UNIVERSITY OF CALIFORNIA

# Retirement Savings Program

Investment Review as of September 30, 2019

UC INVESTMENTS

# Savings Program Overview

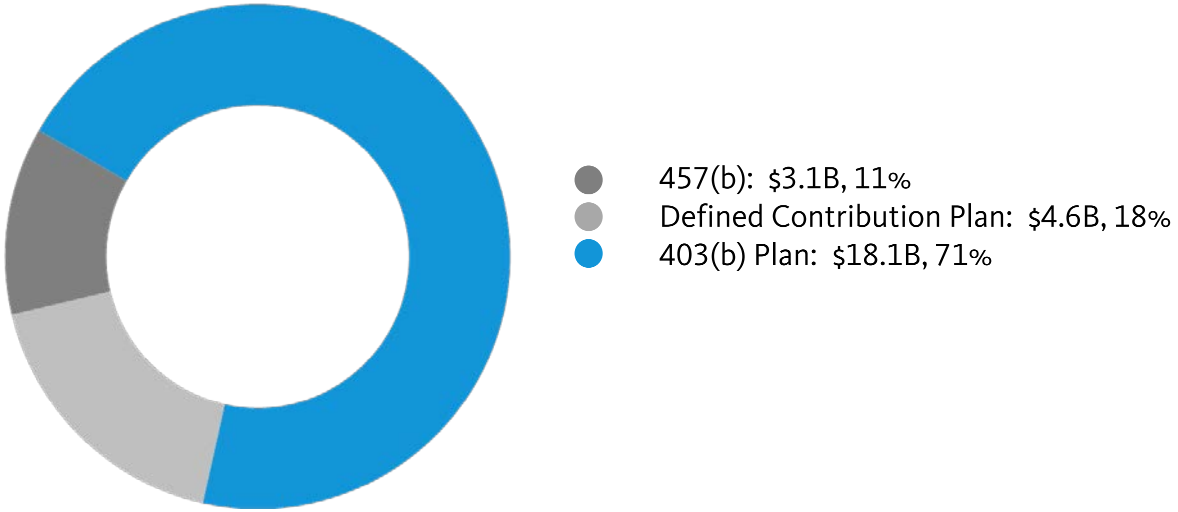
# UC Retirement Savings Program

**MISSION:** Deliver the best in class DC plan focused on participant outcomes through superior performance and cost management

