.46	8.52	8.59	8.66	8.73	8.81	8.89	8.98	9.07	9.17	9.27	9.38	9.49	9.61	9.73
63	8.26	8.31	8.36	8.42	8.47	8.53	8.59	8.66	8.73	8.81	8.89	8.97	9.06	9.16	9.26	9.36	9.47	9.58	9.70	9.83	9.96
64	8.39	8.44	8.49	8.55	8.61	8.67	8.74	8.82	8.89	8.97	9.06	9.15	9.25	9.35	9.45	9.56	9.68	9.80	9.93	10.07	10.21
65	8.52	8.57	8.63	8.69	8.76	8.83	8.90	8.98	9.06	9.15	9.24	9.34	9.44	9.55	9.67	9.78	9.91	10.04	10.18	10.32	10.47
66	8.65	8.71	8.78	8.84	8.92	8.99	9.07	9.16	9.25	9.34	9.44	9.55	9.66	9.77	9.89	10.02	10.16	10.30	10.44	10.60	10.76
67	8.80	8.87	8.94	9.01	9.09	9.17	9.26	9.35	9.44	9.55	9.65	9.77	9.88	10.01	10.14	10.28	10.42	10.57	10.73	10.89	11.06
68	8.96	9.03	9.11	9.19	9.27	9.36	9.45	9.55	9.66	9.77	9.88	10.00	10.13	10.27	10.41	10.55	10.71	10.87	11.04	11.21	11.39
69	9.13	9.21	9.29	9.38	9.47	9.56	9.67	9.77	9.88	10.00	10.13	10.26	10.40	10.54	10.69	10.85	11.02	11.19	11.37	11.55	11.75
70	9.32	9.40	9.49	9.58	9.68	9.78	9.89	10.01	10.13	10.26	10.39	10.53	10.68	10.84	11.00	11.17	11.35	11.53	11.72	11.92	12.13
71	9.52	9.61	9.70	9.80	9.91	10.02	10.14	10.27	10.40	10.53	10.68	10.83	10.99	11.16	11.33	11.52	11.71	11.90	12.11	12.32	12.54
72	9.73	9.83	9.93	10.04	10.16	10.28	10.41	10.54	10.68	10.83	10.99	11.15	11.33	11.51	11.69	11.89	12.09	12.30	12.52	12.75	12.97
73	9.96	10.07	10.18	10.30	10.42	10.55	10.69	10.84	10.99	11.15	11.32	11.50	11.69	11.88	12.08	12.29	12.51	12.74	12.97	13.21	13.45
74	10.21	10.32	10.44	10.57	10.71	10.85	11.00	11.16	11.33	11.50	11.68	11.88	12.08	12.29	12.50	12.73	12.96	13.20	13.45	13.70	13.95
75	10.47	10.60	10.73	10.87	11.02	11.17	11.33	11.51	11.69	11.88	12.08	12.28	12.50	12.72	12.96	13.20	13.45	13.70	13.96	14.23	14.50

