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THE BASE RETIREMENT PLAN

The California Institute of Technology Defined Contribution Retirement Plan (the “Plan”) is a Defined Contribution Plan. This plan is often referred to as the Base Retirement Plan. Under this plan benefits are provided through fixed-dollar annuities issued by the Teachers Insurance and Annuity Association (TIAA), variable annuities offered by TIAA’s companion organization, the College Retirement Equities Fund (CREF) and certain mutual funds offered under the Plan. TIAA is an insurance company founded in 1918 and incorporated under New York State Law. CREF is registered with the Securities and Exchange Commission as an open-end diversified investment company.

The Plan operates under Section 403(b) of the Internal Revenue Code and prior to January 1, 2010 used TIAA and CREF Retirement Annuity (RA) contracts and effective January 1, 2010 uses TIAA and CREF Retirement Choice (RC) contracts to provide benefits. The Administrator of the Plan is the Institute. The Plan year begins on January 1 and ends on December 31.

Eligibility

You are an Eligible Employee if you are in an employment category as stated below:

- Faculty. A person who holds an Institute appointment as a member of the faculty except those faculty members who are Research Fellows, Part-Time Lecturers, Visiting Associates, and Visitors.
- Key Staff Employee. A person who is regularly scheduled to work 20 or more hours per week in any one of the following two categories:

- (1) A campus employee promoted to or hired in a classification of:

Member of the Professional Staff;
 Librarian;
 Associate Librarian;
 Member of Beckman Institute.

Not applicable to JPL employees on and after March 17, 1997.

- (2) On or after the following effective dates

JPL	March 17, 1997*
Campus	First pay period in October 1999**

A Benefit-Based employee (but not a Post Doctoral Scholar) who is receiving Regular Salary (see definition on page 7.5) equal to at least the “Minimum Compensation Level”. The Minimum Compensation Level as indexed is \$103,948. as of October 1, 2014.

* If you were an Eligible Employee at JPL, and were considered a Key Staff Employee on March 16, 1997 according to the Plan’s terms in effect at that time, you are a Key Staff Employee (even though in 1997 and later years your Regular Salary is less than the Minimum Compensation Level).

If any JPL employee (other than as described in the preceding paragraph) receives Regular Salary that falls below the applicable Minimum Compensation Level for the year, that employee will participate in the Plan as a Staff Employee effective with the first of the month coincident with or following the salary change until such time as the employee again receives Regular Salary equal to the applicable Minimum Compensation Level.

** If you were an Eligible Employee on campus on April 30, 2002 and

- (a) were considered a Key Staff Employee in accordance with (1) on page 7.1, and
 - (b) Regular Salary is less than the Minimum Compensation Level on that date,
- you are a Key Staff Employee even though in 2002 and later years your Regular Salary is less than the Minimum Compensation Level.

If any campus employee (other than as described in the preceding paragraph) receives Regular Salary that falls below the applicable Minimum Compensation Level for the year and does not meet the definition in (2) on page 7.1, such employee will participate in the Plan as a Staff Employee until such time as the employee again receives Regular Salary equal to the applicable Minimum Compensation Level.

- **Staff Employee.** A person who meets the definition on page 2.3, is not a Faculty or Key Staff Employee, and is not covered by any other Institute-funded retirement plan. In addition, effective July 1, 2005, a Staff Employee will include a Post Doctoral Scholar (including senior Post Doctoral Scholars) who has completed two (2) years of Eligibility Service except where noted otherwise.

An Eligible Employee does not include (i) any leased employee deemed to be an employee of the Institute as provided in Internal Revenue Code (Code) section 414(n) or (o), (ii) any individual who has not been considered to be, nor treated as, a common law employee of the Institute, including

individuals classified by the Institute as independent contractors, and (iii) effective September 1, 1999, any employee whose employment is incidental to being a student.

Participation

Commencement Of Participation

Eligible Employees will begin participation in this Plan as follows:

- **Faculty.**

Except as provided below, participation in this Plan is mandatory for an Eligible Employee who is a Faculty member. Participation begins on the first working day of the month coincident with or next following the date the employee meets the eligibility conditions.

A Faculty member described below may participate on an optional basis at any time at which he or she is not considered a “highly compensated employee” under the Code and is either:

- (1) A Faculty member who is neither a citizen of the United States nor a permanent resident alien; or
- (2) Visiting Professorial Faculty.

An election to participate on an optional basis is irrevocable for the individual’s entire period of service with the Institute whether in this classification or under any other Eligible Employee classification under the Plan. Participation on an optional basis begins the first of the month coincident with or next following the date the individual returns a completed Plan enrollment application.

If a faculty member described in (1) or (2) on page 7.2 becomes a “highly compensated employee” and was not participating under the Plan on an optional basis, he or she will participate on a mandatory basis beginning on the first day of the Plan year for which the employee is determined to be a “highly compensated employee.” An employee is a highly compensated employee for 2014 if he or she earned more than \$115,000 in 2013 and is among the top 20% paid. The \$115,000 may be adjusted annually to reflect cost of living changes in \$5,000 increments. The amount applicable for 2014 earnings is \$115,000 which will be used to determine if an employee is highly compensated for 2015.

- Key Staff Employees

New Hires. Participation of an Eligible Employee who is a Key Staff Employee is mandatory and will begin on the first working day of the month coincident with or next following the date of hire as a Key Staff Employee.

Promotions or Attainment of Minimum Compensation Level. If a Staff Employee who is not a Postdoctoral Scholar is promoted to Key Staff Employee status or reaches the Minimum Compensation Level, his or her participation will begin as of the first of the month coincident with or next following the effective date of promotion or reaching the Minimum Compensation Level.

However, if a Staff Employee under age 55 is promoted to a Key Staff classification or level, or reaches the Minimum Compensation Level and such employee is considered a “nonhighly compensated employee” under the Code, he or she may elect to remain in the Staff Employee eligible class of employees for purposes of the Plan. When initially promoted to key staff or reaching the MCL, the election to remain in the Staff Employee eligible class must be made within 15 business days of their notification of the change. Any election to remain in the Staff Employee eligible class

remains in effect even if the employee has a salary increase taking him/her above the HCE threshold, until the first of the month coincident with or next following the employee’s 55th birthday, on which date the employee will participate in the Plan as a member of the Key Staff Employee eligible class provided he/she still satisfies the definition of Key Staff Employee.

- Staff Employees.

Effective January 1, 2001, participation in this Plan is mandatory for an eligible Staff Employee (excluding Postdoctoral Scholars as described below) who has completed six months of Eligibility Service. Participation for someone in this class will begin the first of the month coincident with or next following the later of (i) the date the Staff Employee completes six months of Eligibility Service or (ii) the date he or she becomes a member of the Staff Employee eligible class.

Effective July 1, 2005, participation in this plan is mandatory for an eligible Post Doctoral Scholar, who has completed two (2) years of Eligibility Service. Participation will begin on the first of the month coincident with or next following the later of (i) the date the Postdoctoral Scholar completes twenty-four months of Eligibility Service or (ii) the date he or she becomes a Postdoctoral Scholar.

Your Eligibility Service is a period of service with the Institute during which you complete 1 hour of service. All time periods are combined, beginning with your date of employment and ending on your “severance from service date” (and beginning on any following date of reemployment and ending on your next “severance from service date”). Fractional periods of a year are expressed in terms of days. Thirty days are considered to be one month in the case of aggregation of fractional months.

Your “severance from service date” is:

- (A) the date you retire, quit, die, or are discharged. However, if you are reemployed within 12 months of such date, the period of absence will be treated as service; or
- (B) the first 12-month anniversary of the date you are first absent from service for any other reason (other than a paid leave or a disability leave), or the date within such 12-month period that you quit, are discharged, die, or retire. However, if you are reemployed within 12 months of the first day of absence, the period of absence will be treated as service. In determining Eligibility Service, paid leaves or disability leaves are treated as service. Eligibility Service will also include all periods after your initial date of employment during which you worked in a student or postdoctoral scholar position whether or not your wages were subject to FICA taxes.

The Institute will notify you when you have completed the requirements necessary to participate in the Plan. All determinations about eligibility and participation will be made by the Institute. The Institute will base its determinations on its records and the official Plan document on file with the Plan Administrator. Each Eligible Employee must complete their enrollment in the Plan.

Your participation in the Plan will continue until the earlier of the date you are no longer an Eligible Employee or the date the Plan is terminated.

Election Not To Participate

Within 30 days of first becoming eligible to participate in the Plan, you may make a written election not to participate. However, once made, your election cannot be revoked and applies to your entire service with the Institute.

Participation Upon Reemployment

If you are an Eligible Employee who has met the eligibility requirements for participation under the

Plan, you will participate immediately upon reemployment as an Eligible Employee, unless you had previously irrevocably elected not to participate under the Plan. If you have begun income payments prior to reemployment you may be required to stop payments depending on the type of income you selected. Contact TIAA-CREF for information regarding your retirement account.

Participation During An Approved Leave Of Absence

During a paid leave of absence, the Institute’s contributions on your behalf and your contributions will continue, based on your rate of pay, the Minimum Compensation Level, and the Social Security Wage Base in effect at the time your leave begins. See the following paragraphs regarding leaves of absence for qualified military service or disability.

During an unpaid leave of absence granted for any reason other than qualified military service or disability both Institute and Participant Plan Contributions will stop.

Participation In The Event Of Military Leave

The Institute (Caltech/JPL) supports calls to military training and active duty and complies with the Uniformed Services Employment and Reemployment Rights Act (USERRA) of 1994. Eligible employees may qualify for paid leave, unpaid leave, or a combination of paid and unpaid leave, continuation of benefits and reinstatement. Effective January 1, 2009, during a period of qualified military service, the Institute will continue making Institute contributions, based on your rate of pay in effect on the last day worked and taking into account the Minimum Compensation Level and the Social Security Taxable Wage Base on that date. Employees also have the opportunity to make mandatory and/or voluntary contributions during an unpaid military leave. For a complete description of the Institute’s policies for military leaves, please contact the Benefits Office for a copy of the policy.

Participation In The Event Of Disability

If you become Disabled (as defined by the Institute), the Institute will continue to make contributions on your behalf while you are disabled until the end of your sixth month of leave or when your paid leave status ends, whichever is later.

Contributions for Faculty and Key Staff Employees will be based on the Regular Salary you were receiving and the Social Security Taxable Wage Base in effect at the time you became disabled. Contributions for Staff Employees will be based on the rate of pay you were receiving at the time you became disabled.

Plan Contributions

Beginning January 1, 2010 when you begin participation in the Plan, contributions will be made to a Retirement Choice contract with TIAA-CREF. The contributions are based on a percentage of your pay and a contribution schedule. If you participate in the Plan for only a part of a year, your allocation will be based on the portion of salary applicable to the period in which you participate. Plan contributions by you are made on a pre-tax (salary reduction) basis.

For Faculty and Key Staff Employees:

Institute Contributions

Before age 55: The Institute will contribute 8.3% times your annual Regular Salary up to the Social Security taxable wage base, plus 14% of your annual Regular Salary above the Social Security taxable wage base, \$117,000 for 2014.

After age 55: Beginning with the first of the month coincident with or next following your 55th birthday, the Institute will contribute 12.3% of your annual Regular Salary up to the Social Security taxable wage base, plus 18%

of your salary above the Social Security taxable wage base, \$117,000 for 2014.