## SAVINGS PROGRAM FACTS

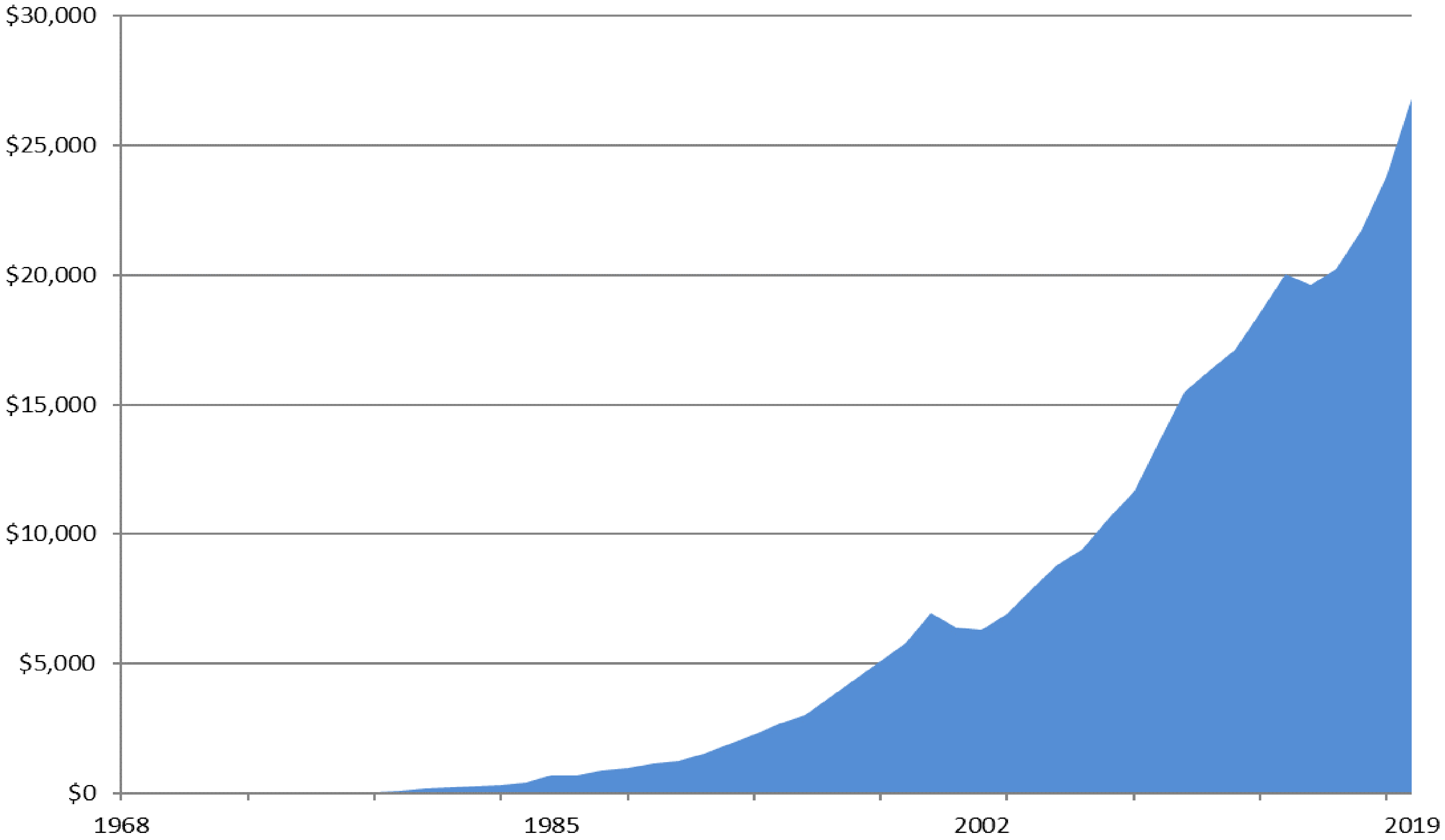
- Established in 1967
- Over 320,000 participants
- 3 Plans: 403(b), 457(b), DC Plan
- 2nd largest public DC plan in the US
- Largest 403(b) plan in the US
- Target Date Fund (Pathway) default since 2014
- $10 billion in Target Date Funds

## $25.8 BILLION ACROSS 3 PLANS



# UC Retirement Savings Program

## UCRSP ASSETS 1967 – 2019




### 5 YEAR EVOLUTION

**2018**

**3rd Party manager for Pathway**

**2017**

**White labeled Funds**

**Moved to Institutional Vehicles**

**2015**

**Reduced funds from 64 to 16**

**2014**

**Pathway becomes Default**

# Investment Options at a Glance

## TARGET DATE FUNDS - $10.0 billion
UC Pathway Funds

| | | |
|---|---|---|
| UC Pathway Income Fund<br>UC Pathway Fund 2015<br>UC Pathway Fund 2020<br>UC Pathway Fund 2025 | UC Pathway Fund 2030<br>UC Pathway Fund 2035<br>UC Pathway Fund 2040<br>UC Pathway Fund 2045 | UC Pathway Fund 2050<br>UC Pathway Fund 2055<br>UC Pathway Fund 2060 |

## CORE FUNDS - $14.1 billion
Bond and Stock Investments

| **Bond Investments** | **Domestic Stock** | **Foreign Stock** |
|---|---|---|
| *Short-Term*<br>UC Savings Fund | *Large Cap*<br>UC Growth Company Fund | *Developed Markets*<br>UC International Equity Index Fund<br>UC Diversified International Fund |
| *Intermediate-Term*<br>UC Bond Fund | *Small Cap*<br>UC Domestic Small Cap Equity Fund | *Emerging Markets*<br>UC Emerging Markets Equity Fund |
| *Inflation-Protected*<br>UC Short Term TIPS Fund<br>UC TIPS Fund | *Broad Cap*<br>UC Domestic Equity Index Fund | Specialty Stock<br>UC Real Estate Fund<br>UC Social Equity Fund |