## 2C. Level Payment – With Cash Refund: 100% to Survivor

### Joint Annuitant's Age

Primary Annuitant's Age	Years Younger										Same Age	Years Older									
	10	9	8	7	6	5	4	3	2	1		1	2	3	4	5	6	7	8	9	10
45	\$6.59	\$6.60	\$6.62	\$6.63	\$6.64	\$6.66	\$6.67	\$6.68	\$6.70	\$6.71	\$6.72	\$6.74	\$6.75	\$6.76	\$6.78	\$6.79	\$6.81	\$6.82	\$6.83	\$6.85	\$6.86
46	6.61	6.62	6.64	6.65	6.67	6.68	6.69	6.71	6.72	6.74	6.75	6.77	6.78	6.80	6.81	6.83	6.84	6.85	6.87	6.88	6.90
47	6.63	6.65	6.66	6.67	6.69	6.70	6.72	6.74	6.75	6.77	6.78	6.80	6.81	6.83	6.85	6.86	6.88	6.89	6.91	6.92	6.94
48	6.65	6.67	6.68	6.70	6.72	6.73	6.75	6.76	6.78	6.80	6.82	6.83	6.85	6.87	6.88	6.90	6.92	6.93	6.95	6.96	6.98
49	6.68	6.69	6.71	6.73	6.74	6.76	6.78	6.80	6.81	6.83	6.85	6.87	6.89	6.90	6.92	6.94	6.96	6.98	6.99	7.01	7.03
50	6.70	6.72	6.74	6.76	6.77	6.79	6.81	6.83	6.85	6.87	6.89	6.91	6.93	6.95	6.97	6.98	7.00	7.02	7.04	7.06	7.08
51	6.73	6.75	6.77	6.79	6.81	6.83	6.85	6.87	6.89	6.91	6.93	6.95	6.97	6.99	7.01	7.03	7.05	7.07	7.09	7.11	7.13
52	6.76	6.78	6.80	6.82	6.84	6.86	6.88	6.90	6.93	6.95	6.97	6.99	7.02	7.04	7.06	7.08	7.10	7.13	7.15	7.17	7.19
53	6.79	6.81	6.83	6.85	6.88	6.90	6.92	6.95	6.97	6.99	7.02	7.04	7.07	7.09	7.11	7.14	7.16	7.18	7.21	7.23	7.25
54	6.82	6.85	6.87	6.89	6.92	6.94	6.97	6.99	7.02	7.04	7.07	7.09	7.12	7.14	7.17	7.20	7.22	7.25	7.27	7.30	7.32
55	6.86	6.88	6.91	6.93	6.96	6.98	7.01	7.04	7.07	7.09	7.12	7.15	7.18	7.20	7.23	7.26	7.29	7.31	7.34	7.37	7.39
56	6.90	6.92	6.95	6.98	7.00	7.03	7.06	7.09	7.12	7.15	7.18	7.21	7.24	7.27	7.30	7.33	7.36	7.38	7.41	7.44	7.47
57	6.94	6.96	6.99	7.02	7.05	7.08	7.11	7.14	7.18	7.21	7.24	7.27	7.30	7.34	7.37	7.40	7.43	7.46	7.49	7.52	7.55
58	6.98	7.01	7.04	7.07	7.10	7.14	7.17	7.20	7.24	7.27	7.31	7.34	7.38	7.41	7.44	7.48	7.51	7.55	7.58	7.61	7.64
59	7.03	7.06	7.09	7.13	7.16	7.20	7.23	7.27	7.30	7.34	7.38	7.41	7.45	7.49	7.53	7.56	7.60	7.64	7.67	7.70	7.74
60	7.08	7.11	7.15	7.18	7.22	7.26	7.30	7.34	7.38	7.41	7.45	7.50	7.54	7.58	7.62	7.65	7.69	7.73	7.77	7.81	7.84
61	7.13	7.17	7.21	7.25	7.29	7.33	7.37	7.41	7.45	7.50	7.54	7.58	7.63	7.67	7.71	7.75	7.80	7.84	7.88	7.92	7.95
62	7.19	7.23	7.27	7.31	7.36	7.40	7.44	7.49	7.54	7.58	7.63	7.68	7.72	7.77	7.81	7.86	7.91	7.95	7.99	8.03	8.08
63	7.25	7.30	7.34	7.38	7.43	7.48	7.53	7.58	7.63	7.68	7.73	7.78	7.83	7.88	7.93	7.98	8.02	8.07	8.12	8.16	8.21
64	7.32	7.37	7.41	7.46	7.51	7.56	7.62	7.67	7.72	7.78	7.83	7.88	7.94	7.99	8.05	8.10	8.15	8.20	8.25	8.30	8.35
65	7.39	7.44	7.49	7.55	7.60	7.65	7.71	7.77	7.83	7.88	7.94	8.00	8.06	8.12	8.18	8.23	8.29	8.34	8.40	8.45	8.50
66	7.47	7.52	7.58	7.64	7.69	7.75	7.81	7.88	7.94	8.00	8.07	8.13	8.19	8.26	8.32	8.38	8.44	8.50	8.55	8.61	8.66
67	7.55	7.61	7.67	7.73	7.80	7.86	7.93	7.99	8.06	8.13	8.20	8.27	8.33	8.40	8.47	8.54	8.60	8.66	8.72	8.78	8.84
68	7.64	7.70	7.77	7.84	7.91	7.98	8.05	8.12	8.19	8.27	8.34	8.41	8.49	8.56	8.63	8.70	8.77	8.84	8.91	8.97	9.03
69	7.74	7.81	7.88	7.95	8.02	8.10	8.18	8.26	8.33	8.41	8.49	8.57	8.65	8.73	8.81	8.89	8.96	9.04	9.11	9.17	9.24
70	7.84	7.92	7.99	8.07	8.15	8.23	8.32	8.40	8.49	8.57	8.66	8.75	8.83	8.92	9.00	9.08	9.17	9.24	9.32	9.39	9.46
71	7.95	8.03	8.12	8.20	8.29	8.38	8.47	8.56	8.65	8.75	8.84	8.93	9.03	9.12	9.21	9.30	9.39	9.47	9.55	9.63	9.70
72	8.08	8.16	8.25	8.34	8.44	8.54	8.63	8.73	8.83	8.93	9.04	9.14	9.24	9.34	9.43	9.53	9.62	9.71	9.80	9.88	9.96
73	8.21	8.30	8.40	8.50	8.60	8.70	8.81	8.92	9.03	9.14	9.25	9.36	9.46	9.57	9.68	9.78	9.88	9.98	10.07	10.16	10.25
74	8.35	8.45	8.55	8.66	8.77	8.89	9.00	9.12	9.24	9.36	9.47	9.59	9.71	9.83	9.94	10.05	10.16	10.26	10.36	10.46	10.55
75	8.41	8.52	8.64	8.75	8.87	8.99	9.12	9.24	9.37	9.50	9.62	9.75	9.88	10.00	10.12	10.24	10.35	10.47	10.57	10.67	10.77