Regular Salary

For Faculty, "Regular Salary" means the salary stated in the academic year contract. For Key Staff Employees, "Regular Salary" means salary (including a regular salary increase which is paid in a lump sum) exclusive of benefits, overtime, bonuses, commissions, extended work week compensation, per diems, shift differential, field rate bonuses, flight bonuses, offset service pay, and similar pay. Regular Salary includes any differential wage payments made during a period of qualified military service. Regular Salary excludes all compensation paid after severance of employment, except as permitted under Code Section 415.

Regular Salary includes, in the case of a Faculty member or Key Staff Eligible Employee, the lump sum payment, if any, paid under the Institute's Early Retirement Option. In addition, for terminating or retiring Key Staff Employees, Regular Salary shall include any amounts paid under a separation and/or severance program (to the extent such amounts are paid on or before the employee's date of termination) and any unused vacation pay.

In no event will the Regular Salary taken into account under the Plan exceed the limits of Code Section 401(a)(17). (The limit for 2014 is \$260,000. This amount is adjusted under the Code to reflect cost of living increases.)

For the purposes of determining whether or not Regular Salary exceeds the Minimum Compensation Level, a participant's hourly rate of pay (a regular salary increase which is paid in a lump sum is excluded when determining a participant's hourly rate) is compared to the equivalent Minimum Compensation Level hourly rate. The equivalent Minimum Compensation Level hourly rate is determined as follows:

- The annual Minimum Compensation Level is converted to a full-time weekly salary rate and truncated to whole dollars, and
- This weekly salary rate is converted to an hourly rate assuming a full-time workweek.

Faculty and Key Staff Participant Contributions

You pay 5.7% of your annual Regular Salary, which is in excess of the Social Security taxable wage base.

Participant Contributions will be divided evenly over the year and will not be limited to the period you are not paying Social Security taxes.

However, Participant Contributions will not be required for the following amounts:

- A Regular Salary increase which is paid in a lump sum instead of being paid throughout the year if before the increase, your Regular Salary was not in excess of the Social Security taxable wage base and you were not already making Participant Contributions; and
- Lump sum payments made under the Institute’s Early Retirement Option (effective January 1, 2005 the ERO benefit is discontinued for executive and senior management).

The Social Security taxable wage base means the contribution base on which the Old-age, Survivors, and Disability Insurance (OASDI) portion of your Social Security taxes are determined. For 2014, the Social Security taxable wage base is \$117,000.

Adjustment to contribution rates if Social Security tax rates increase: The Social Security tax rate for old age benefits is considered to be 5.7%. This rate has been in effect for many years and may be adjusted. If this Social Security tax rate changes, the contribution rates described above will be adjusted as follows:

- Before age 55, the 8.3% Institute contribution rate on annual Regular Salary up to the Social

Security taxable wage base will equal 14% minus the new Social Security tax rate.

- After age 55, the 12.3% Institute contribution rate on annual Regular Salary up to the Social Security taxable wage base will equal 18% minus the new Social Security tax rate.
- Employee contribution percentages will change to equal the new Social Security tax rate.

For Staff Employees and Postdoctoral Scholars

Institute Contributions

Completed Years of Service	Plan Contribution Percentage*
Six months (two years for Postdoctoral Scholars**) but less than ten years	5.0%
Ten or more, but under age 50	8.0%
Ten or more, and age 50 or older	12.0%***

* Plan Contribution Percentages are effective the first of the month after an Eligible Employee’s completion of full Years of Service as described above.

** Fellowship stipends distributed by Caltech are not considered “salary” eligible for Institute contributions.

*** An Eligible Employee must be at least age 50 and have 10 or more Years of Service with the Institute. The stated Plan Contribution Percentage is effective the first of the month following an Eligible Employee’s 50th birthday or completion of 10 Years of Service, whichever is later.

Staff Retirement Plan Earnings

Effective January 1, 2002, “Retirement Plan Earnings” means W-2 wages for the period plus pre-tax contributions made to an eligible plan of deferred compensation (such as pre-tax contributions for medical/dental benefits, TDA contributions, etc.). In the event a participant is receiving Short Term or Long Term Disability benefits, Institute contributions are based on the Participant’s rate of pay in effect at the time of Disability. During a period of qualified military service, Institute contributions are based on the

Participant's rate of pay in effect on the last day worked. Retirement Plan Earnings excludes all compensation paid after severance of employment, except as permitted under Code Section 415.

Determining Years Of Service For Purposes Of Institute Contributions For Staff Employees and Postdoctoral Scholars

Eligibility Service is used to determine a Staff Employee's initial eligibility to participate in the Plan and is defined on page 7.3.

A Staff Employee's Years of Service are used to determine Institute contributions to the Plan. Years of Service are credited for the following periods of employment with the Institute in an Eligible Employee classification. (See page 7.1 for a definition of Eligible Employee.)

Years of Service include the following periods of service as an Eligible Employee:

- Up to six months of Eligibility Service completed before the Staff Employee became a Participant. However, if a Staff Employee becomes eligible for the Plan on or after July 1, 2005 and had previous service as a Postdoctoral Scholar, service as a Postdoctoral Scholar will be included up to a maximum of two years.
- Up to two years of Eligibility Service completed before a Postdoctoral Scholar became a Participant. However, for those Postdoctoral Scholars who become participants on July 1, 2005, Years of Service shall be defined by the Plan as of July 1, 2005 without regard to the two year limitation.
- The period beginning with the date the Staff Employee or Postdoctoral Scholar becomes a Participant in the Plan and ending on the Severance from Service Date. After July 1, 2005, Years of Service will also include all periods after the eligible employee's initial date of employment during which he/she

worked in a postdoctoral scholar position whether or not wages were subject to FICA taxes; and

- Any subsequent period beginning on a reemployment date and ending on a Severance from Service Date.

A Year of Service is credited for each 12-month period of service described above. Fractional periods of service are expressed in terms of days. Thirty days are considered to be one month in the case of aggregation of fractional months.

The "severance from service date" for this purpose is:

- the date the Staff Employee retires, quits, dies or is discharged; or
- the first 12-month anniversary of the date he or she is first absent from service for any other reason (other than a paid leave or a disability leave), or the date within such 12-month period that he or she quits, is discharged, dies or retires

In determining Years of Service, paid leaves or disability leaves lasting longer than 12 months are treated as service.

Limitations On Contributions

The total amount of contributions made on your behalf for any year will not exceed the limits imposed by Sections 402, 403, and 415 of the Internal Revenue Code. These limits may be adjusted from time to time. For more information on these limits, contact TIAA-CREF.

When Contributions Are Made

Contributions will be forwarded to the funding vehicles at least monthly.

Vesting Of Contributions

You are fully and immediately vested in the benefits arising from contributions made to your accounts under RC and RA annuity contracts. Such amounts are nonforfeitable.

Investment Options

Effective January 1, 2010, a wider range of investment options are available to help you achieve your retirement savings goals. You can simplify your decision-making process by choosing one of TIAA-CREF's Lifecycle Funds – model portfolios targeted to your anticipated year of retirement which automatically rebalance to become more conservative as you move closer to that date. Or you can build your own portfolio with investment choices in the essential asset classes you need: equities (stocks), fixed income (bonds), guaranteed, real estate and money market.

It is intended that the Plan qualify as a participant directed account plan under ERISA Section 404(c). In selecting funds for the main investment options, Caltech's objective is to offer competitive choices and top-quality funds to Caltech employees. Caltech will periodically review the main investment menu to ensure that the available funds continue to help employees reach their retirement goals. The Institute's current selection of investment funds is not intended to limit future additions or deletions. You will be notified of any additions or deletions. See next page for the Investment Menu as of February 6, 2014. For the latest Investment Menu go to www.tiaa-cref.org/caltech click on Plan and Investments tab, then click on plan and investment choices.

Investment Menu					
LOWER RISK		MEDIUM RISK		HIGHER RISK	
GUARANTEED	MONEY MARKET	FIXED INCOME	REAL ESTATE	MULTI-ASSET	EQUITIES
ASSET CLASS	ACCOUNT/FUND NAME				
Guaranteed	TIAA Traditional Account				
Money Market	Vanguard Prime Money Market Fund Investor				
Fixed Income	CREF Bond Market Account CREF Inflation-Linked Bond Account PIMCO Real Return Inst PIMCO Total Return Inst		Vanguard Short-Term Bond Index Vanguard Total Bond Market Index Inst Templeton Global Bond Adv		
Real Estate	TIAA Real Estate Account				
Multi-Asset	TIAA-CREF Lifecycle Fund 2055 TIAA-CREF Lifecycle Fund 2050 TIAA-CREF Lifecycle Fund 2045 TIAA-CREF Lifecycle Fund 2040 TIAA-CREF Lifecycle Fund 2035 TIAA-CREF Lifecycle Fund 2030 TIAA-CREF Lifecycle Fund 2025		TIAA-CREF Lifecycle Fund 2020 TIAA-CREF Lifecycle Fund 2015 TIAA-CREF Lifecycle Fund 2010 TIAA-CREF Lifecycle Retire Inc Instl CREF Social Choice Account		
Equities	CREF Equity Index Account CREF Growth Account CREF Global Equities Account CREF Stock Account Jennison Growth Fund Class Z TIAA-CREF Social Choice Eq Instl Vanguard Instl Index Admiral Munder Veracity Small Cap Value Fund Jennison Mid Cap Growth Q		TIAA-CREF Mid-Cap Value Instl Wells Fargo Advantage Emerging Growth I Vanguard Extended Market Idx Instl American Funds New Perspective R6 Dodge & Cox International Stock Dodge & Cox Stock Fund Matthews Asia Growth Fund Instl Oppenheimer Global Fund I Vanguard Total Intl Stock Index		

Allocating Contributions Among Available Investment Options

You may allocate contributions among the TIAA Traditional Annuity, TIAA Real Estate, the CREF Accounts or any available mutual funds in any whole-number percentage. You specify the percentage of contributions to be directed to each investment option when you begin participation and enroll online in the Retirement Choice contracts at www.tiaa-cref.org/caltech.

One-Stop Investing: Life Cycle Funds

If you're uncertain about selecting specific investments for your own portfolio, you can direct your contributions to a TIAA-CREF Lifecycle Fund. Lifecycle funds are based on the idea that most retirement investors share a common characteristic: the longer they have to save before retirement, the more aggressively they can afford to invest in order to capitalize on the potential for growth. Conversely, as the actual retirement date gets closer, the investment strategy becomes more conservative to provide more stability and less potential for dramatic changes in the retirement account balance.

Each Lifecycle Fund has a different "target date" – the year that the investor expects to retire. The funds combine different types of assets with underlying funds that invest in various stocks, bonds, and money market instruments – starting off with an asset allocation generally considered appropriate for investors at a particular stage of retirement planning. The objective of lifecycle funds is to achieve the highest possible returns while minimizing potential risks. (Please keep in mind that there is no guarantee that this objective will be met.) Over time, the funds are readjusted by professional investment managers to maintain an appropriate balance of various assets as you move through your career and into retirement.

Build Your Own Portfolio

Alternatively, you can choose to create your own portfolio. Please refer to the chart on page 7.9 for a list of all the funds available to you under the Plan.

The menu features a wide range of funds in different asset classes from a variety of companies – with funds representing varying degrees of investment risk. Risk is tied directly to rewards – the more risk you're willing to take, the greater the potential for gains, as well as for losses.