## BROKERAGE WINDOW - $1.7 billion
**Fidelity BROKERAGELINK®**

# Core Lineup Assets - Detail

## CORE FUNDS - $14,109

Bond and Stock Investments

**Bond Investments - $5,578**

*Short-Term*

UC Savings Fund - $3,943

*Intermediate-Term*

UC Bond Fund - $1,326

*Inflation-Protected*

UC Short Term TIPS Fund - $59

UC TIPS Fund - $250

**Domestic Stock - $6,537**

*Large Cap*

UC Growth Company Fund - $952

*Small Cap*

UC Domestic Small Cap Equity Fund - $478

*Broad Cap*

UC Domestic Equity Index Fund - $5,107

**Foreign/Global Stock - $1,297**

*Developed Markets*

UC International Equity Index Fund - $965

UC Diversified International Fund - $132

*Emerging Markets*

UC Emerging Markets Equity Fund - $200

**Specialty Stock - $697**

UC Real Estate Fund - $267

UC Social Equity Fund - $430

# Defined Contribution Team

**Head of Defined Contribution**

## Marco Merz, CFA

- Joined University of California in 2016
- 10 year career at BlackRock
- Most recently Senior Strategist for Defined Contribution
- Focus on Target Date Fund & Core lineup implementation
- Frequent speaker at DC Industry conferences including P&I, II and IMCA