## 2D. Level Payment – With Cash Refund: 50% to Survivor

### Joint Annuitant's Age

Primary Annuitant's Age	Years Younger										Same Age	Years Older									
	10	9	8	7	6	5	4	3	2	1		1	2	3	4	5	6	7	8	9	10
45	\$6.94	\$6.96	\$6.97	\$6.99	\$7.01	\$7.03	\$7.04	\$7.07	\$7.09	\$7.11	\$7.14	\$7.16	\$7.19	\$7.22	\$7.25	\$7.28	\$7.31	\$7.34	\$7.38	\$7.42	\$7.46
46	6.98	7.00	7.01	7.03	7.05	7.07	7.09	7.11	7.14	7.16	7.19	7.21	7.24	7.27	7.30	7.34	7.37	7.41	7.45	7.49	7.53
47	7.02	7.04	7.06	7.08	7.10	7.12	7.14	7.16	7.19	7.21	7.24	7.27	7.30	7.33	7.37	7.40	7.44	7.48	7.52	7.56	7.61
48	7.07	7.08	7.10	7.12	7.15	7.17	7.19	7.22	7.24	7.27	7.30	7.33	7.36	7.40	7.43	7.47	7.51	7.55	7.59	7.64	7.69
49	7.11	7.13	7.15	7.17	7.20	7.22	7.25	7.27	7.30	7.33	7.36	7.39	7.43	7.46	7.50	7.54	7.58	7.63	7.67	7.72	7.77
50	7.16	7.18	7.20	7.23	7.25	7.28	7.30	7.33	7.36	7.39	7.43	7.46	7.50	7.53	7.57	7.62	7.66	7.71	7.76	7.81	7.87
51	7.22	7.24	7.26	7.28	7.31	7.34	7.37	7.40	7.43	7.46	7.49	7.53	7.57	7.61	7.65	7.70	7.74	7.79	7.85	7.90	7.96
52	7.27	7.29	7.32	7.34	7.37	7.40	7.43	7.46	7.50	7.53	7.57	7.61	7.65	7.69	7.73	7.78	7.83	7.89	7.94	8.01	8.07
53	7.33	7.35	7.38	7.41	7.44	7.47	7.50	7.53	7.57	7.61	7.64	7.69	7.73	7.77	7.82	7.87	7.93	7.99	8.05	8.11	8.18
54	7.39	7.42	7.45	7.48	7.51	7.54	7.57	7.61	7.65	7.69	7.73	7.77	7.82	7.87	7.92	7.97	8.03	8.09	8.16	8.23	8.30
55	7.38	7.41	7.44	7.47	7.50	7.54	7.57	7.61	7.65	7.69	7.74	7.78	7.83	7.88	7.94	8.00	8.06	8.13	8.19	8.27	8.35
56	7.45	7.48	7.52	7.55	7.58	7.62	7.66	7.70	7.74	7.78	7.83	7.88	7.93	7.99	8.05	8.11	8.18	8.25	8.32	8.40	8.48
57	7.53	7.56	7.59	7.63	7.67	7.70	7.74	7.79	7.83	7.88	7.93	7.98	8.04	8.10	8.16	8.23	8.30	8.38	8.46	8.54	8.63
58	7.61	7.64	7.68	7.72	7.75	7.79	7.84	7.88	7.93	7.98	8.04	8.09	8.16	8.22	8.29	8.36	8.44	8.52	8.60	8.69	8.78
59	7.70	7.73	7.77	7.81	7.85	7.89	7.94	7.99	8.04	8.09	8.15	8.21	8.28	8.35	8.42	8.50	8.58	8.67	8.76	8.85	8.95
60	7.71	7.74	7.78	7.83	7.87	7.92	7.96	8.02	8.07	8.13	8.19	8.26	8.33	8.40	8.48	8.56	8.65	8.74	8.83	8.93	9.04
61	7.80	7.84	7.89	7.93	7.98	8.03	8.08	8.14	8.20	8.26	8.33	8.40	8.47	8.55	8.63	8.72	8.81	8.91	9.01	9.12	9.23
62	7.91	7.95	7.99	8.04	8.09	8.15	8.20	8.26	8.33	8.40	8.47	8.55	8.63	8.71	8.80	8.89	8.99	9.10	9.20	9.32	9.44
63	8.02	8.06	8.11	8.16	8.22	8.28	8.34	8.40	8.47	8.55	8.62	8.70	8.79	8.88	8.98	9.08	9.18	9.30	9.41	9.53	9.66
64	8.13	8.18	8.24	8.29	8.35	8.41	8.48	8.55	8.63	8.70	8.79	8.88	8.97	9.07	9.17	9.28	9.39	9.51	9.63	9.76	9.90
65	8.18	8.23	8.28	8.34	8.41	8.47	8.55	8.62	8.70	8.79	8.87	8.97	9.07	9.17	9.28	9.39	9.51	9.64	9.77	9.91	10.05
66	8.31	8.37	8.43	8.49	8.56	8.63	8.71	8.79	8.88	8.97	9.06	9.16	9.27	9.38	9.50	9.62	9.75	9.89	10.03	10.17	10.33
67	8.45	8.51	8.58	8.65	8.72	8.80	8.89	8.97	9.07	9.16	9.27	9.38	9.49	9.61	9.73	9.87	10.01	10.15	10.30	10.46	10.62
68	8.60	8.67	8.74	8.82	8.90	8.98	9.08	9.17	9.27	9.38	9.49	9.60	9.73	9.85	9.99	10.13	10.28	10.43	10.60	10.76	10.94
69	8.77	8.84	8.92	9.00	9.09	9.18	9.28	9.38	9.49	9.60	9.72	9.85	9.98	10.12	10.26	10.42	10.58	10.74	10.91	11.09	11.28
70	8.76	8.84	8.92	9.01	9.10	9.20	9.30	9.41	9.52	9.64	9.77	9.90	10.04	10.19	10.34	10.50	10.67	10.84	11.02	11.21	11.40
71	8.95	9.03	9.12	9.22	9.32	9.42	9.53	9.65	9.77	9.90	10.04	10.18	10.33	10.49	10.65	10.83	11.00	11.19	11.38	11.58	11.78
72	9.15	9.24	9.34	9.44	9.55	9.66	9.78	9.91	10.04	10.18	10.33	10.48	10.65	10.82	10.99	11.18	11.37	11.57	11.77	11.98	12.20
73	9.36	9.46	9.57	9.68	9.80	9.92	10.05	10.19	10.33	10.48	10.64	10.81	10.99	11.17	11.36	11.56	11.76	11.97	12.19	12.41	12.64
74	9.59	9.70	9.82	9.94	10.07	10.20	10.34	10.49	10.65	10.81	10.98	11.16	11.35	11.55	11.75	11.97	12.18	12.41	12.64	12.88	13.12
75	9.63	9.75	9.87	10.00	10.13	10.28	10.43	10.59	10.75	10.93	11.11	11.30	11.50	11.71	11.92	12.14	12.37	12.61	12.85	13.09	13.34