Using Annuities in Your Retirement Planning

The Plan's investment options include several annuity accounts that are available through contracts issued by TIAA or CREF. Unlike mutual funds, annuities offer a variety of ways to receive income in retirement, including lifetime income and cash withdrawals. To learn more about how you can take income in retirement, please visit www.tiaa-cref.org/caltech, click on "Plans and Investments", choose the "Caltech Institute Base Plan" on the right side of the page.

How Your Contributions are Invested if You Do Not Provide Investment Direction

The Plan's default investment option for a Participant who does not make an affirmative investment election is the lifecycle fund that corresponds to an assumed retirement date falling closest to the Participant's 65th birthday.

Changing How Your Future Contributions are Invested

You may change your allocation of future contributions after participation begins by modifying your investment elections online, by calling TIAA-CREF's Automated Telephone Service (ATS) or TIAA-CREF's Telephone Counseling Center. Please refer to the Tools and Resources section for more detail on alternative contact methods.

Contributions To TIAA and CREF Retirement Choice Contracts

TIAA: Contributions to a TIAA Traditional Annuity are used to buy a contractual or guaranteed amount of future retirement benefits for you. Once purchased, the guaranteed benefit of principal plus interest cannot be decreased, but it can be increased by dividends. Once you begin

receiving annuity income, your accumulation will provide an income consisting of the contractual, guaranteed amount plus dividends that are declared each year and which are not guaranteed for the future. Dividends may increase or decrease, but changes in dividends are usually gradual.

TIAA Real Estate: The TIAA Real Estate fund seeks favorable long-term returns primarily through rental income and appreciation of real estate investments owned by the account. The account also invests in publicly traded securities and other investments that are easily converted to cash to make redemptions, purchase or improve properties or cover other expenses.

CREF: You have the flexibility to accumulate retirement benefits in any of the CREF variable annuity accounts approved for use under the Plan. Each account has its own investment objective and portfolio of securities. Contributions to a CREF account are used to buy Accumulation Units, or shares of participation in an underlying investment portfolio. The value of the Accumulation Units changes each business day. For more information on the CREF accounts, you should refer to the CREF prospectus.

For a recorded message of the current interest rate for contributions to TIAA Traditional or the latest Accumulation Unit Values for the CREF Accounts and the seven-day yield for the CREF Money Market Account, call 1-800-842-2776 or access the TIAA-CREF Web site on the Internet at <http://www.tiaa-cref.org>. The recording is updated each business day.

Amounts contributed prior to 2010 remain in your Retirement Annuity (RA) contracts until you elect to transfer funds to any of the new investment funds.

Objective Guidance, Planning and Advice

TIAA-CREF, as the Plan's single administrative services provider, offers a number of services to help you as you evaluate your investment options. For example, if you want help developing your own portfolio, TIAA-CREF can provide you with

examples of model portfolios you can use as a guideline. All you need to do is determine what kind of investor you are – what your goals are, how long you have to invest, and how you feel about taking investment risk. You can answer the TIAA-CREF Asset Allocator questionnaire online to identify your risk tolerance profile and view a sample portfolio that matches your profile.

In addition, TIAA-CREF's noncommissioned consultants are committed to helping you make the best decisions for your financial future. TIAA-CREF consultants are available to help you understand your investment choices and make your selections. You can also choose to receive personalized investment advice that provides objective fund recommendations for your retirement portfolio based on your goal and investment time horizon, and tolerance for risk. Please refer to the Tools and Resources section for information on how to sign up for an individual appointment.

Transferring Accumulations In the Plan

Accumulations may be transferred among the CREF Accounts, the TIAA Real Estate Account and the available mutual funds. Accumulations may be transferred to the TIAA Traditional Annuity. Complete transfers may be made at any time. Partial transfers may be made from any of the available investment options to the TIAA Traditional Annuity or among any of the available investment options at any time. Transfers from CREF Accounts, TIAA Real Estate Account and the available mutual funds must be at least \$1,000 each time (except for systematic transfers which must be at least \$100 each time), or your entire accumulation, whichever is less. Transfers made as a percentage must also meet the dollar minimums. Transfers from TIAA Real Estate Account are limited to once per calendar quarter. TIAA-CREF can place limits on transfers in the future. Transfers may be made until the date annuity income begins. There is no charge for transferring accumulations among the available investment options.

TIAA Traditional accumulations in RC contracts may be transferred to any of the CREF Accounts, TIAA Real Estate or any of the available mutual funds in substantially equal monthly amounts over a period of 84 months (7 years). Such transfers are subject to the terms of that contract. The minimum transfer from TIAA to a CREF account is \$10,000 (or the entire accumulation if it totals less than \$10,000).

Alternatively, if your total TIAA Traditional accumulation is \$2,000 or less, you can transfer your entire TIAA accumulation in a single sum to any of the CREF Accounts.

Your RC contract stays open as long as you have an accumulation remaining in TIAA, in one of the CREF Accounts or any of the available mutual funds.

For contributions made prior to 2010 that continue to remain in the Retirement Annuity (RA) contract (until you elect to transfer funds to investment funds offered under your RC contract), slightly different transfer rules apply. Please refer to the chart on page 7.13, which compares the features of Retirement Annuity contracts (for contributions made prior to 2010) to those of Retirement Choice contracts (for contributions made after 2009).

You may complete fund transfers or change the investment of your ongoing contributions online, by phone, or in writing. Please see Tools And Resources for more detailed contact information. Transfers, as well as contribution allocation changes, will be effective as of the close of the New York Stock Exchange (usually 4:00 p.m. Eastern time) on the day the instructions are received by TIAA-CREF.

Information Regularly Furnished About Your Account

TIAA-CREF sends you a *Quarterly Retirement Portfolio Review*. This report shows the accumulation totals within each asset class, a summary of transactions made during the period, personalized rate of return which estimates your retirement portfolio's performance based on certain stated assumptions, TIAA Traditional interest credited, net investment gain and loss, and the number and value of CREF, TIAA Real Estate and mutual fund accumulation units, plus a hypothetical projection of monthly retirement income based on certain factors. You also may receive Premium Adjustment Notices. These notices summarize any adjustments made to your annuities and are sent at the time the adjustments are processed.

And once a year, you will receive the *TIAA-CREF Annual Report*. The Annual Report summarizes the year's activity, including details on TIAA, CREF and mutual fund investments, earnings, and investment performance.

Additional educational and retirement planning tools are available on the TIAA-CREF website.

Contract Ownership and Vesting

The Institute (as Plan sponsor) holds ownership of the TIAA-CREF Retirement Choice (RC) contracts for the exclusive benefit of Plan participants. Payments under the Plan are made directly from TIAA-CREF to Plan participants. Participants are 100% vested in their account under the Plan's vesting provisions. This means that Plan participants retain the right to the vested account balances under the Plan – 100% immediate vesting in accordance with Caltech's plan provisions.

Contract Requirements Summary

Contract: Retirement Annuity (For contributions made through December 31, 2009)	Contract: Retirement Choice (For contributions made beginning January 1, 2010)
<p>Guaranteed interest rate in TIAA Traditional accumulation state: 3%.</p> <p>The TIAA Traditional Annuity also offers the opportunity to receive additional amounts of interest plus the guaranteed rate. These additional amounts, when declared by the TIAA Board of Trustees, remain in effect for the "declaration year" that begins each March 1.</p>	<p>Guaranteed interest rate in TIAA Traditional accumulation state: Floats between 1% and 3% based on the five-year Constant Maturity Treasury Rate, less 125 basis points. The TIAA Traditional Annuity also offers the opportunity to receive additional amounts of interest plus the guaranteed rate. These additional amounts, when declared by the TIAA Board of Trustees, remain in effect for the "declaration year" that begins each March 1.</p>
<p>Lump-sum transfers</p> <p>TIAA Traditional -- Not available. Transfers may only be made in 10 annual installments through a Transfer payout Annuity (TPA) to any variable annuity accounts or mutual funds offered within the plan.</p> <p>CREF, TIAA Real Estate and Mutual Funds – Available</p>	<p>Lump-sum transfers</p> <p>TIAA Traditional – Not available. Transfers of all or a portion of accumulation may be made over 84 months (7 year) in monthly systematic payments. Systematic payments may be made to any variable annuity accounts or mutual funds offered within the plan.</p> <p>CREF, TIAA Real Estate and Mutual Funds – Available</p>
<p>Lump-sum withdrawals on Termination</p> <p>TIAA Traditional – Lump-sum withdrawals are not available. Withdrawals of the participant's TIAA Traditional accumulation can be made in 10 annual installments through a Transfer Payout Annuity (TPA) to any variable annuity accounts or mutual funds offered through TIAA-CREF within the plan or to approved alternate carriers within the plan.</p> <p>CREF, TIAA Real Estate and Mutual Funds – Available</p> <p>Other types of withdrawals include:</p> <ul style="list-style-type: none"> • Lifetime income (with 10-, 15-, and 20-year guaranteed periods) • Systematic withdrawals through variable annuities and mutual funds • Fixed-period payments • Interest-only option from TIAA Traditional (IPRO) • Retirement transition benefit (RTB) • Minimum Distribution Option (MDO) 	<p>Lump-sum withdrawals on Termination</p> <p>TIAA Traditional – Lump-sum withdrawals only available within 120 days of termination of employment with a 2.5% surrender charge. If after 120 days, full or partial withdrawals may be made over 84 months (7 years) in monthly systematic payments.</p> <p>CREF, TIAA Real Estate and Mutual Funds – Available</p> <p>Other types of withdrawals include:</p> <ul style="list-style-type: none"> • Lifetime income (with 10, 15 and 20-year guaranteed periods) • Systematic withdrawals through variable annuities and mutual funds • Distribution options similar to IPRO, RTB and MDO are available,
<p>Annuity Settlement Rates for TIAA Traditional</p> <p>Based on 2.5% guaranteed interest, and a fixed mortality table.</p>	<p>Annuity Settlement Rates for TIAA Traditional</p> <p>Based on 2% guaranteed interest and a mortality table that is updated each year.</p>
<p>Contract Ownership and Vesting</p> <p>Each participant "owns" their TIAA/CREF contracts. Participants are 100% vested in their accounts under the Plan's vesting provisions.</p>	<p>Contract Ownership and Vesting</p> <p>The Institute (as plan sponsor) "owns" the TIAA/CREF contracts. Participants are 100% vested in their account under the Plan's vesting provisions.</p>
<p>Institutional Transfers of plan assets</p> <p>Not available for TIAA Traditional, TIAA Real Estate and CREF annuity accounts within the RA contract.</p>	<p>Institutional Transfers of plan assets</p> <p>Available for all investment options except TIAA Traditional if the plan changes the plan's investment offerings (for instance, due to a fund's poor performance). TIAA Traditional will be transferred over an 84-month period.</p>

Death Benefits

Death Before Retirement Benefits Begin

If you die before beginning retirement benefits, the full current value of your accounts is payable as a death benefit. Your entire interest must normally be paid out within five years after your death. Calendar year 2009 will not be counted in the five year period, so if the five years would otherwise include 2009, the period is extended by one year. Under a special rule, death benefits may be payable over the life or life expectancy of a designated Beneficiary if the distribution of benefits begins not later than one year from the date of your death. If the designated Beneficiary is your spouse, the commencement of benefits may be postponed until you would have attained age 70 ½ had you continued to live.