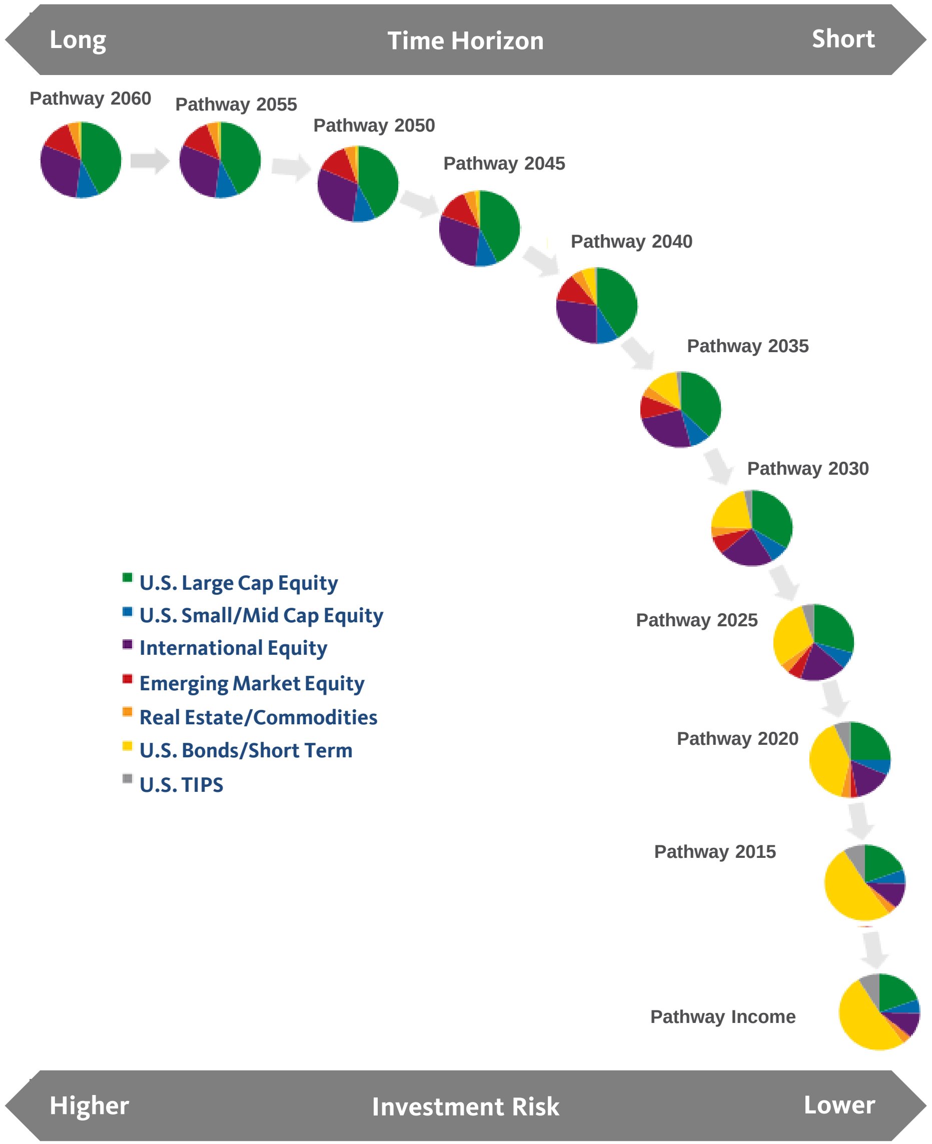
**Chief Operating Officer**

## Arthur Guimaraes, CPA, CBV

- Joined University of California in 2014
- Led UC glide path review and fund rationalization in 2015
- 10 year career in pension management in the US and Canada
- Most recently, Vice President, Alberta Investment Management Co.
- Previously, senior member of Group Savings & Retirement team at Manulife

# Target Date Fund - Pathway

# Pathway our Target Date Fund



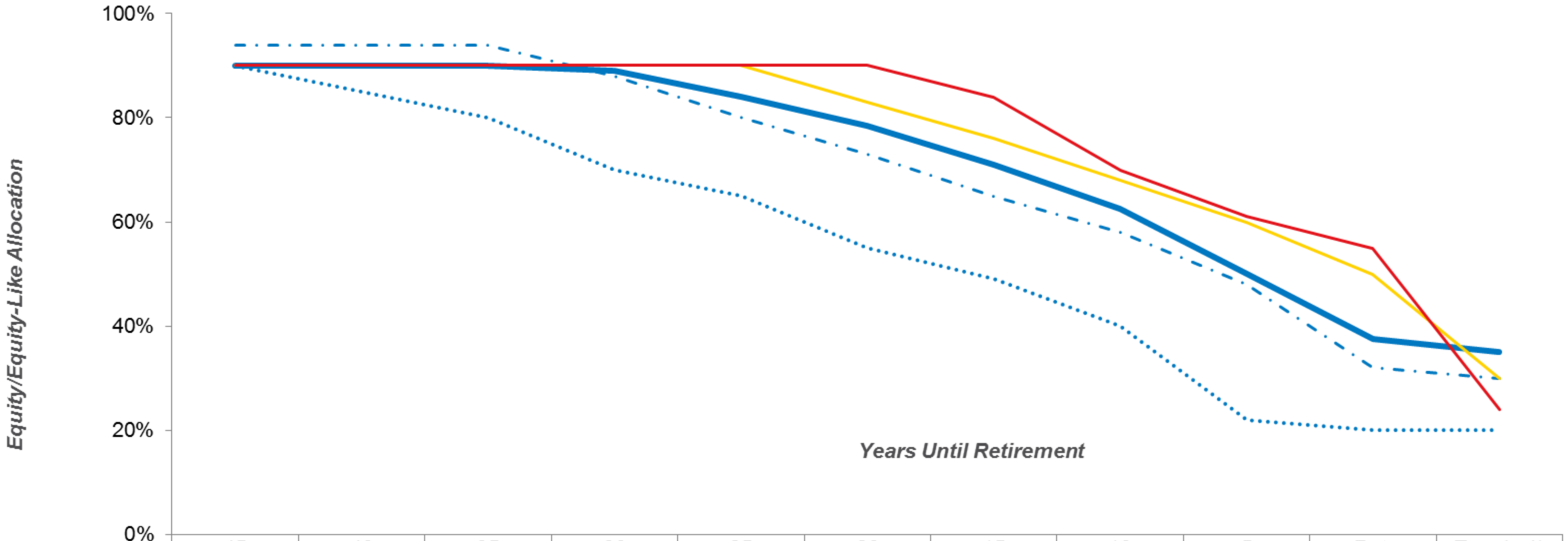

## Pathway Key Features

- An **equity landing point of 35%** with static allocations at and through retirement
- **Focus on diversification** with **broad asset class** exposures
- Utilizes a **strategic glidepath** to help mitigate the risks associated with market timing

## Key Benefits for Participants

- Constructed to **navigate the major sources of uncertainty** participants face
- Seeks to reduce volatility in an effort to keep participants **saving and investing across market cycles**
- **Continuous research** to anticipate, assess and adapt ahead of evolving conditions to help meet participant needs **now and in the future**