## 2E. Increasing Payment – No Cash Refund: 100% to Survivor

### Joint Annuitant's Age

Primary Annuitant's Age	Years Younger										Same Age	Years Older									
	10	9	8	7	6	5	4	3	2	1		1	2	3	4	5	6	7	8	9	10
45	\$4.32	\$4.34	\$4.36	\$4.38	\$4.40	\$4.42	\$4.44	\$4.46	\$4.48	\$4.51	\$4.53	\$4.55	\$4.57	\$4.59	\$4.60	\$4.62	\$4.64	\$4.66	\$4.68	\$4.69	\$4.71
46	4.35	4.37	4.39	4.41	4.44	4.46	4.48	4.50	4.52	4.55	4.57	4.59	4.61	4.63	4.65	4.67	4.69	4.71	4.72	4.74	4.76
47	4.38	4.40	4.43	4.45	4.47	4.50	4.52	4.54	4.57	4.59	4.61	4.63	4.66	4.68	4.70	4.72	4.74	4.76	4.78	4.80	4.81
48	4.42	4.44	4.46	4.49	4.51	4.54	4.56	4.59	4.61	4.63	4.66	4.68	4.70	4.73	4.75	4.77	4.79	4.81	4.83	4.85	4.87
49	4.45	4.48	4.50	4.53	4.55	4.58	4.60	4.63	4.66	4.68	4.71	4.73	4.76	4.78	4.80	4.83	4.85	4.87	4.89	4.91	4.93
50	4.49	4.51	4.54	4.57	4.60	4.62	4.65	4.68	4.70	4.73	4.76	4.78	4.81	4.83	4.86	4.88	4.91	4.93	4.95	4.97	5.00
51	4.53	4.56	4.58	4.61	4.64	4.67	4.70	4.73	4.76	4.78	4.81	4.84	4.87	4.89	4.92	4.95	4.97	4.99	5.02	5.04	5.06
52	4.57	4.60	4.63	4.66	4.69	4.72	4.75	4.78	4.81	4.84	4.87	4.90	4.93	4.96	4.98	5.01	5.04	5.06	5.09	5.11	5.14
53	4.61	4.64	4.68	4.71	4.74	4.77	4.80	4.83	4.87	4.90	4.93	4.96	4.99	5.02	5.05	5.08	5.11	5.13	5.16	5.19	5.21
54	4.66	4.69	4.72	4.76	4.79	4.83	4.86	4.89	4.93	4.96	4.99	5.03	5.06	5.09	5.12	5.15	5.18	5.21	5.24	5.27	5.29
55	4.71	4.74	4.78	4.81	4.85	4.88	4.92	4.96	4.99	5.03	5.06	5.10	5.13	5.16	5.20	5.23	5.26	5.29	5.32	5.35	5.38
56	4.76	4.80	4.83	4.87	4.91	4.95	4.98	5.02	5.06	5.10	5.13	5.17	5.21	5.24	5.28	5.31	5.35	5.38	5.41	5.44	5.47
57	4.81	4.85	4.89	4.93	4.97	5.01	5.05	5.09	5.13	5.17	5.21	5.25	5.29	5.33	5.36	5.40	5.44	5.47	5.50	5.54	5.57
58	4.87	4.91	4.95	4.99	5.04	5.08	5.12	5.16	5.21	5.25	5.29	5.33	5.37	5.41	5.45	5.49	5.53	5.57	5.60	5.64	5.67
59	4.93	4.97	5.02	5.06	5.11	5.15	5.20	5.24	5.29	5.33	5.38	5.42	5.47	5.51	5.55	5.59	5.63	5.67	5.71	5.75	5.78
60	5.00	5.04	5.09	5.13	5.18	5.23	5.28	5.33	5.37	5.42	5.47	5.52	5.56	5.61	5.65	5.70	5.74	5.78	5.82	5.86	5.90
61	5.06	5.11	5.16	5.21	5.26	5.31	5.36	5.41	5.47	5.52	5.57	5.62	5.67	5.72	5.77	5.81	5.86	5.90	5.94	5.98	6.02
62	5.14	5.19	5.24	5.29	5.35	5.40	5.45	5.51	5.56	5.62	5.67	5.73	5.78	5.83	5.88	5.93	5.98	6.03	6.07	6.12	6.16
63	5.21	5.27	5.32	5.38	5.44	5.49	5.55	5.61	5.67	5.73	5.78	5.84	5.90	5.95	6.01	6.06	6.11	6.16	6.21	6.26	6.30
64	5.29	5.35	5.41	5.47	5.53	5.59	5.65	5.72	5.78	5.84	5.90	5.97	6.03	6.09	6.14	6.20	6.26	6.31	6.36	6.41	6.46
65	5.38	5.44	5.50	5.57	5.63	5.70	5.77	5.83	5.90	5.97	6.03	6.10	6.16	6.23	6.29	6.35	6.41	6.46	6.52	6.57	6.62
66	5.47	5.54	5.60	5.67	5.74	5.81	5.88	5.95	6.03	6.10	6.17	6.24	6.31	6.38	6.44	6.51	6.57	6.63	6.69	6.75	6.80
67	5.57	5.64	5.71	5.78	5.86	5.93	6.01	6.09	6.16	6.24	6.32	6.39	6.46	6.54	6.61	6.68	6.75	6.81	6.87	6.93	6.99
68	5.67	5.75	5.82	5.90	5.98	6.06	6.14	6.23	6.31	6.39	6.47	6.55	6.63	6.71	6.79	6.86	6.93	7.00	7.07	7.13	7.19
69	5.78	5.86	5.94	6.03	6.11	6.20	6.29	6.38	6.46	6.55	6.64	6.73	6.81	6.90	6.98	7.06	7.13	7.21	7.28	7.35	7.41
70	5.90	5.98	6.07	6.16	6.26	6.35	6.44	6.54	6.63	6.73	6.82	6.91	7.00	7.09	7.18	7.27	7.35	7.43	7.50	7.58	7.64
71	6.02	6.12	6.21	6.31	6.41	6.51	6.61	6.71	6.81	6.91	7.01	7.11	7.21	7.31	7.40	7.49	7.58	7.67	7.75	7.82	7.90
72	6.16	6.26	6.36	6.46	6.57	6.68	6.79	6.90	7.00	7.11	7.22	7.33	7.44	7.54	7.64	7.74	7.83	7.92	8.01	8.09	8.17
73	6.30	6.41	6.52	6.63	6.75	6.86	6.98	7.09	7.21	7.33	7.45	7.56	7.68	7.79	7.89	8.00	8.10	8.20	8.29	8.38	8.46
74	6.46	6.57	6.69	6.81	6.93	7.06	7.18	7.31	7.44	7.56	7.69	7.81	7.93	8.05	8.17	8.28	8.39	8.49	8.59	8.68	8.77
75	6.62	6.75	6.87	7.00	7.13	7.27	7.40	7.54	7.68	7.81	7.95	8.08	8.21	8.34	8.47	8.59	8.70	8.81	8.92	9.02	9.11