Federal tax law puts limitations on when and how beneficiaries receive their death benefits. TIAA-CREF will notify your Beneficiary of the applicable requirements at the time he or she applies for benefits.

You should review your Beneficiary designation periodically to make sure that the person you want to receive the benefits is properly designated. You may change your Beneficiary by completing the "Designation of Beneficiary" form available from TIAA-CREF. You may also change your beneficiary designation on the internet by using TIAA-CREF's secured web site at www.tiaa-cref.org. If you die without having named a Beneficiary, your spouse will automatically receive half of your accumulation. Your estate will receive the other half. If there is no spouse, your estate receives the entire accumulation.

Death Benefit Distribution Options

You may choose one or more of the options listed in your annuity contracts for payment of the death benefit, or you may leave the choice to your Beneficiary. The payment options include:

- Income for the lifetime of the Beneficiary with payments stopping at his or her death.

- Income for the lifetime of the Beneficiary, with a minimum guaranteed period of payments of either 10, 15 or 20 years, as selected.
- Income for a fixed period of at least two but not more than 30 years, as elected, but not longer than the life expectancy of the Beneficiary. (For RA contracts only)
- A single sum payment. A single sum must be paid if your Beneficiary is your estate, a corporation, association or other entity that is not a natural person.
- A minimum distribution option for beneficiaries required to begin retirement benefits under federal law. This option pays the required federal minimum distribution each year. A similar option for receiving minimum distributions is available for RC contracts.

Both Spouse and non-spouse Beneficiaries have certain direct rollover rights that may apply to single sum payments or payments over periods of less than 10 years.

Death After Distributions Begin

If you die after distributions begin, your remaining interest will be paid at least as rapidly as under the method of distribution used before your death.

In-Service Withdrawals

You may elect an in-service distribution if you are at least age 59 ½ and you are or become a "Non-Benefit-Based Employee" provided it is permitted under and subject to the provisions of the relevant funding vehicle and the distribution is not prohibited under the Internal Revenue Code.

Withdrawals from your accounts are not available before termination of employment with the Institute or while you are on a leave of absence or on disability leave

of absence.. If you reached age 70-1/2 before 2000, you must begin receiving distributions by your Required Beginning Date. (See page 7.16.)

When Annuity Income Payments Can Begin

Although income usually begins on the normal retirement date, you may begin to receive income at any time following termination of employment, which may be either earlier or later than the normal retirement date. You may not withdraw any funds from your account while you are still employed by the Institute, including periods while you are on leave of absence or on disability leave of absence. See above for an exception to in-service distributions if you are at least age 59 ½ and are no longer a Benefits-Based Employee.

The beginning date of your payments is subject to federal law that sets a date by which payments must begin (see “Required Benefit Beginning Date” on page 7.16).

Normal Retirement Under The Plan

The normal retirement date under the Plan for tenured Faculty members is the June 30 coincident with or next following their 65th birthday. The normal retirement date under the Plan for all other Eligible Employees is the first day of the month coincident with or next following their 65th birthday.

Termination Of Employment Before Retirement

If you terminate employment before normal retirement, your RA and RC contracts remain in force, including all benefits purchased by the Institute’s contributions. You do not forfeit any of the benefits that have already been set aside for

you. If you relocate to one of the many other institutions with a TIAA-CREF funded retirement plan, you may be able to participate in that institution’s plan immediately. Even if you do not participate in another institution’s retirement plan, or if you stop contributions to your TIAA and CREF annuities for another reason, your accumulations in TIAA will continue to be credited with the same interest and dividends as they would have been had you continued contributions. Accumulations in the available CREF and mutual fund accounts will continue to participate in the market experience of those accounts.

When you terminate employment, you will continue to have the flexibility to make investment transfers at any time before beginning income, subject to restrictions on the TIAA Traditional Account, or to start receiving annuity income from the broad range of income options offered by TIAA-CREF (see “Distribution Options” on page 7.16).

Beginning TIAA And CREF Retirement Annuity Income At Different Times And Under Different Options

Once you decide to receive your benefits as income, you have the flexibility to begin payment of all or a portion of your benefits from your TIAA annuity on one date and your CREF annuity on another date provided you have at least \$10,000 of accumulation in your annuity or account on the date payment begins. Under current administrative practice, you can also elect to receive income from your TIAA and/or CREF annuities under more than one distribution option, provided your accumulations under each option selected are at least \$10,000.

Required Benefit Beginning Date

Except for your accumulations as of December 31, 1986 (not including investment earnings after 1986) which are not required to begin payments before the date you reach age 75, retirement benefits must begin:

- (A) if you reach age 70 ½ before the calendar year 2000, no later than April 1 of the calendar year following the year in which you reach age 70 ½; or
- (B) if you reach age 70 ½ after December 31, 1999, no later than April 1 of the calendar year following the later of the calendar year in which you reach age 70 ½ or the calendar year in which you retire.

If you reached age 70 ½ during 2013, you have the option of deferring receipt of your benefits until April 1, 2014.

The payment of benefits according to the above rules is extremely important. Federal tax law imposes a 50% excise tax on the difference between the amount of benefits required by law to be distributed and the amount actually distributed if it is less than the required minimum amount.

TIAA-CREF will automatically contact you several months before the date you scheduled your benefits to begin on your application. You may decide, however, to begin receiving income sooner, in which case you should notify TIAA-CREF about two months in advance of that date. Usually, the later you begin to receive payments, the larger they will be: in TIAA, more dollars each month for life; in CREF, more Annuity Units each month for life.

Distribution Options

You may choose from among several types of income options when you retire or terminate employment. If you are married at the time you elect to begin retirement income, your right to choose an income option will be subject to your spouse's right (under federal pension law) to

survivor benefits (see "Spouse's Rights Under the ERISA Plans" on page 7.27), unless this right is waived by you and your spouse. The following income options are available

Retirement Annuity Income Options

One-Life (Single Life) Annuity — is designed to pay you an income for as long as you live. This option provides a larger monthly income for you than other annuity options, with all payments stopping at your death. This option is also available with a 10, 15 or 20 year guaranteed payment period (but not exceeding your life expectancy at the time you begin annuity income). If you die during the guaranteed period, payments in the same amount that you would have received continue to your Beneficiary for the rest of the guaranteed period.

Survivor Annuity — pays you a lifetime income, and if your spouse (or other Second Annuitant) lives longer than you, he or she continues to receive an income for life. The amount continuing to the survivor depends on which of the following three options you choose:

- **Two-thirds Benefit to Survivor.** At the death of either you or your Second Annuitant, the payments are reduced to two-thirds the amount that would have been paid if both had lived, and are continued to the survivor for life.
- **Full Benefit to Survivor.** The full income continues as long as either you or your Second Annuitant is living.
- **Half Benefit to Annuity Partner.** The full income continues as long as you live, and if your Second Annuitant survives you, he or she receives for life one-half the income you would have received if you had lived. If your Second Annuitant dies first, the full income continues to you for life.

These options are also available with a 10, 15 or 20 year guaranteed period, but not longer than the joint life expectancies of you and your spouse (or other Second Annuitant). The period may be limited by federal tax law.

Systematic Withdrawals

You may take systematic withdrawals (monthly, quarterly, or annually) from your CREF accounts, the TIAA Real Estate Account and mutual funds.

Lump Sum Withdrawals

TIAA Traditional — Lump sum withdrawals from your Retirement Choice (RC) contracts (for contributions made after 2009) are available only within 120 days of termination of employment. There is a 2.5 percent surrender charge for this option. After 120 days of termination, full or partial withdrawals may be made over 84 months (7 years) in monthly systematic payments.

All Other Funds — You can elect a lump sum withdrawal of 100% of your accumulations in CREF and the available mutual funds without restrictions after you have terminated employment.

Payments Over A Fixed Period

TIAA Traditional — TIAA accumulations may be withdrawn through the Transfer Payout Annuity (TPA) (see “Transferring Accumulations in the Plan” on page 7.11), and will be paid to you in substantially equal annual payments over a period of 7 years (9 years for RA contracts) when you terminate employment. Payments made under the TPA contract are subject to the terms of that contract.

All Other Funds — You may elect to receive 100% of your total accumulations from your CREF Accounts, TIAA Real Estate account and mutual funds over a fixed period of between two and 30 years (for RA contracts only). At the end of the selected period, all benefits will end. If you die during the period, payments will continue in the same amount to your Beneficiary until the end of the selected period. Current tax law requires that the period chosen not exceed your life expectancy or the joint life expectancy of you and your Beneficiary.

Other Distribution Options

The following options are also available but may have slightly different terms under the RC and RA

contracts. Please contact TIAA-CREF for more details on the specifics of each of these options under each contract type (RC and RA) when you are eligible to commence payments.

Minimum Distribution Option — This option is for Participants age 70 ½ or older. Under the MDO, you will receive the required federal minimum distribution while preserving as much of your accumulation as possible.

Retirement Transition Benefit Option (Combining Partial Cash Withdrawal and Annuity) — Under the Retirement Transition Benefit Option (RTB) you can receive one lump sum payment up to 10% of your TIAA and CREF accumulations at the time you start to receive your income as an annuity. The one lump sum payment can not exceed 10% of each account’s accumulation then being converted to annuity payments.

Interest Payment Retirement Option (IPRO) — TIAA Participants with a TIAA Traditional accumulation of at least \$10,000 under their RA contracts, may elect the TIAA Interest Payment Retirement Option (IPRO) which allows you to receive income while preserving your accumulation. IPRO is available if you are at least age 55 and it is at least one year prior to the required minimum distribution date. A similar distribution option is available for TIAA Traditional accumulations under RC contracts.

Under this option, you can receive monthly payments equal to the interest that would otherwise be credited to your TIAA Traditional annuity. Your accumulation is not reduced while you are receiving interest payments.

If you die while receiving interest payments under this option, your Beneficiary will receive the amount of your starting accumulation, plus interest earned but not yet paid. If you die after you have begun to receive your accumulation as an annuity, your Beneficiary will receive the benefits provided under the annuity income option you have selected.

Small Sum Repurchase — If you have terminated employment, you can request to “repurchase” small sums of accumulations in your RA and RC contracts. Upon repurchase, your entire accumulation will be payable by TIAA-CREF to you in a lump sum. This will be in full satisfaction of your rights and your spouse’s rights to retirement or survivor benefits. To request a repurchase, you must satisfy all of the following conditions at the time you request the repurchase:

- The total accumulation in all your TIAA RA/RC contracts (including contributions to RA/RC contracts under plans of other employers) is \$2,000 or less.
- You do not have a TIAA Transfer Payout Annuity (TPA) in effect.

Withdrawals may be subject to a surrender charge.

Rollover of Distributions

If you are entitled to receive a distribution from your contract which is an eligible “rollover distribution” (subject to any lump sum withdrawal limits), you may roll over all or a portion of it, either directly or within 60 days after receipt, into another eligible retirement plan, a traditional IRA, or a Roth IRA. Your payment cannot be rolled over to a SIMPLE IRA or a Coverdell Education Savings Account (formerly known as an education IRA). An “eligible retirement plan” includes a plan qualified under Section 401(a) of the Internal Revenue Code (i.e., a 401(k) plan, profit sharing plan, defined benefit plan, stock bonus plan or money purchase plan), a section 403(b) plan, and an eligible section 457(b) plan maintained by a governmental employer. An eligible rollover distribution, in general, is any cash distribution other than an annuity payment, a minimum distribution payment or a payment which is part of a fixed period payment over ten or more years. The distribution will be subject to a 20% federal withholding tax *unless* it is rolled over directly into another retirement plan or into a traditional IRA — this process is called a “direct” rollover. If you roll over your distribution to a Roth IRA, you will be subject to federal income tax on the full amount of your distribution but you may be eligible for tax

benefits when you take a distribution from the Roth IRA if certain conditions are satisfied.