# Pathway – Glidepath Evolution vs. other Providers




| | 45 | 40 | 35 | 30 | 25 | 20 | 15 | 10 | 5 | Ret. | Terminal* |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Pathway Today | 90% | 90% | 90% | 89% | 84% | 79% | 71% | 63% | 50% | 38% | 35% |
| Pathway 2016 | 94% | 94% | 94% | 88% | 80% | 73% | 65% | 58% | 48% | 32% | 30% |
| Pathway 2014 | 90% | 85% | 80% | 70% | 65% | 55% | 49% | 40% | 22% | 20% | 20% |
| Vanguard | 90% | 90% | 90% | 90% | 90% | 83% | 76% | 68% | 60% | 50% | 30% |
| Fidelity | 90% | 90% | 90% | 90% | 90% | 90% | 84% | 70% | 61% | 55% | 24% |

# Pathway Performance - Quarter and 1 Year

## Q3 2019 performance relative to policy benchmarks

**Net of fee returns (%)**

| | Pathway Income | Pathway 2015 | Pathway 2020 | Pathway 2025 | Pathway 2030 | Pathway 2035 | Pathway 2040 | Pathway 2045 | Pathway 2050 | Pathway 2055 | Pathway 2060 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Fund Return | 1.22 | 1.23 | 1.28 | 1.22 | 1.09 | 0.91 | 0.73 | 0.56 | 0.50 | 0.50 | 0.50 |
| Policy Benchmark Return | 1.17 | 1.15 | 1.23 | 1.22 | 1.14 | 0.97 | 0.78 | 0.59 | 0.53 | 0.53 | 0.53 |
| Value Added | **0.05** | **0.05** | **0.05** | **0.00** | **-0.05** | **-0.06** | **-0.05** | **-0.03** | **-0.03** | **-0.03** | **-0.03** |

## One year performance relative to policy benchmarks

**Net of fee returns (%) - 9/30/2018-9/30/2019**

| | Pathway Income | Pathway 2015 | Pathway 2020 | Pathway 2025 | Pathway 2030 | Pathway 2035 | Pathway 2040 | Pathway 2045 | Pathway 2050 | Pathway 2055 | Pathway 2060 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Fund Return | 5.03 | 5.17 | 5.50 | 5.24 | 4.74 | 4.04 | 3.32 | 2.58 | 2.31 | 2.25 | 2.25 |
| Policy Benchmark Return | 5.16 | 5.28 | 5.55 | 5.40 | 4.99 | 4.29 | 3.56 | 2.80 | 2.53 | 2.47 | 2.47 |
| Value Added | **-0.13** | **-0.11** | **-0.05** | **-0.14** | **-0.25** | **-0.25** | **-0.24** | **-0.22** | **-0.22** | **-0.22** | **-0.22** |

# Pathway Performance – 3 Year and 5 Year

## 3 year performance relative to policy benchmarks

**Net of fee returns (%)**

| | Pathway Income | Pathway 2015 | Pathway 2020 | Pathway 2025 | Pathway 2030 | Pathway 2035 | Pathway 2040 | Pathway 2045 | Pathway 2050 | Pathway 2055 | Pathway 2060 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Fund Return | 4.94 | 4.99 | 6.17 | 6.79 | 7.37 | 7.83 | 8.27 | 8.73 | 9.24 | 9.44 | 9.43 |
| Policy Benchmark Return | 4.89 | 4.96 | 6.09 | 6.79 | 7.41 | 7.88 | 8.36 | 8.83 | 9.35 | 9.50 | 9.50 |
| Value Added | **0.05** | **0.03** | **0.08** | **0.00** | **-0.04** | **-0.05** | **-0.09** | **-0.10** | **-0.11** | **-0.06** | **-0.07** |

## 5 year performance relative to policy benchmarks

**Net of fee returns (%)**

| | Pathway Income | Pathway 2015 | Pathway 2020 | Pathway 2025 | Pathway 2030 | Pathway 2035 | Pathway 2040 | Pathway 2045 | Pathway 2050 | Pathway 2055 | Pathway 2060 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Fund Return | 3.93 | 4.03 | 5.16 | 5.49 | 5.83 | 6.08 | 6.33 | 6.56 | 6.83 | 6.99 | 6.99 |
| Policy Benchmark Return | 3.78 | 3.89 | 5.01 | 5.41 | 5.77 | 6.04 | 6.30 | 6.55 | 6.83 | 6.95 | 6.96 |
| Value Added | **0.15** | **0.14** | **0.15** | **0.08** | **0.06** | **0.04** | **0.03** | **0.01** | **0.00** | **0.04** | **0.03** |