## 2F. Increasing Payment – No Cash Refund: 50% to Survivor

### Joint Annuitant's Age

Primary Annuitant's Age	Years Younger										Same Age	Years Older									
	10	9	8	7	6	5	4	3	2	1		1	2	3	4	5	6	7	8	9	10
45	\$4.71	\$4.73	\$4.76	\$4.78	\$4.80	\$4.83	\$4.85	\$4.88	\$4.91	\$4.93	\$4.96	\$4.99	\$5.03	\$5.06	\$5.09	\$5.13	\$5.17	\$5.20	\$5.24	\$5.29	\$5.33
46	4.76	4.78	4.81	4.83	4.86	4.88	4.91	4.94	4.96	4.99	5.03	5.06	5.09	5.13	5.16	5.20	5.24	5.28	5.32	5.36	5.41
47	4.81	4.84	4.86	4.89	4.91	4.94	4.97	5.00	5.03	5.06	5.09	5.12	5.16	5.20	5.23	5.27	5.31	5.36	5.40	5.45	5.49
48	4.87	4.89	4.92	4.94	4.97	5.00	5.03	5.06	5.09	5.12	5.16	5.19	5.23	5.27	5.31	5.35	5.39	5.44	5.49	5.53	5.58
49	4.92	4.95	4.98	5.00	5.03	5.06	5.09	5.13	5.16	5.19	5.23	5.27	5.31	5.35	5.39	5.43	5.48	5.53	5.57	5.63	5.68
50	4.98	5.01	5.04	5.07	5.10	5.13	5.16	5.20	5.23	5.27	5.31	5.35	5.39	5.43	5.47	5.52	5.57	5.62	5.67	5.72	5.78
51	5.04	5.07	5.10	5.13	5.17	5.20	5.23	5.27	5.31	5.35	5.39	5.43	5.47	5.52	5.56	5.61	5.66	5.71	5.77	5.83	5.89
52	5.11	5.14	5.17	5.20	5.24	5.27	5.31	5.35	5.39	5.43	5.47	5.51	5.56	5.61	5.66	5.71	5.76	5.82	5.88	5.94	6.00
53	5.18	5.21	5.24	5.28	5.31	5.35	5.39	5.43	5.47	5.51	5.56	5.60	5.65	5.70	5.76	5.81	5.87	5.93	5.99	6.06	6.12
54	5.25	5.29	5.32	5.36	5.39	5.43	5.47	5.52	5.56	5.60	5.65	5.70	5.75	5.80	5.86	5.92	5.98	6.04	6.11	6.18	6.25
55	5.33	5.36	5.40	5.44	5.48	5.52	5.56	5.61	5.65	5.70	5.75	5.80	5.86	5.91	5.97	6.04	6.10	6.17	6.24	6.31	6.39
56	5.41	5.45	5.49	5.53	5.57	5.61	5.66	5.70	5.75	5.80	5.86	5.91	5.97	6.03	6.09	6.16	6.23	6.30	6.37	6.45	6.53
57	5.49	5.53	5.57	5.62	5.66	5.71	5.76	5.80	5.86	5.91	5.97	6.03	6.09	6.15	6.22	6.29	6.36	6.44	6.52	6.60	6.69
58	5.58	5.63	5.67	5.71	5.76	5.81	5.86	5.91	5.97	6.03	6.09	6.15	6.22	6.28	6.36	6.43	6.51	6.59	6.67	6.76	6.85
59	5.68	5.72	5.77	5.82	5.87	5.92	5.97	6.03	6.09	6.15	6.21	6.28	6.35	6.42	6.50	6.58	6.66	6.75	6.84	6.93	7.03
60	5.78	5.83	5.88	5.93	5.98	6.04	6.09	6.15	6.22	6.28	6.35	6.42	6.50	6.57	6.66	6.74	6.83	6.92	7.02	7.12	7.22
61	5.89	5.94	5.99	6.04	6.10	6.16	6.22	6.28	6.35	6.42	6.49	6.57	6.65	6.74	6.82	6.91	7.01	7.10	7.21	7.31	7.42
62	6.00	6.06	6.11	6.17	6.23	6.29	6.36	6.42	6.50	6.57	6.65	6.73	6.82	6.91	7.00	7.10	7.20	7.30	7.41	7.52	7.64
63	6.12	6.18	6.24	6.30	6.36	6.43	6.50	6.57	6.65	6.73	6.82	6.90	7.00	7.09	7.19	7.29	7.40	7.51	7.62	7.74	7.87
64	6.25	6.31	6.37	6.44	6.51	6.58	6.66	6.74	6.82	6.90	6.99	7.09	7.19	7.29	7.39	7.50	7.62	7.73	7.86	7.98	8.11
65	6.39	6.45	6.52	6.59	6.66	6.74	6.82	6.91	7.00	7.09	7.18	7.28	7.39	7.50	7.61	7.73	7.85	7.98	8.11	8.24	8.38
66	6.53	6.60	6.67	6.75	6.83	6.91	7.00	7.09	7.19	7.28	7.39	7.50	7.61	7.72	7.84	7.97	8.10	8.23	8.37	8.52	8.66
67	6.69	6.76	6.84	6.92	7.01	7.10	7.19	7.29	7.39	7.50	7.61	7.72	7.84	7.97	8.09	8.23	8.37	8.51	8.66	8.81	8.97
68	6.85	6.93	7.02	7.10	7.20	7.29	7.39	7.50	7.61	7.72	7.84	7.96	8.09	8.22	8.36	8.51	8.66	8.81	8.97	9.13	9.30
69	7.03	7.12	7.21	7.30	7.40	7.50	7.61	7.72	7.84	7.96	8.09	8.22	8.36	8.50	8.65	8.81	8.97	9.13	9.30	9.47	9.65
70	7.22	7.31	7.41	7.51	7.62	7.73	7.84	7.97	8.09	8.22	8.36	8.50	8.65	8.80	8.96	9.13	9.30	9.47	9.65	9.84	10.03
71	7.42	7.52	7.62	7.73	7.85	7.97	8.09	8.22	8.36	8.50	8.65	8.80	8.96	9.13	9.30	9.48	9.66	9.84	10.04	10.23	10.43
72	7.64	7.74	7.86	7.98	8.10	8.23	8.36	8.50	8.65	8.80	8.96	9.13	9.30	9.48	9.66	9.85	10.04	10.24	10.45	10.66	10.87
73	7.87	7.98	8.11	8.23	8.37	8.51	8.65	8.80	8.96	9.13	9.30	9.48	9.66	9.85	10.05	10.25	10.46	10.67	10.89	11.11	11.33
74	8.11	8.24	8.37	8.51	8.66	8.81	8.96	9.13	9.30	9.48	9.66	9.85	10.05	10.26	10.47	10.69	10.91	11.13	11.37	11.60	11.84
75	8.38	8.52	8.66	8.81	8.97	9.13	9.30	9.48	9.66	9.85	10.05	10.26	10.47	10.69	10.92	11.15	11.39	11.63	11.88	12.13	12.37