If you have the distribution paid to you, then the plan must withhold 20% for federal income tax even if you intend to roll over the money into another retirement plan or into a traditional IRA within 60 days. To avoid withholding, instruct the fund sponsor to directly roll over the money for you.

Retirement Plan Loans

You may borrow against your TIAA Real Estate and CREF accumulations in your Retirement Annuity (RA) and Retirement Choice (RC) contracts. You will have to transfer funds into a TIAA Retirement Loan (RL) contract to obtain a loan.

Effective October 14, 2011, you are limited to a maximum of 4 outstanding loans at any given time (whether from your RC or your RA accounts). Effective January 1, 2014, only actively employed participants may obtain loans. However, if you terminate employment while you have an outstanding loan, you may continue to repay the loan in accordance with its terms.

The loan provision gives you the flexibility to use your retirement plan savings (your accounts due to your mandatory contributions and Institute contributions) as collateral for a loan of the same amount – while continuing to preserve the advantages of tax deferral, investment growth opportunity and security.

Generally the minimum loan amount is \$1,000 and the maximum loan amount is \$50,000. The maximum amount you can borrow may be less, however, depending on two factors: 1) the amount of your accumulation, and 2) whether you have had any other loans from any of Caltech’s plans within the last year.

If you have not had a plan loan in the previous year, your maximum loan cannot exceed the lesser of one-half of your vested account balance or \$50,000. In addition, your maximum loan amount is further limited to the lesser of:

- 1) 45% of your combined TIAA and CREF accumulation attributable to participation under this plan; or
- 2) 90% of your CREF and TIAA Real Estate accumulation attributable to participation under this plan.

The amount you are eligible to borrow is coordinated with any loans you may have from your TDA accounts. If you have had another loan from any Caltech plan (including the NonERISA TDA) within the last year, the maximum you can borrow will be reduced by that amount. In addition, if you default on a loan, your right to a future loan may be restricted. Further, the maximum loan amount will be reduced by the amount in default (plus interest) until the defaulted amount can be deducted from your accumulation.

The amount you borrow does not reduce your plan account. Instead, your plan account serves as collateral for the loan and continues to earn the normal crediting rate for the TIAA Traditional account. You are borrowing from TIAA and interest paid on the loan is retained by TIAA.

Interest on loans from this plan will be computed based on:

– Initially, the higher of

- 1) the Moody's Corporate Bond Yield Average for the calendar month ending two months before your loan is issued; or
- 2) the interest credited before your annuity starting date, as stated in the applicable rate schedule, plus 1 percent.

– Thereafter the rate will change annually, but only if the Moody's Corporate Bond Yield Average for the calendar month ending two months

before the anniversary of your loan differs from your current rate by at least a half percent. If the latest average differs by less than a half percent, your interest rate will remain the same for the next year.

Generally, you have one to five years to repay your loan. However, if you use the loan solely to purchase your primary residence, you can take up to ten years to repay. In addition, if you are married, your spouse must consent in writing to your request for a plan loan.

During a period of qualified military service, your loan payments may be suspended.

Contact TIAA-CREF to apply for a loan or if you have questions about the loan program. Contact information is provided in the Tools and Resources section.

THE ERISA TDA PLAN

This section describes opportunities offered by the Institute for voluntary 403(b) retirement savings called Tax Deferred Accounts (TDAs). The ERISA TDA plan was adopted effective January 1, 2010, for voluntary 403(b) contributions made on and after that date. Participation in the ERISA TDA plan is voluntary.

All Faculty, Postdoctoral Scholars, senior Postdoctoral Scholars, student employees and staff employees who are on the Caltech or JPL payroll may participate in the ERISA TDA plan. Visiting professors who are considered common law employees of another organization are not eligible to participate.

A TDA is a 403(b) tax-deferred retirement savings program available to employees of education and research institutions and certain tax-exempt organizations. It allows you to:

- Set aside money for retirement on a pre-tax basis.
- Reduce your taxable income, thus lowering your current income taxes.
- Defer taxes on TDA investment income until you begin receiving payments.

The investment vehicles offered under the ERISA TDA plan are offered solely through TIAA-CREF and are the same funds available under the Base Retirement Plan. It is intended that the Plan qualify as a participant directed account plan under ERISA Section 404(c). In selecting funds for the main investment options, Caltech's objective is to offer competitive choices and top-quality funds to Caltech employees. Caltech will periodically review the main investment menu to ensure that the available funds continue to help employees reach their retirement goals. The Institute's current selection of investment funds is not intended to limit future additions or deletions. You will be notified of any additions or deletions.

In addition, a self-directed brokerage account is also available.

The Administrator of the Plan is the Institute. The Plan year begins on January 1 and ends on December 31.

This summary highlights the details of the ERISA TDA. More detailed information is available from the Campus or JPL Benefits Office.

Contract Ownership and Vesting

The Institute (as Plan sponsor) holds ownership of the TIAA-CREF Retirement Choice Plus (RCP) contracts for the exclusive benefit of Plan participants. Payments under the Plan are made directly from TIAA-CREF to Participants. Participants are 100% vested in their account under the Plan's vesting provisions. This means that Plan participants retain the right to the vested account balances under the Plan – 100% immediate vesting in accordance with Caltech's plan provisions.

Your Contributions

You may contribute as much as allowed by federal tax law (Sections 402(g), 403(b), and 415(c) of the Internal Revenue Code). The maximum contribution allowed depends on a number of different factors, such as your salary*, length of service, and amount of prior contributions. You can find out your maximum contribution from the Campus or JPL Benefits Office.

Contributions are deducted from your paycheck on a pre-tax basis and are forwarded to TIAA-CREF at least monthly. Upon retirement, you may be eligible to defer compensation associated with the payment of sick leave credit. You can contact the Campus or JPL Benefits Office for more information. Your contributions are invested in Retirement Choice Plus (RCP) contracts with TIAA-CREF. You choose how to invest your contributions among the available investment options. You may enroll plus complete a salary deferral agreement online at www.tiaa-cref.org/caltech.

* *Fellowship stipends distributed by Caltech are not considered "salary" eligible for pre-tax contributions.*

Changing Or Stopping Your Contributions

A Salary Deferral Agreement is required to start, change, or stop your ERISA TDA plan contribution. To change or stop your Salary Deferral Agreement go to www.tiaa-cref.org/caltech and select the “Salary Deferral Agreement” link.

Transfers from the NonERISA TDA Plan to the ERISA TDA Plan

Your contributions made prior to 2010 will continue to be invested with the investment company you selected under the terms of the NonERISA TDA plan in effect on December 31, 2009. If you wish, you have the option of making a plan-to-plan transfer of funds currently in the NonERISA TDA plan to the ERISA TDA plan at any time. Once the transfer is processed by TIAA-CREF, check your Quarterly Statement to make sure your transfer is complete and accurate. Once a transfer is processed by TIAA-CREF you will not be able to transfer funds back to the NonERISA TDA plan.

Return from Military Leave

If you have returned to work from a military leave as defined in the Institute’s military leave policy, you may be eligible to “catch up” on contributions you were not able to make during your leave. Contact the Benefits Office immediately upon return to work for options available to you.

Rollover Contributions

Your account in the ERISA TDA is considered an account in “an eligible retirement plan”. Therefore, you can roll over any distribution of pre-tax contributions and investment gains or losses you may be entitled to receive from your prior employer’s retirement plan into your ERISA TDA. You may not roll over distributions from after-tax contribution accounts or Roth contribution accounts into your ERISA TDA account. Please contact TIAA-CREF to obtain information on any restrictions on rollover contributions and the procedures that must be followed to make a rollover contribution.

Investment Options

The ERISA TDA plan offers a wide range of investment options to help you achieve your retirement savings goals.

The investment options are the same options available under the Base Retirement Plan. Please refer to the Investment Menu page 7.9. In addition, a self-directed brokerage account is also available.

Build Your Own Portfolio

The Investment Menu features a wide range of funds in different asset classes from a variety of companies – with funds representing varying degrees of investment risk. Risk is tied directly to rewards – the more risk you’re willing to take, the greater the potential for gains, as well as for losses.

It is up to you to choose which investment option is right for you, based on the amount of risk and potential rate of return. Before you choose an investment, you should investigate the performance of the investment options offered and determine if they meet your individual needs. Description of the individual funds may be obtained by contacting TIAA-CREF (see Tools and Resources on page 7.31).

You can simplify your decision-making process by choosing one of TIAA-CREF’s Lifecycle Funds – model portfolios targeted to your anticipated year of retirement which automatically rebalance to become more conservative as you move closer to that date. Or you can build your own portfolio with investment choices in the essential asset classes you need: equities (stocks), fixed income (bonds), guaranteed, real estate and money market.

In addition, once you are enrolled in the ERISA TDA Plan, a self-directed brokerage window is available if you seek a wider menu of investments than available from the core Investment Menu.

The self-directed brokerage window offers a wide array of the nation’s best-known fund families, including Fidelity. There can be additional costs associated with the

brokerage account. You can transfer balances from your mutual fund and annuity accounts to your brokerage account and back again with certain restrictions. You can also arrange to have automatic contributions made to your brokerage account. However, if you elect to open a brokerage account, keep in mind that Caltech has not selected, nor is it responsible for monitoring, any of the investments available under the brokerage window. You are fully and solely responsible for your brokerage window investment decisions, including performing the due diligence necessary to determine suitability of the investment securities that you may select. Caltech also is not responsible for an act or failure of the brokerage firm or brokerage representatives providing services under the brokerage window.

Changing Your Investment Choices

You may change your investment allocation as often as daily by contacting TIAA-CREF directly or through TIAA-CREF's website at www.tiaa-cref.org. You may change future contributions and leave your existing balances intact or you may choose to change your accumulated balances among investment funds, as allowed.

Transfers from CREF Accounts, TIAA Real Estate Account and the available mutual funds must be at least \$1,000 each time (except for systematic transfers which must be at least \$100 each time), or your entire accumulation, whichever is less. Transfers made as a percentage must also meet the dollar minimums. Transfers from TIAA Real Estate Account are limited to once per calendar quarter. TIAA-CREF can place limits on transfers in the future.

Also, various educational workshops and printed materials are offered by TIAA-CREF to assist you with managing your investments and preparing for your retirement.