# Detailed Performance

# Core Lineup Performance - Details

| | | | | | Annualized Total Return (%) | | |
|---|---|---|---|---|---|---|---|
| **US Large Equity** | **Market Value ($M)** | **% of Program** | **3 Months** | **One Year** | **Three Year** | **Five Year** | **Ten Year** |
| UC Domestic Equity Index Fund | $5,107 | 19.78% | 1.27 | 3.35 | 13.22 | 10.66 | 13.20 |
| Russell 3000 TF Index | | | 1.22 | 3.05 | 13.01 | 10.49 | 13.07 |
| *Value Added* | | | *0.05* | *0.30* | *0.21* | *0.17* | *0.13* |
| UC Social Index Fund | $430 | 1.66% | 1.86 | 5.38 | 14.68 | 11.69 | 13.80 |
| Spliced Social Index | | | 1.87 | 5.35 | 14.74 | 11.77 | 13.93 |
| *Value Added* | | | *-0.01* | *0.03* | *-0.06* | *-0.08* | *-0.13* |
| **US Small/Mid Cap Equity** | | | | | | | |
| UC Domestic Small Cap Index Fund | $478 | 1.85% | -2.15 | -8.48 | 7.83 | 7.57 | 11.85 |
| Small Cap Spliced Index | | | -2.39 | -8.89 | 7.65 | 7.43 | 11.74 |
| *Value Added* | | | *0.24* | *0.41* | *0.18* | *0.14* | *0.11* |
| **Global/World ex-US Equity** | | | | | | | |
| UC International Equity Index Fund | $943 | 3.65% | -0.73 | -0.96 | 6.95 | 3.35 | 5.04 |
| MSCI World ex-US TF Index | | | -0.86 | -1.49 | 6.53 | 3.00 | 4.68 |
| *Value Added* | | | *0.13* | *0.53* | *0.42* | *0.35* | *0.36* |

# Core Lineup Performance - Details

| | | | Annualized Total Return (%) | | | | |
|---|---|---|---|---|---|---|---|
| **Capital Preservation** | **Market Value ($M)** | **% of Program** | **3 Months** | **One Year** | **Three Year** | **Five Year** | **Ten Year** |
| UC Savings Fund | $3,943 | 15.27% | 0.44 | 1.75 | 1.53 | 1.40 | 1.48 |
| Two-Year U.S. Treasury Notes Income Return | | | 0.47 | 2.37 | 1.87 | 1.39 | 0.91 |
| *Value Added* | | | *-0.03* | *-0.62* | *-0.34* | *0.01* | *0.57* |
| **Inflation Sensitive** | | | | | | | |
| UC Short Term TIPS Fund | $59 | 0.23% | 0.47 | 2.77 | 1.75 | 1.26 | |
| Barclays 1-3 Year U.S. TIPS Index | | | 0.23 | 2.76 | 1.52 | 0.95 | |
| *Value Added* | | | *0.24* | *0.01* | *0.23* | *0.31* | - |
| UC TIPS Fund | $250 | 0.97% | 1.34 | 7.00 | 2.54 | 2.70 | 3.73 |
| Barclays US TIPS Index | | | 1.35 | 7.13 | 2.21 | 2.45 | 3.46 |
| *Value Added* | | | *-0.01* | *-0.13* | *0.33* | *0.25* | *0.27* |
| **Diversified Fixed Income** | | | | | | | |
| UC Bond Fund | $1,326 | 5.14% | 2.22 | 10.41 | 3.24 | 3.64 | 4.15 |
| Barclays Aggregate Fixed Income Benchmark | | | 2.27 | 10.30 | 2.92 | 3.38 | 3.75 |
| *Value Added* | | | *-0.05* | *0.11* | *0.32* | *0.26* | *0.40* |
| **New Large Equity** | | | | | | | |
| UC Growth Company Fund | $952 | 3.69% | -1.25 | -4.04 | 17.53 | 14.27 | 16.14 |
| Russell 3000 Growth | | | 1.10 | 2.70 | 16.36 | 13.07 | 14.74 |
| *Value Added* | | | *-2.35* | *-6.74* | *1.17* | *1.20* | *1.40* |
| **World ex-US Equity** | | | | | | | |
| UC Diversified Intl. Fund | $132 | 0.51% | 0.31 | 1.39 | 6.59 | 4.58 | 6.07 |
| MSCI EAFE | | | -1.07 | -1.34 | 6.55 | 3.39 | 5.03 |
| *Value Added* | | | *1.38* | *2.73* | *0.04* | *1.19* | *1.04* |
| UC Emerging Markets Fund | $200 | 0.78% | -3.94 | -2.15 | 5.45 | 2.16 | 3.63 |
| MSCI Emerging Markets Index | | | -4.25 | -2.02 | 5.97 | 2.33 | 3.37 |
| *Value Added* | | | *0.31* | *-0.13* | *-0.52* | *-0.17* | *0.26* |
| **Real Estate** | | | | | | | |
| UC Real Estate Fund | $267 | 1.03% | 7.79 | 18.67 | 6.71 | 9.72 | 12.78 |
| REIT Spliced Index | | | 7.38 | 16.84 | 6.23 | 9.48 | 12.67 |
| *Value Added* | | | *0.41* | *1.83* | *0.48* | *0.24* | *0.11* |