## 2G. Increasing Payment – With Cash Refund: 100% to Survivor

### Joint Annuitant's Age

Primary Annuitant's Age	Years Younger										Same Age	Years Older									
	10	9	8	7	6	5	4	3	2	1		1	2	3	4	5	6	7	8	9	10
45	\$4.28	\$4.30	\$4.32	\$4.34	\$4.36	\$4.38	\$4.40	\$4.42	\$4.44	\$4.46	\$4.48	\$4.50	\$4.52	\$4.54	\$4.56	\$4.58	\$4.59	\$4.61	\$4.63	\$4.64	\$4.66
46	4.31	4.33	4.35	4.37	4.39	4.41	4.44	4.46	4.48	4.50	4.52	4.54	4.56	4.58	4.60	4.62	4.64	4.66	4.68	4.69	4.71
47	4.34	4.36	4.38	4.41	4.43	4.45	4.47	4.50	4.52	4.54	4.57	4.59	4.61	4.63	4.65	4.67	4.69	4.71	4.73	4.75	4.77
48	4.37	4.39	4.42	4.44	4.47	4.49	4.52	4.54	4.56	4.59	4.61	4.63	4.66	4.68	4.70	4.72	4.74	4.76	4.78	4.80	4.82
49	4.41	4.43	4.46	4.48	4.51	4.53	4.56	4.58	4.61	4.63	4.66	4.68	4.71	4.73	4.75	4.78	4.80	4.82	4.84	4.86	4.88
50	4.44	4.47	4.50	4.52	4.55	4.58	4.60	4.63	4.66	4.68	4.71	4.74	4.76	4.79	4.81	4.83	4.86	4.88	4.90	4.92	4.95
51	4.48	4.51	4.54	4.57	4.59	4.62	4.65	4.68	4.71	4.74	4.76	4.79	4.82	4.84	4.87	4.90	4.92	4.94	4.97	4.99	5.01
52	4.52	4.55	4.58	4.61	4.64	4.67	4.70	4.73	4.76	4.79	4.82	4.85	4.88	4.91	4.93	4.96	4.99	5.01	5.04	5.06	5.08
53	4.57	4.60	4.63	4.66	4.69	4.72	4.75	4.79	4.82	4.85	4.88	4.91	4.94	4.97	5.00	5.03	5.06	5.08	5.11	5.13	5.16
54	4.61	4.64	4.68	4.71	4.74	4.78	4.81	4.84	4.88	4.91	4.94	4.98	5.01	5.04	5.07	5.10	5.13	5.16	5.19	5.21	5.24
55	4.66	4.69	4.73	4.76	4.80	4.83	4.87	4.91	4.94	4.98	5.01	5.04	5.08	5.11	5.15	5.18	5.21	5.24	5.27	5.30	5.32
56	4.71	4.75	4.78	4.82	4.86	4.90	4.93	4.97	5.01	5.04	5.08	5.12	5.15	5.19	5.22	5.26	5.29	5.32	5.36	5.39	5.41
57	4.77	4.80	4.84	4.88	4.92	4.96	5.00	5.04	5.08	5.12	5.16	5.20	5.23	5.27	5.31	5.35	5.38	5.42	5.45	5.48	5.51
58	4.82	4.86	4.90	4.94	4.99	5.03	5.07	5.11	5.15	5.20	5.24	5.28	5.32	5.36	5.40	5.44	5.48	5.51	5.55	5.58	5.61
59	4.88	4.92	4.97	5.01	5.06	5.10	5.15	5.19	5.23	5.28	5.32	5.37	5.41	5.45	5.50	5.54	5.58	5.61	5.65	5.69	5.72
60	4.95	4.99	5.04	5.08	5.13	5.18	5.22	5.27	5.32	5.37	5.41	5.46	5.51	5.55	5.60	5.64	5.68	5.72	5.76	5.80	5.84
61	5.01	5.06	5.11	5.16	5.21	5.26	5.31	5.36	5.41	5.46	5.51	5.56	5.61	5.66	5.71	5.75	5.80	5.84	5.88	5.92	5.96
62	5.08	5.13	5.19	5.24	5.29	5.35	5.40	5.45	5.51	5.56	5.62	5.67	5.72	5.77	5.82	5.87	5.92	5.97	6.01	6.06	6.10
63	5.16	5.21	5.27	5.32	5.38	5.44	5.50	5.55	5.61	5.67	5.73	5.78	5.84	5.90	5.95	6.00	6.05	6.10	6.15	6.20	6.24
64	5.24	5.30	5.36	5.42	5.48	5.54	5.60	5.66	5.72	5.78	5.85	5.91	5.97	6.03	6.08	6.14	6.19	6.25	6.30	6.35	6.39
65	5.27	5.33	5.39	5.46	5.52	5.58	5.65	5.72	5.78	5.85	5.91	5.98	6.04	6.10	6.16	6.22	6.28	6.34	6.39	6.44	6.49
66	5.36	5.42	5.49	5.56	5.63	5.70	5.77	5.84	5.91	5.98	6.05	6.11	6.18	6.25	6.31	6.38	6.44	6.50	6.56	6.61	6.66
67	5.45	5.52	5.59	5.67	5.74	5.81	5.89	5.96	6.04	6.11	6.19	6.26	6.34	6.41	6.48	6.54	6.61	6.67	6.73	6.79	6.85
68	5.56	5.63	5.71	5.78	5.86	5.94	6.02	6.10	6.18	6.26	6.34	6.42	6.50	6.58	6.65	6.72	6.79	6.86	6.93	6.99	7.05
69	5.66	5.74	5.82	5.91	5.99	6.08	6.16	6.25	6.34	6.42	6.51	6.59	6.68	6.76	6.84	6.92	6.99	7.06	7.13	7.20	7.26
70	5.78	5.86	5.95	6.04	6.13	6.22	6.31	6.41	6.50	6.59	6.68	6.77	6.86	6.95	7.04	7.12	7.20	7.28	7.35	7.42	7.49
71	5.90	5.99	6.09	6.18	6.28	6.38	6.48	6.58	6.68	6.77	6.87	6.97	7.07	7.16	7.25	7.34	7.43	7.51	7.59	7.67	7.74
72	6.04	6.13	6.23	6.34	6.44	6.54	6.65	6.76	6.86	6.97	7.08	7.18	7.29	7.39	7.49	7.58	7.67	7.76	7.85	7.93	8.00
73	6.18	6.28	6.39	6.50	6.61	6.72	6.84	6.95	7.07	7.18	7.30	7.41	7.52	7.63	7.74	7.84	7.94	8.03	8.12	8.21	8.29
74	6.33	6.44	6.56	6.67	6.79	6.92	7.04	7.16	7.29	7.41	7.53	7.66	7.78	7.89	8.01	8.12	8.22	8.32	8.42	8.51	8.60
75	6.42	6.54	6.67	6.79	6.92	7.05	7.18	7.31	7.45	7.58	7.71	7.84	7.97	8.09	8.21	8.33	8.44	8.55	8.65	8.75	8.83