Retirement Choice Plus Annuities (RCP)

All contributions under the ERISA TDA Plan will be invested in a Retirement Choice Plus contract. This contract has similar provisions to the Retirement Choice contracts now being used in the Base Retirement Plan. A comparison of the main contract features that differ from the SRA contracts used in the NonERISA TDA Plan is shown below:

Contract Requirements Summary

Contract: Group Supplemental Retirement Annuity (GSRA) (For contributions made through December 31, 2009)	Contract: Retirement Choice Plus (RCP) (For contributions made beginning January 1, 2010)
Plan not subject to ERISA	Plan subject to ERISA
Guaranteed interest rate in TIAA Traditional accumulation stage: 3% The TIAA Traditional Annuity also offers the opportunity to receive additional amounts of interest plus the guaranteed rate. These additional amounts, when declared by the TIAA Board of Trustees, remain in effect for the "declaration year" that begins each March 1.	Guaranteed interest rate in TIAA Traditional accumulation state: Floats between 1% and 3% based on the five-year Constant Maturity Treasury Rate, less 125 basis points. The TIAA Traditional Annuity also offers the opportunity to receive additional amounts of interest plus the guaranteed rate. These additional amounts, when declared by the TIAA Board of Trustees, remain in effect for the "declaration year" that begins each March 1.
Lump-sum transfers and withdrawals No restrictions, completely liquid and cashable.	Lump-sum transfers and withdrawals No restrictions, completely liquid and cashable.
Annuity Settlement Rates for TIAA Traditional Based on 2.5% guaranteed interest, and a fixed mortality table.	Annuity Settlement Rates for TIAA Traditional Based on 2% guaranteed interest and a mortality table that is updated each year.
Institutional Transfers of plan assets Not available for TIAA and CREF annuity accounts within the GSRA contract.	Institutional Transfers of plan assets Available if the plan changes the plan's investment offerings (for instance, due to a fund's poor performance).

Withdrawals

The ERISA TDA is intended to help you save for your retirement. In general, you may begin receiving your benefits following termination of employment. You may withdraw your funds anytime after age 59½ regardless of employment status without tax penalty. All withdrawals are subject to federal and state income tax. If you choose a lump sum withdrawal and do not directly rollover the funds to another eligible retirement plan or Individual Retirement Account (IRA), your withdrawal will be subject to a 20% federal tax withholding.

Hardship Withdrawals

Under certain circumstances, you may be permitted to withdraw your contributions in the case of a financial hardship, as defined by the IRS. These withdrawals are limited to the amount you have contributed and do not include any earnings you have accumulated. Contact TIAA-CREF for information about hardship withdrawals.

Lump sum withdrawals during active employment before age 59½ are permitted only if you are called to active military duty for more than 30 days or if you experience a bona fide hardship as defined by the IRS, and may be subject to a 10% federal penalty tax.

If you take a hardship withdrawal from any of your TDA accounts, any existing employee voluntary pre-tax deferrals to all Caltech-sponsored plans will stop immediately following your hardship withdrawal for a period of six months. After the six month suspension is over you must complete a new online Salary Deferral Agreement.

Withdrawals During Active Military Duty

If you are called to active military duty for more than 30 days, you are eligible to withdraw part or all of your TDA accounts, even though you may be considered still actively employed. In that event, your voluntary pre-tax deferrals to the ERISA TDA plan will be suspended for six months. If you are ordered to active duty for at least 180 days, you

may be eligible to receive a qualified reservist distribution, which does not require a suspension of deferrals.

Penalties For Early Withdrawals

If you terminate employment with the Institute, you may elect to receive a lump sum distribution before you reach age 59½. However, it may be subject to a 10% federal penalty tax. In general, you may defer receiving your benefits until the April 1 following the calendar year in which you reach age 70½. If you reached age 70½ during 2013, you have the option of deferring receipt of your benefits until April 1, 2014.

Direct Rollovers

Following termination of employment you can choose a direct rollover of all or any portion of your distribution that is an “eligible rollover distribution”. You may rollover your funds anytime after age 59½ regardless of employment status. In a direct rollover, the eligible rollover distribution is paid directly from your 403(b) account to a traditional IRA, a Roth IRA, or another eligible retirement plan that accepts rollovers. Your payment can not be rolled over to a SIMPLE IRA or a Coverdell Education Savings Account (formerly known as an education IRA). An “eligible retirement plan” includes a plan qualified under Section 401(a) of the Internal Revenue Code (i.e., a 401(k) plan, profit sharing plan, defined benefit plan, stock bonus plan or money purchase plan), a section 403(b) plan and an eligible section 457(b) plan maintained by a governmental employer.

If you choose a direct rollover to an eligible retirement plan or a traditional IRA, you are not taxed on the distribution until you actually take it out of the receiving eligible retirement plan or traditional IRA account. If you have the distribution paid to you, then the plan must withhold 20% for federal income tax even if you decide to roll over the money into another retirement plan or into a traditional IRA within 60 days. If you choose a direct rollover to a Roth IRA, you will be taxed on the full amount of your distribution in the year of distribution but you may

be eligible for tax benefits when you take a distribution from the Roth IRA if certain conditions are satisfied.

Effective for distributions after December 31, 1999, a financial hardship withdrawal cannot be rolled over to another eligible retirement plan (i.e., 401(k), 403(b), etc.) or an IRA.

TDA Plan Loans

The loan provision gives you the flexibility to use your TDA account savings in the GSRA (prior to January 1, 2010) and RCP (beginning January 1, 2010) as collateral for a loan – while continuing to preserve the advantages of tax deferral, investment growth opportunity and security. For loans based on RCP accumulations, you will have to transfer funds into a TIAA Retirement Loan (RL) contract to obtain a loan.

Effective January 1, 2014, only actively employed participants may obtain loans from the ERISA TDA Plan. However, if you terminate employment while you have an outstanding loan, you may continue to repay the loan in accordance with its terms.

Generally the minimum loan amount is \$1,000 and the maximum loan amount is \$50,000. The maximum amount you can borrow may be less, however, depending on two factors: 1) the amount of your accumulation, and 2) whether you have had any other loans from any of Caltech's plans within the last year.

If you have not had a plan loan in the previous year, your maximum loan cannot exceed the lesser of one-half of your vested account balance or \$50,000. Your maximum loan amount is further limited to

- 1) 45% of your combined TIAA and CREF accumulation attributable to participation under this plan; or
- 2) 90% of your CREF and TIAA Real Estate accumulation attributable to participation under this plan for RL loans or

- 3) 90% of your TIAA Annuity accumulation attributable to participation under this plan for a GSRA loan.

If you have had another loan from any Caltech plan (including the NonERISA TDA) within the last year, the maximum you can borrow will be reduced by that amount. In addition, if you default on a loan, your right to a future loan may be restricted. Further, the maximum loan amount will be reduced by the amount in default (plus interest) until the defaulted amount can be deducted from your accumulation.

The amount you borrow does not reduce your plan account. Instead, your plan account serves as collateral for the loan and continues to earn the normal crediting rate for the TIAA Traditional account. You are borrowing from TIAA and interest paid on the loan is retained by TIAA.

Interest on loans from this plan will be computed based on:

- Initially, the higher of
 - 1) the Moody's Corporate Bond Yield Average for the calendar month ending two months before your loan is issued; or
 - 2) the interest credited before your annuity starting date, as stated in the applicable rate schedule, plus 1 percent.
- Thereafter the rate will change annually, but only if the Moody's Corporate Bond Yield Average for the calendar month ending two months before the anniversary of your loan differs from your current rate by at least a half percent. If the latest average differs by less, your interest rate will remain the same for the next year.

Generally, you have one to five years to repay your loan. However, if you use the loan solely to purchase your primary residence, you can take up to ten years to repay. In addition, for loans from the ERISA TDA plan, your spouse must consent in writing to your request for a plan loan if you are married.

During a period of qualified military service, your loan payments may be suspended. Contact TIAA-CREF to apply for a loan or if you have questions about the loan program. Contact information is provided in the Tools and Resources section.

Payment Of Benefits

You may choose from among several types of income options when you retire or terminate employment. If you are married at the time you elect to begin retirement income, your right to choose an income option from the ERISA TDA plan will be subject to your spouse's right (under federal pension law) to survivor benefits (see "Spouse's Rights Under the ERISA Plans" on page 7.27), unless this right is waived by you and your spouse. The following payment options are available (contact TIAA-CREF for more detailed descriptions of the contract terms for each option):

- **Lump Sum** — you will be paid the entire balance of your account in one lump sum payment.
- **Annuity Income** — you may choose from a variety of annuity income options, which pay benefits either over the remainder of your life, with optional guaranteed periods. You may also choose options that will continue all or a percentage of your benefits to your spouse or other Beneficiary in the event of your death.

SPOUSE'S RIGHTS UNDER THE ERISA PLANS

Under the Base Retirement Plan and the ERISA TDA Plan, benefits must be paid to married Participants in the Plan only as described below, unless a written waiver of the benefits by the Participant and a written consent to the waiver by the spouse is filed with TIAA-CREF. This provision applies to both retirement benefits and pre-retirement death benefits.

If benefits began before your death, your surviving spouse at your death will continue to receive income that is at least half of the annuity income payable during the joint lives of you and your spouse (joint and survivor annuity). If you die before annuity income begins, the full current value of your annuity accumulation becomes payable (pre-retirement death benefit). Federal law requires that at least 50% of such benefit be paid to your spouse (with the remaining 50% paid to your designated Beneficiary) unless your spouse has waived, and consented in writing to an alternate Beneficiary for, such benefit. Pre-retirement death benefits are payable in a single sum or under one of the income options offered by TIAA-CREF.

Married Participants and their spouses may waive the spouse's right to a joint and survivor annuity or his or her pre-retirement death benefit only if a written waiver of the benefit signed by the Participant and the spouse (and notarized) is filed with TIAA-CREF. The necessary forms will be provided to the Participant by TIAA-CREF.

For post-retirement survivor benefits (joint and survivor annuity), the waiver may be made only during the 180-day period before benefits begin. The waiver also may be revoked during the same period. It may not be revoked after annuity income begins.

The period during which you and your spouse may elect to waive the pre-retirement survivor death benefit begins on the first day of the Plan year in

which you reach age 35. The period continues until the earlier of your death or the date you start receiving annuity income. If you die before reaching age 35 — that is, before you have had the option to make a waiver — 50% of the current value of the annuity accumulation is payable automatically to your surviving spouse in a single sum, or under one of the income options offered by TIAA-CREF; the remaining 50% is payable to your designated Beneficiary. If you terminate employment before age 35, the period for waiving the spousal pre-retirement death benefit begins no later than the date of termination. The waiver also may be revoked during the same period.

If a judgment, decree or order made following a state domestic relations law establishes the rights of another person (the "alternate payee") to your benefits under this Plan, and if such an order (called a "qualified domestic relations order") is for providing child support, alimony or other marital property payments, then payments will be made according to that order provided the order does not conflict with the provisions of the Plan or the terms of a previous qualified domestic relations order. If a court issues a qualified domestic relations order, the order overrides the usual requirements that your spouse be considered your primary Beneficiary for a portion of the accumulation. Copies of the Plan's procedures relating to qualified domestic relations orders are available on written request to the Plan Administrator.

CLAIMS PROCEDURES

The following rules describe the claim procedures under the Base Retirement Plan and the ERISA TDA Plan:

- **Filing a claim for benefits** — A claim or request for Plan benefits is filed when the requirements of a reasonable claim-filing procedure have been met. A claim is considered filed when a written communication is made to the Director of Benefits, Human Resources.
- **Processing the claim** — The Plan Administrator must process the claim within 90 days after the claim is filed. If an extension of time for processing is required, written notice must be given to you before the end of the initial 90-day period. The extension notice must indicate the special circumstances requiring an extension of time and the date by which the Plan expects to make its final decision. In no event can the extension period exceed a period of 90 days from the end of the initial 90-day period.
- **Denial of claim** — If a claim is wholly or partially denied, the Plan Administrator must notify you within 90 days following receipt of the claim (or 180 days in the case of an extension for special circumstances). The notification must state the specific reason or reasons for the denial, specific references to pertinent Plan provisions on which the denial is based, a description of any additional material or information necessary for claim approval, and appropriate information about the steps to be taken if you wish to submit the claim for review. If notice of the denial of a claim is not given to you within the 90/180-day period, the claim is considered denied and you must be permitted to proceed to the review stage.
- **Review procedure** — You or your authorized representative has at least 60 days after receipt of a claim denial to appeal the denied claim to an appropriate named fiduciary or individual

designated by the fiduciary and to receive a full and fair review of the claim. As part of the review, you must be allowed to see all Plan documents and other papers that affect the claim and must be allowed to submit issues and comments and argue against the denial in writing.