# Target Date Fund Performance - Details

| | | | | | Annualized Total Return (%) | | |
|---|---|---|---|---|---|---|---|
| **Target Date Funds** | **Market Value ($M)** | **% of Program** | **3 Months** | **One Year** | **Three Year** | **Five Year** | **Ten Year** |
| UC Pathway Income Fund | $1,032 | 4.00% | 1.22 | 5.03 | 4.94 | 3.93 | 3.90 |
| Policy Benchmark | | | 1.17 | 5.16 | 4.89 | 3.78 | 3.53 |
| *Value Added* | | | 0.05 | -0.13 | 0.05 | 0.15 | 0.37 |
| UC Pathway Fund 2015 | $745 | 2.88% | 1.23 | 5.17 | 4.99 | 4.03 | 4.63 |
| Policy Benchmark | | | 1.17 | 5.28 | 4.96 | 3.89 | 4.37 |
| *Value Added* | | | 0.06 | -0.11 | 0.03 | 0.14 | 0.26 |
| UC Pathway Fund 2020 | $1,581 | 6.12% | 1.29 | 5.50 | 6.17 | 5.16 | 5.64 |
| Policy Benchmark | | | 1.23 | 5.55 | 6.09 | 5.01 | 5.47 |
| *Value Added* | | | 0.06 | -0.05 | 0.08 | 0.15 | 0.17 |
| UC Pathway Fund 2025 | $1,562 | 6.05% | 1.22 | 5.24 | 6.79 | 5.49 | 6.07 |
| Policy Benchmark | | | 1.22 | 5.40 | 6.79 | 5.41 | 5.92 |
| *Value Added* | | | 0.00 | -0.16 | 0.00 | 0.08 | 0.15 |
| UC Pathway Fund 2030 | $1,491 | 5.78% | 1.10 | 4.74 | 7.37 | 5.83 | 6.42 |
| Policy Benchmark | | | 1.14 | 4.99 | 7.41 | 5.77 | 6.30 |
| *Value Added* | | | -0.04 | -0.25 | -0.04 | 0.06 | 0.12 |
| UC Pathway Fund 2035 | $1,043 | 4.04% | 0.91 | 4.04 | 7.83 | 6.08 | 6.77 |
| Policy Benchmark | | | 0.97 | 4.29 | 7.88 | 6.04 | 6.64 |
| *Value Added* | | | -0.06 | -0.25 | -0.05 | 0.04 | 0.13 |