## 2H. Increasing Payment – With Cash Refund: 50% to Survivor

### Joint Annuitant's Age

Primary Annuitant's Age	Years Younger										Same Age	Years Older									
	10	9	8	7	6	5	4	3	2	1		1	2	3	4	5	6	7	8	9	10
45	\$4.67	\$4.69	\$4.71	\$4.73	\$4.75	\$4.78	\$4.80	\$4.83	\$4.86	\$4.88	\$4.91	\$4.94	\$4.98	\$5.01	\$5.04	\$5.08	\$5.11	\$5.15	\$5.19	\$5.23	\$5.27
46	4.72	4.74	4.76	4.78	4.81	4.83	4.86	4.89	4.92	4.94	4.98	5.01	5.04	5.07	5.11	5.15	5.19	5.23	5.27	5.31	5.35
47	4.77	4.79	4.81	4.84	4.86	4.89	4.92	4.95	4.98	5.01	5.04	5.07	5.11	5.14	5.18	5.22	5.26	5.30	5.35	5.39	5.44
48	4.82	4.84	4.87	4.89	4.92	4.95	4.98	5.01	5.04	5.07	5.11	5.14	5.18	5.22	5.26	5.30	5.34	5.38	5.43	5.48	5.53
49	4.87	4.90	4.93	4.95	4.98	5.01	5.04	5.07	5.11	5.14	5.18	5.22	5.25	5.29	5.34	5.38	5.42	5.47	5.52	5.57	5.62
50	4.88	4.91	4.94	4.97	5.00	5.03	5.06	5.09	5.13	5.16	5.20	5.24	5.28	5.32	5.36	5.41	5.46	5.50	5.56	5.61	5.67
51	4.94	4.97	5.00	5.03	5.06	5.10	5.13	5.16	5.20	5.24	5.28	5.32	5.36	5.40	5.45	5.50	5.55	5.60	5.65	5.71	5.77
52	5.01	5.04	5.07	5.10	5.13	5.17	5.20	5.24	5.28	5.32	5.36	5.40	5.45	5.49	5.54	5.59	5.65	5.70	5.76	5.82	5.88
53	5.08	5.11	5.14	5.17	5.21	5.24	5.28	5.32	5.36	5.40	5.45	5.49	5.54	5.59	5.64	5.69	5.75	5.81	5.87	5.93	6.00
54	5.15	5.18	5.21	5.25	5.29	5.32	5.36	5.40	5.45	5.49	5.54	5.59	5.64	5.69	5.74	5.80	5.86	5.92	5.99	6.06	6.13
55	5.17	5.20	5.24	5.28	5.31	5.35	5.40	5.44	5.48	5.53	5.58	5.63	5.68	5.74	5.79	5.85	5.92	5.98	6.05	6.12	6.20
56	5.25	5.28	5.32	5.36	5.40	5.44	5.49	5.53	5.58	5.63	5.68	5.73	5.79	5.85	5.91	5.97	6.04	6.11	6.18	6.26	6.34
57	5.33	5.37	5.41	5.45	5.49	5.54	5.58	5.63	5.68	5.73	5.79	5.85	5.91	5.97	6.03	6.10	6.17	6.25	6.32	6.40	6.49
58	5.42	5.46	5.50	5.54	5.59	5.64	5.68	5.74	5.79	5.85	5.90	5.96	6.03	6.10	6.17	6.24	6.31	6.39	6.47	6.56	6.65
59	5.51	5.55	5.60	5.64	5.69	5.74	5.79	5.85	5.91	5.96	6.03	6.09	6.16	6.23	6.31	6.38	6.46	6.55	6.63	6.72	6.82
60	5.55	5.59	5.64	5.69	5.74	5.79	5.85	5.91	5.97	6.03	6.10	6.16	6.24	6.31	6.39	6.47	6.56	6.64	6.74	6.83	6.93
61	5.65	5.70	5.75	5.80	5.86	5.91	5.97	6.03	6.10	6.16	6.24	6.31	6.39	6.47	6.55	6.64	6.73	6.82	6.92	7.02	7.12
62	5.76	5.81	5.87	5.92	5.98	6.04	6.10	6.17	6.24	6.31	6.38	6.46	6.55	6.63	6.72	6.81	6.91	7.01	7.11	7.22	7.33
63	5.88	5.93	5.99	6.05	6.11	6.17	6.24	6.31	6.39	6.46	6.54	6.63	6.72	6.81	6.90	7.00	7.10	7.21	7.32	7.43	7.55
64	6.00	6.06	6.12	6.18	6.25	6.32	6.39	6.47	6.55	6.63	6.71	6.80	6.90	7.00	7.10	7.20	7.31	7.43	7.54	7.66	7.79
65	6.00	6.07	6.13	6.19	6.26	6.34	6.41	6.49	6.58	6.66	6.75	6.85	6.95	7.05	7.15	7.26	7.38	7.50	7.62	7.75	7.88
66	6.14	6.21	6.27	6.35	6.42	6.50	6.58	6.67	6.75	6.85	6.94	7.05	7.15	7.26	7.37	7.49	7.61	7.74	7.87	8.01	8.14
67	6.29	6.36	6.43	6.51	6.59	6.67	6.76	6.85	6.95	7.05	7.15	7.26	7.37	7.49	7.61	7.73	7.87	8.00	8.14	8.28	8.43
68	6.44	6.52	6.60	6.68	6.76	6.85	6.95	7.05	7.15	7.26	7.37	7.49	7.61	7.73	7.86	8.00	8.14	8.28	8.43	8.58	8.74
69	6.61	6.69	6.77	6.86	6.96	7.05	7.15	7.26	7.37	7.49	7.60	7.73	7.86	7.99	8.13	8.28	8.43	8.58	8.74	8.90	9.07
70	6.64	6.73	6.82	6.91	7.01	7.11	7.22	7.33	7.44	7.56	7.69	7.82	7.96	8.10	8.25	8.40	8.55	8.72	8.88	9.05	9.22
71	6.83	6.92	7.01	7.12	7.22	7.33	7.45	7.57	7.69	7.82	7.96	8.10	8.25	8.40	8.55	8.72	8.88	9.06	9.23	9.41	9.60
72	7.02	7.12	7.23	7.34	7.45	7.57	7.69	7.82	7.96	8.10	8.25	8.40	8.55	8.72	8.89	9.06	9.24	9.42	9.61	9.80	10.00
73	7.24	7.34	7.46	7.58	7.70	7.83	7.96	8.10	8.25	8.40	8.55	8.72	8.89	9.06	9.24	9.43	9.62	9.82	10.02	10.22	10.43
74	7.47	7.58	7.70	7.83	7.96	8.10	8.25	8.40	8.55	8.72	8.89	9.07	9.25	9.44	9.63	9.83	10.04	10.24	10.46	10.67	10.89
75	7.46	7.58	7.71	7.84	7.98	8.12	8.28	8.43	8.60	8.77	8.95	9.13	9.32	9.52	9.72	9.93	10.14	10.35	10.57	10.79	11.01