Decision on review — The Plan must conduct the review and decide the appeal within 60 days after the request for review is made. If special circumstances require an extension of time for processing (such as the need to hold a hearing if the Plan procedures provide for such a hearing), you must be furnished with written notice of the extension. Such notice must be provided no later than 120 days after receipt of a request for review. The decision on review must be written in clear and understandable language and must include specific reasons for the decision as well as specific references to the pertinent Plan provisions on which the decision is based. If the decision on review is not made within the time limits specified above, the appeal will be considered denied. If appeal is denied, in whole or in part, you have a right to file suit in a state or federal court.

ADDITIONAL PLAN INFORMATION

Since the Base Retirement Plan and the ERISA TDA Plan are defined contribution plans, they are not insured by the Pension Benefit Guaranty Corporation (“PBGC”). The PBGC is the government agency that guarantees certain types of benefits under covered plans.

Base Retirement Plan ERISA Plan Number: 002

The benefits under the Base Retirement Plan are provided by retirement choice annuity contracts and retirement annuity contracts issued by TIAA and CREF (TIAA plan number 403497).

Teachers Insurance and Annuity Association
College Retirement Equities Fund
730 Third Avenue, New York, NY 10017
1-800-842-2733

ERISA TDA ERISA Plan Number: 005

The benefits under the ERISA TDA Plan are provided by retirement choice plus annuity contracts issued by TIAA and CREF (TIAA plan number 403498).

Teachers Insurance and Annuity Association
College Retirement Equities Fund
730 Third Avenue, New York, NY 10017
1-800-842-2733

Retirement

THE 457(B) DEFERRED COMPENSATION PLAN

This section describes opportunities offered by the Institute for voluntary deferred compensation savings called the 457(b) Deferred Compensation Plan. The 457(b) Plan is a tax-deferred compensation plan that is available to employees who meet the salary threshold for eligibility. It works similar to the Voluntary Retirement Savings (TDA) Plan. You make pretax contributions to the 457(b) Plan, reducing your current taxable income, so you pay less in taxes now. Your earnings also remain tax free until you begin making withdrawals. You can use this plan in addition to participating in the Caltech Base Retirement Plan and Voluntary Retirement Savings (TDA) Plan. Because the 457(b) Deferred Compensation Plan is a non-qualified plan, the account and investments held are assets of the California Institute of Technology and are subject to the claims of general creditors.

Eligibility

What determines eligibility for the 457(b) plan?

Your annual salary rate as of November 1 of each year must meet the salary threshold for eligibility. The November 1, 2013 salary threshold of \$208,100 determines your eligibility to participate in the plan for the plan year beginning January 1, 2014.

How is eligibility determined in the future?

Each year the salary rate threshold (\$208,100 for 2014, for example) is increased to ensure the plan remains limited to a select group of management or highly compensated employees. The Plan Administrator determines the new salary rate threshold each November for determining who is eligible for the plan the following January 1.

What if the salary falls below the threshold for eligibility?

As long as your annual salary rate does not fall below 90% of the salary rate threshold, you may continue to participate in the plan and make contributions. If your annual rate of salary falls below 90% of the indexed salary rate threshold for any reason, you will not be able to make contributions to the plan effective the following January 1. You may become eligible for the plan in a future year if your regular salary equals or exceeds the indexed compensation salary rate threshold in effect on a subsequent November 1.

How much can I contribute?

In 2014, you can contribute up to \$17,500, the maximum annual contribution amount.

How does participation in the 457(b) Plan affect the Voluntary Retirement Savings (TDA) Plan?

You can choose to participate in the TDA Plan, the 457(b) Plan (if you are eligible), or both. Generally speaking, you may want to contribute to the 457(b) Plan if you are making the maximum allowable contributions to the TDA Plan. If you choose to contribute to both plans, in 2014 the maximum allowable contribution amount is generally up to \$17,500 to each plan, or \$35,000 total for both plans. Contact TIAA-CREF or the Caltech/JPL benefits office for questions regarding your specific personal contribution limits.

What investment options are available under the 457(b) Plan?

The 457(b) Plan provides the same investment options as the Caltech Base Retirement Plan. See the Investment Menu on page 7.9 for options as of February 6, 2014. For the latest Investment Menu go to www.tiaa-cref.org/caltech click on Plan and Investments tab, then click on plan and investment choices.

What are the differences between the TDA 403(b) and 457(b) plans?

The primary distinction between the two plans is that the assets of a non-qualified 457(b) plan are considered part of the employer's general assets

and are subject to the claims of its creditors. The plan participants are not protected by ERISA fiduciary requirements. Other differences between the two plans are summarized below.

- Non-qualified 457(b) deferred compensation plan account balances are subject to the claims of the employer's general creditors
- Loans and hardship withdrawals are not available in the 457(b) Deferred Compensation Plan;
- 457(b) account balances cannot be rolled over into other plan types and IRAs
- Catch-up contributions are not available in the 457(b) plan

Death Benefits

Death of the participant before benefits begin: what distribution options are available to beneficiary?

Distribution to the beneficiary will be paid as designated by the participant as a lump sum, a series of equal payments for a fixed time, or equal payments over the beneficiary's lifetime. If the participant has not specified a method of payment, distribution to the beneficiary will be made in a lump sum 121 days after the participant's date of death. Payments to a surviving spouse must begin no later than the end of the year the participant would have attained age 70½. Non-spouse beneficiaries have the same distribution options as spousal beneficiaries except that their benefits must begin no later than the end of the calendar year following the year in which the participant died.

Distributions upon Termination or Retirement

Distribution Options from the plan
You are eligible to receive a lump sum distribution when you terminate employment. You have the option of completing a written election, within 120 days after your employment ends, to defer the start

of your benefits to a date you choose. You must promptly notify TIAA-CREF of your termination to receive the election form. If your written election to defer payment is not received within 120 days after your employment ends, your benefit will be paid in a lump sum amount and will be subject to applicable income taxes.

How long can I defer the start of my benefits from the plan?
Federal law requires that distribution of your account begin no later than the April 1 following the calendar year in which you reach age 70½.

Rollovers
Federal law prohibits rolling over contributions from an IRA or other plan into your 457(b) account. However, you can roll 457(b) amounts only into another tax-exempt organization's 457(b) plan.

TERMS YOU SHOULD KNOW

Accumulation Units

Shares of participation in an underlying investment portfolio. Your contributions to a CREF variable annuity account are used to buy Accumulation Units in the underlying portfolio of securities held in that account. (See page 7.11)

Annual Regular Salary

Your Regular Salary paid for the Plan Year. Regular Salary is described on page 7.5.

Base Retirement Plan

An alternative name for the California Institute of Technology Defined Contribution Retirement Plan often used internally.

Eligible Employee

Eligible Employee is defined in the section titled “Eligibility” beginning on page 7.1.

Eligibility Service

A period used in determining the initial eligibility of a Staff Employee to participate in the plan (See page 7.3.)

Faculty

See the Eligibility Section on page 7.1, under the heading “Faculty.”

Key Staff Employee

See the Eligibility Section on page 7.1 under the heading “Key Staff Employee.”

Minimum Compensation Level

As described on page 7.1, the Minimum Compensation Level is \$102,440 as of October 1, 2013. This amount will be adjusted each October 1 to reflect future cost of living increases.

Participant Contributions

Those contributions which certain Faculty and Key Staff Participants are required to make as described on page 7.6.

Plan Administrator

The California Institute of Technology.

Postdoctoral Scholars

See the Eligibility Section on page 7.2 under the heading “Staff Employee”

Retirement Annuities

A form of payment generally providing periodic payments at fixed intervals during retirement. Different payment options are available for your retirement annuity. (See page 7.16.)

Retirement Plan Earnings for Staff Employees

If you are a staff employee, your earnings as reported on your W-2 Box 1 plus pre-tax contributions to an eligible plan of deferred compensation (such as medical/dental plans, 403(b), 457(b) etc.) are used to determine Institute Contributions. See page 7.6.

Salary Deferral Agreement

The enrollment form you must complete online to authorize your contributions to a Tax Deferred Account (see page 7.20). A new agreement is required each time you start, increase, decrease, or stop your contributions.

Second Annuitant

The person designated under a survivor annuity form of payment to receive benefits after your death. (See page 7.16.)

Staff Employee

See the Eligibility Section on page 7.2 under the heading “Staff Employee.”

Year of Service

A 12-month period of service used to determine the amount of Institute contributions for staff employees. (See page 7.7.)

TOOLS AND RESOURCES

TIAA-CREF

TELEPHONE COUNSELING CENTER

Call 800 842-2776

Monday to Friday, 5 a.m. to 7 p.m., Saturday 6 a.m. to 3 p.m. (PT)

- Enter SSN or contract number to be directed to your Caltech team
- Enroll in Voluntary TDA Plan and/or sign up to receive asset allocation advice

AUTOMATED TELEPHONE SYSTEM (ATS)

Call 800 842-2253

Available 24 hours a day, 7 days a week

You may call the automated telephone system to create a Personal Identification Number (PIN), you will be asked to provide your date of birth, social security number and contract number.

TTY DIRECT LINE

Call 800 842-2755

A designated line for hearing- or speech impaired participants using text telephones. Consultants are available Monday to Friday, 5 a.m. to 7 p.m., Saturday, 6 a.m. to 3 p.m. (PT)

FIDELITY

AUTOMATED TELEPHONE SYSTEM (ATS)

Call 800-343-0860

Available 24 hours a day, 7 days a week

IN-PERSON ASSISTANCE

Sign up for an individual appointment. Consultants can meet with you in our local Pasadena Office (35 North Lake Ave., Suite 800, Pasadena, CA 91101)

Go to www.tiaa-cref.org/events or call

800 732-8353

Monday to Friday, 5 a.m. to 5 p.m. (PT)

ONLINE ASSISTANCE

- Go to www.tiaa-cref.org/caltech
- To gain access to your accounts create a Personal Identification Number (PIN). You will need to provide your date of birth, social security number and contract number
- Research information on new investment options
- Click on links to salary deferral tool (for Voluntary TDA Plan)
- Click on link to "Account Access" to submit asset allocation changes

TTIAA-CREF Brokerage Service

www.tiaa-cref.org/brokerage or call 800 927-3059

IN-PERSON ASSISTANCE

Fidelity Investor Center
123 South Lake Avenue
Pasadena, CA 91101

Phone: 800-638-0620

Hours: 8:30 a.m. – 5:00 pm, Monday - Friday

ONLINE ASSISTANCE

www.fidelity.com

NonERISA TDA PLAN

This section describes opportunities offered by the Institute for voluntary 403(b) retirement savings called Tax Deferred Accounts (TDAs). Prior to January 1, 2010, the TDA plan allowed you to select from investment vehicles offered by Fidelity and the Teachers Insurance and Annuity Association-College Retirement Equities Fund (TIAA-CREF). This TDA plan continues to be maintained, but does not accept any new contributions after December 31, 2009. It is not subject to ERISA and is referred to as the “NonERISA TDA plan” throughout this handbook.