# Target Date Fund Performance - Details

| | | | Annualized Total Return (%) | | | | |
|---|---|---|---|---|---|---|---|
| **Target Date Funds** | **Market Value ($M)** | **% of Program** | **3 Months** | **One Year** | **Three Year** | **Five Year** | **Ten Year** |
| UC Pathway Fund 2040 | $913 | 3.53% | 0.74 | 3.32 | 8.27 | 6.33 | 7.10 |
| Policy Benchmark | | | 0.78 | 3.56 | 8.36 | 6.30 | 6.99 |
| *Value Added* | | | *-0.04* | *-0.24* | *-0.09* | *0.03* | *0.11* |
| UC Pathway Fund 2045 | $656 | 2.54% | 0.56 | 2.58 | 8.73 | 6.56 | 7.47 |
| Policy Benchmark | | | 0.59 | 2.80 | 8.83 | 6.55 | 7.34 |
| *Value Added* | | | *-0.03* | *-0.22* | *-0.10* | *0.01* | *0.13* |
| UC Pathway Fund 2050 | $520 | 2.02% | 0.51 | 2.31 | 9.24 | 6.83 | 7.88 |
| Policy Benchmark | | | 0.53 | 2.53 | 9.35 | 6.83 | 7.77 |
| *Value Added* | | | *-0.02* | *-0.22* | *-0.11* | *0.00* | *0.11* |
| UC Pathway Fund 2055 | $251 | 0.97% | 0.51 | 2.25 | 9.44 | 6.99 | 8.24 |
| Policy Benchmark | | | 0.53 | 2.47 | 9.50 | 6.95 | 8.10 |
| *Value Added* | | | *-0.02* | *-0.22* | *-0.06* | *0.04* | *0.14* |
| UC Pathway Fund 2060 | $246 | 0.95% | 0.51 | 2.25 | 9.43 | 6.99 | 8.50 |
| Policy Benchmark | | | 0.53 | 2.47 | 9.50 | 6.96 | 8.36 |
| *Value Added* | | | *-0.02* | *-0.22* | *-0.07* | *0.03* | *0.14* |

# 5 Year Review

# Changes over the last 5 Years

**Plan Enhancement Initiatives**

- Streamlined fund choices from 74 to 13
- Reduced average management fee from 14 bps to 6 bps
- Saved participants $40 million over 5 years

| | AUM ex Brokerage ($bln) | Number of Funds | Management Fee $ (mln) | Management Fee (bps) |
|---|---|---|---|---|
| 2015 | $18.9 | 74 | $25.9 | 14 |
| 2016 | $18.9 | 16 | $18.2 | 10 |
| 2017 | $20.9 | 15 | $20.8 | 10 |
| **2018** | **$22.6** | **13** | **$13.0** | **6** |

# Plan Design Enhancements

Top 30 Investment Consultants suggest enhancements in 2018
that we incorporated in this fiscal year

| | |
|---|---|
| **Review Target Date Fund** | Reviewed Pathway and hired 3rd party via RFP |
| **Evaluate Investment Fees** | Completed fee analysis and reduced fees by over $6 million annually by moving to institutional fund vehicles |
| **Evaluate How Plan Costs Are Paid** | Updated approach to management fees |
| **Evaluate Administrative Fees** | Moved to flat per participant fee in line with consultant recommendations |
| **Simplify Core Lineup** | White labeled 3 funds for a more intuitive naming convention and eliminated 2 redundant investments |

# Optimal Investment Structure

UC Lineup now follows industry best practice

A Active P Passive H Hybrid

| | Tier 1: Default Option | Tier 2: Core Lineup |
|---|---|---|
| **UC** | Custom Target Date Fund H | Capital Preservation: 1 Fund A<br>Fixed Income: 1 Fund A<br>Equity: 8 Funds A A A P P P P P<br>Inflation Protection: 2 Funds P P |
| **Optimal** | Custom Target Date Fund H | Capital Preservation: 1 Fund A<br>Fixed Income: 2 Funds A P<br>Equity: 6 Funds A A A P P P<br>Inflation Protection: 1 Fund P |

# Fiscal Year 2018 / 2019 Project Plan

| | Overview of Changes | Implementation Date |
|---|---|---|
| I. | Transition 3 Vanguard mutual funds to separate accounts at SSgA | 9/30/2018 |
| II. | Implement High Yield active manager in Pathway | 3/31/2019 |
| III. | Transition Diversified International Fund to Class 2 Fund | 6/30/2019 |
| **IV.** | **Transition Pathway 2015 vintage into Pathway Income** | **12/31/2019** |
| **V.** | **Launch Pathway 2065** | **12/31/2019** |

**Lineup changes will:**

- Reduce fees by over $1.1 million annually
- Increase expected return through active implementation of Pathway's High Yield component
- Streamline line up by consolidating Pathway 2015 into Pathway Income which will have same allocations on 12/31/19
- Maintain existing Pathway vintage structure by launching Pathway 2065