**TABLE 3**

# Single Life Annuities

## Interest Adjustment Factors

**Instructions:** Find your age (at the expected annuity purchase date) in the left-hand column headed “Annuitant’s Age Bracket.” Find the column that describes the annuity option you

are estimating. Then find the number where the row for your age intersects the column for your annuity option. Enter that number on the worksheet on line (12).

Annuitant’s Age Bracket	Level Payment			Increasing Payment		
	No Added Features	Cash Refund	10-Year Certain	No Added Features	Cash Refund	10-Year Certain
45-54	0.101	0.101	0.102	0.130	0.130	0.129
55-59	0.092	0.092	0.091	0.114	0.114	0.112
60-64	0.083	0.083	0.083	0.100	0.100	0.099
65-75	0.075	0.075	0.074	0.088	0.088	0.087

**TABLE 4**

# Joint Life Annuities

## Interest Adjustment Factors

**Instructions:** Select Table 4A or 4B depending on your choice of level or increasing payments. Find your age (at the expected annuity purchase date) in the left-hand column headed “Primary Annuitant’s Age Bracket.” Find the column that describes the annuity option you are estimating and the **age difference** between you and your joint annuitant. Note: This table applies whether you elect a joint life annuity with or without a cash

refund. (If your joint annuitant is more than 10 years younger than you, ask the TSP Service Office, your agency personnel office, or your service TSP representative for information from the *Thrift Savings Plan Comprehensive Tables of Annuity Rates*, February 2001 edition.) Find the number where the row for your age intersects the column for your annuity option. Enter that number on the worksheet on line (12).

### A. Level Payment

Primary Annuitant’s Age Bracket	100% to Survivor		50% to Survivor	
	Joint Annuitant’s Age		Joint Annuitant’s Age	
	10 Years Younger to 5 Years Older	More than 5 Years Older	10 Years Younger to 5 Years Older	More than 5 Years Older
45-54	0.111	0.106	0.105	0.095
55-59	0.103	0.095	0.094	0.083
60-64	0.097	0.086	0.086	0.075
65-75	0.087	0.077	0.077	0.065

### B. Increasing Payment

Primary Annuitant’s Age Bracket	100% to Survivor		50% to Survivor	
	Joint Annuitant’s Age		Joint Annuitant’s Age	
	10 Years Younger to 5 Years Older	More than 5 Years Older	10 Years Younger to 5 Years Older	More than 5 Years Older
45-54	0.147	0.136	0.133	0.117
55-59	0.131	0.116	0.117	0.101
60-64	0.117	0.103	0.104	0.089
65-75	0.102	0.091	0.091	0.077