The program is considered a “Tax Deferred Annuity” or TDA plan. A TDA is a 403(b) tax-deferred retirement savings program available to employees of education and research institutions and certain tax-exempt organizations. It allows you to:

- Set aside money for retirement on a pre-tax basis.
- Reduce your taxable income, thus lowering your current income taxes.
- Defer taxes on TDA investment income until you begin receiving payments.

Rollover Contributions

Your account in the NonERISA TDA plan is considered an account in “an eligible retirement plan”. Therefore, you can roll over any distribution of pre-tax contributions and investment gains or losses you may be entitled to receive from your prior employer’s retirement plan into your NonERISA TDA plan contract. You may not roll over distributions from after-tax contribution accounts or Roth contribution accounts into your NonERISA TDA plan account. Please contact TIAA-CREF or Fidelity as appropriate to obtain information on any restrictions on rollover contributions and the procedures that must be followed to make a rollover contribution.

Investment Options

The NonERISA TDA plan offers a variety of investment options. The investment options available for funds that you have in the NonERISA TDA plan, for contributions made prior to 2010, have not changed. No new contributions will be accepted in this plan after 2009, but you may transfer assets within this plan at any time among the following investment options. Some transfer limitations may apply. Please contact the investment company for details.

Fidelity Investments

Fidelity offers over 100 mutual fund options with different levels of risk and return. Descriptions of the individual funds are available by calling Fidelity, see Tools and Resources on page 7.31 for contact information.

Your mutual fund options are divided into the following categories:

Money Market Funds

Income (or Bond) Funds

Growth and Income Funds

Growth Funds

Asset Allocation Funds which allocate investments among stocks, bonds, and short-term instruments seeking high total return with reduced risk over the long term. Share price, yield, and return will vary.

Freedom Funds that vary asset allocation among stocks, bonds and short-term investments with target maturity or retirement dates. After the fund’s target maturity date, the fund’s investment objective will be to seek high current income and, as a secondary objective, capital appreciation.

You may make transfers among the available Fidelity funds at any time.

Contact Fidelity for details regarding transfers from Fidelity funds or refer to the Fidelity web site at <http://www.fidelity.com/non-profits> for more specific information.

TIAA-CREF Supplemental Retirement Annuity (SRA)

Descriptions of the TIAA-CREF accounts are available via the TIAA-CREF web site noted below. TIAA-CREF currently offers ten investment options with varied levels of risk and return. The investment options are as follows:

TIAA Traditional Annuity

CREF Bond Market Account

CREF Equity Index

CREF Global Equities Account

CREF Growth Account

CREF Inflation-Linked Bond Account

CREF Money Market Account

TIAA Real Estate

CREF Social Choice Account

CREF Stock Account

You may make transfers among TIAA-CREF funds at any time.

You may refer to the TIAA-CREF web site at <http://www.tiaa-cref.org> for more specific information. Please see a CREF Prospectus for additional information regarding the CREF Accounts.

Transfers from the NonERISA TDA Plan to the ERISA TDA Plan

If you wish, you have the option of making a plan-to-plan transfer of funds currently in the NonERISA TDA plan to the ERISA TDA plan at any time. However, if you do so, you will not be able to transfer funds back to the NonERISA TDA plan.

Changing Your Investment Choices

You may choose to change your accumulated balances among investment funds, as allowed.

Transfers from CREF Accounts, TIAA Real Estate Account and the available mutual funds must be at least \$1,000 each time (except for systematic

transfers which must be at least \$100 each time), or your entire accumulation, whichever is less. Transfers made as a percentage must also meet the dollar minimums. Transfers from TIAA Real Estate Account are limited to once per calendar quarter. TIAA-CREF can place limits on transfers in the future.

Also, various educational workshops and printed materials are offered by TIAA-CREF to assist you with managing your investments and preparing for your retirement.

Prudential MEDLEY Program

The Prudential Medley Program was closed for new enrollments and contributions as of January 1, 2001. If you have a Prudential TDA, you may refer to the Prudential web site at <http://www.prudential.com> for status on your account.

Mutual Benefit Life

Mutual Benefit Life was closed for new enrollments as of June 1991. However, if you have a Mutual Benefit Life TDA, you may call Sun America (formerly Mutual Benefit Life) at 1-877-999-9205 for information on the status of your account, or the Campus or JPL Benefits Office.

If you have a Prudential or a Mutual Benefit Life TDA, you have the option of exchanging your old contract for a TIAA-CREF contract in the NonERISA TDA Plan at any time. However, if you do so, you will not be able to transfer funds back to the old contract.

Withdrawals

The NonERISA TDA plan is intended to help you save for your retirement. In general, you may begin receiving your benefits following termination of employment. You may withdraw your funds anytime after age 59½ regardless of employment status without tax penalty. All withdrawals are subject to federal and state income tax. If you choose a lump sum withdrawal and do not directly rollover the funds to another eligible retirement plan or Individual Retirement Account

(IRA), your withdrawal will be subject to a 20% federal tax withholding.

Direct Transfers

Effective January 1, 2010 accumulations in the NonERISA TDA plan may be transferred from Fidelity to TIAA RCP account at any time (direct transfers). See individual contracts for any restrictions that may apply.

Hardship Withdrawals

Under certain circumstances, you may be permitted to withdraw your contributions in the case of a financial hardship, as defined by the IRS. These withdrawals are limited to the amount you have contributed and do not include any earnings you have accumulated. Contact the individual carrier for information about hardship withdrawals.

Lump sum withdrawals during active employment before age 59½ are permitted only if you are called to active military duty for more than 30 days or if you experience a bona fide hardship as defined by the IRS, and may be subject to a 10% federal penalty tax.

If you take a hardship withdrawal from any of your TDA accounts, any existing employee voluntary pre-tax deferrals to all Caltech-sponsored plans will stop immediately following your hardship withdrawal for a period of six months. After the six month suspension is over you must complete a new online Salary Deferral Agreement.

Withdrawals During Active Military Duty

If you are called to active military duty for more than 30 days, you are eligible to withdraw part or all of your TDA accounts, even though you may be considered still actively employed. In that event, your voluntary pre-tax deferrals to the ERISA TDA plan will be suspended for six months. If you are ordered to active duty for at least 180 days, you may be eligible to receive a qualified reservist distribution, which does not require a suspension of deferrals.

Penalties For Early Withdrawals

If you terminate employment with the Institute, you may elect to receive a lump sum distribution before you reach age 59½. However, it may be subject to a 10% federal penalty tax. In general, you may defer receiving your benefits until the April 1 following the calendar year in which you reach age 70½.

Direct Rollovers

Following termination of employment you can choose a direct rollover of all or any portion of your distribution that is an “eligible rollover distribution”. You may rollover your funds anytime after age 59½ regardless of employment status. In a direct rollover, the eligible rollover distribution is paid directly from your 403(b) account to a traditional IRA, a Roth IRA, or another eligible retirement plan that accepts rollovers. Your payment can not be rolled over to a SIMPLE IRA or a Coverdell Education Savings Account (formerly known as an education IRA). An “eligible retirement plan” includes a plan qualified under Section 401(a) of the Internal Revenue Code (i.e., a 401(k) plan, profit sharing plan, defined benefit plan, stock bonus plan or money purchase plan), a section 403(b) plan and an eligible section 457(b) plan maintained by a governmental employer.

If you choose a direct rollover to an eligible retirement plan or a traditional IRA, you are not taxed on the distribution until you actually take it out of the receiving eligible retirement plan or traditional IRA account. If you have the distribution paid to you, then the plan must withhold 20% for federal income tax even if you decide to roll over the money into another retirement plan or into a traditional IRA within 60 days. If you choose a direct rollover to a Roth IRA, you will be taxed on the full amount of your distribution in the year of distribution but you may be eligible for tax benefits when you take a distribution from the Roth IRA if certain conditions are satisfied.

Effective for distributions after December 31, 1999, a financial hardship withdrawal cannot be rolled over to another eligible retirement plan (i.e., 401(k), 403(b), etc.) or an IRA.

TDA Plan Loans

The loan provision gives you the flexibility to use your TDA account savings in the GSRA and RCP as collateral for a loan of the same amount – while continuing to preserve the advantages of tax deferral, investment growth opportunity and security. For loans based on RCP accumulations, you will have to transfer funds into a TIAA Retirement Loan (RL) contract to obtain a loan.

Generally the minimum loan amount is \$1,000 and the maximum loan amount is \$50,000. The maximum amount you can borrow may be less, however, depending on two factors: 1) the amount of your accumulation, and 2) whether you have had any other loans from any of Caltech's plans within the last year.

If you have not had a plan loan in the previous year, your maximum loan cannot exceed the lesser of one-half of your vested account balance or \$50,000. Your maximum loan amount is further limited to

- 1) 45% of your combined TIAA and CREF accumulation attributable to participation under this plan; or
- 2) 90% of your CREF and TIAA Real Estate accumulation attributable to participation under this plan for RL loans or
- 3) 90% of your TIAA Annuity accumulation attributable to participation under this plan for a GSRA loan.

If you have had another loan from any Caltech plan within the last year, the maximum you can borrow will be reduced by that amount. In addition, if you default on a loan, your right to a future loan may be restricted. Further, the maximum loan amount will be reduced by the amount in default (plus interest) until the defaulted amount can be deducted from your accumulation.

The amount you borrow does not reduce your plan account. Instead, your plan account serves as collateral for the loan and continues to earn the normal crediting rate for the TIAA Traditional account. You are borrowing from TIAA and interest paid on the loan is retained by TIAA.

Interest on loans from this plan will be computed on the following basis:

- The interest rate you pay initially will be the higher of 1) the Moody's Corporate Bond Yield Average for the calendar month ending two months before your loan is issued; or 2) the interest credited before your annuity starting date, as stated in the applicable rate schedule, plus 1 percent. Thereafter the rate will change annually, but only if the Moody's Corporate Bond Yield Average for the calendar month ending two months before the anniversary of your loan differs from your current rate by at least a half percent. If the latest average differs by less, your interest rate will remain the same for the next year.

Generally, you have one to five years to repay your loan. However, if you use the loan solely to purchase your primary residence, you can take up to ten years to repay. In addition, for loans from the ERISA TDA plan, your spouse must consent in writing to your request for a plan loan if you are married.

During a period of qualified military service, your loan payments may be suspended.

There are no loan provisions available with Fidelity. Contact TIAA-CREF if you have questions about the loan program.

Payment Of Benefits

You may choose from among several types of income options when you retire or terminate employment. The Campus or JPL Benefits Office and the individual TDA investment companies have more detailed information about your payment options. The rules of each individual

TDA may vary slightly, but in general they each offer the following payment options:

- **Lump Sum** — you will be paid the entire balance of your account in one lump sum payment.
- **Installment Payments** — you may receive payments over a specified number of years, not to exceed your life expectancy. In the event of your death, payments are continued to your Beneficiary for the remainder of the specified period.
- **Annuity Income** — you may choose from a variety of annuity income options, which pay benefits either over the remainder of your life, with optional guaranteed periods. You may also choose options that will continue all or a percentage of your benefits to your spouse or other Beneficiary in the event of your death.

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