NEBRASKA PUBLIC EMPLOYEES RETIREMENT SYSTEMS

INVESTMENT REPORT

FOR THE PLAN YEAR ENDING DECEMBER 31, 2018

CASH BALANCE | DEFINED CONTRIBUTION | DCP | DROP
DC, DCP, & DROP PLANS

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PLAN DESCRIPTIONS

DEFINED CONTRIBUTION

Prior to 2003, State and County employees were required to participate in a Defined Contribution (DC) retirement plan. In a DC plan, employee and employer contributions are paid into an individual account for each member. The contributions are then invested in a variety of investment choices selected by the member. The returns on the investment (which may be positive or negative) are credited to the individual’s account.

The Cash Balance benefit was created by the Unicameral and implemented January 1, 2003. At that time, Defined Contribution participants were given the option to switch to Cash Balance and the Defined Contribution plan was closed to new membership. The Unicameral offered Defined Contribution participants a second and third opportunity to switch to Cash Balance in 2007 and 2012. Information on Cash Balance can be found in section two of this report.

State members contribute 4.8% of gross compensation and the employer matches these contributions at 156%. County members contribute 4.5% and the employer matches at 150%. All contributions are pre-tax. Vesting occurs after three years of plan participation, at which time members are eligible to receive both their contributions and the employer match upon ceasing employment.

Members of Defined Contribution make investment choices for both the employee and employer contributions, choosing from 13 investment options profiled in this report. There is no guaranteed benefit or rate of return. Account balances will increase or decrease based on the investments selected and market performance. Members may change investments as desired, subject to excessive trading rules.

The managers for each of the 13 investment funds are selected, monitored and terminated, when necessary, by the Nebraska Investment Council.

Members may take distribution of their account after ceasing employment. Other qualifying events for distribution are death or disability. Members who cease employment on or after age 55 are considered “retired.” Members who cease employment prior to age 55 are considered “terminated.” Distributions are subject to State and Federal income taxes and “Terminated” members may also incur additional early withdrawal penalties if they take distributions prior to age 59½. Distribution options include lump sum or systematic withdrawals, monthly annuities, or a combination of these choices. In addition, members may defer distributions up to age 70½ or rollover funds to another tax sheltered retirement plan.

DEFINED CONTRIBUTION OPTIONS

- **DEFERRAL** – up to age 70½. Account will increase or decrease based on investment choices and market performance.

- **ANNUITY** – monthly payments (generally for the lifetime of the member) with an optional 2.5% annual cost-of-living adjustment.

- **LUMP SUM** – payment issued directly to the member.

- **SYSTEMATIC WITHDRAWAL** – payments issued to the member at a set frequency and dollar amount.

- **ROLLOVER** – to a Traditional or Roth IRA, or another qualified retirement plan.

- **COMBINATION** – of the above options. Defined Contribution participants are not subject to the one-time distribution rules.
There are currently two deferred compensation plans, the State of Nebraska Deferred Compensation Plan (DCP) and the Mass Mutual DCP. The State DCP is currently open to new members and contributions.

**STATE DCP**
The State DCP is a voluntary, supplemental retirement plan for State, Judges, and State Patrol employees. County employees may participate in the State plan if their county does not offer a deferred compensation plan.

Any individual employed on a permanent or temporary basis, full-time or part-time, may participate. Participants defer a pre-tax portion of their salaries and there are no employer matching contributions. Members may change contribution amounts or cease contributing at any time. Plan participants make their own investment choices from the same 13 funds offered in the State and County Defined Contribution plan. There is no guaranteed benefit or rate of return. Account balances will increase or decrease based on the investments selected and market performance.

Members may take distributions after ceasing employment. All distributions are subject to State and Federal income taxes. Distribution options include lump sum or systematic withdrawals, monthly annuities, or a combination of these choices. In addition, members may defer distributions up to age 70½, or rollover funds to another tax sheltered retirement plan, including a Traditional or ROTH IRA.

For more information, please refer to the Deferred Compensation pages in the resources section of this report.

**MASS MUTUAL DCP**
The original State Deferred Compensation Plan was established in 1976 and provided by the Hartford Life Insurance Company. In 1997, DCP plan administration was assumed by NPERS and the Hartford plan was closed to new members and contributions. Individuals participating prior to this date could retain their existing Hartford accounts. In 2013, Massachusetts Mutual Life Insurance (Mass Mutual) acquired the Hartford’s Retirement Plans Group. Individuals with Mass Mutual DCP accounts utilize the investment options provided by Mass Mutual. Investment information and performance for these accounts is also provided by Mass Mutual.

**DEFERRED RETIREMENT OPTION PLAN (DROP)**
The State Patrol Deferred Retirement Option Plan (DROP) was created with LB 324 by the 2007 Legislature, and was effective September 1, 2008. The DROP feature of the State Patrol Plan is voluntary and provides a way for Tier I members to receive a lump-sum amount at retirement in addition to their monthly retirement benefit.

To participate in DROP, members must be currently employed with at least 25 years of service, be age 50 up to age 60, and agree to cease employment within five years (or any time prior to five years) or upon turning age 60, whichever occurs first. Upon entering DROP, the retirement benefit is calculated and both the member and employer (State) monthly contributions to the State Patrol Plan cease. The member’s monthly benefits are “frozen” and not adjusted for any future salary increases, benefit improvements passed by law, or cost-of-living (COLA) adjustments. Members may not “opt out” and return to “active” status.

During DROP, members continue to work and receive pay while monthly retirement benefits are deposited pre-tax into the DROP accounts. Members make their own investment choices using the 13 investment funds offered to State of Nebraska employees. As in the Defined Contribution option (DC) and the Deferred Compensation Plan (DCP), DROP members assume full responsibility for any market gains or losses.

DROP ends when the members cease employment and “retire in fact.” Monthly benefits are then issued directly to members, who must choose either a lump sum distribution of the entire DROP account, a rollover distribution to an IRA or other qualified plan, or a combination of the two choices.
EXCESSIVE TRADING POLICY

Members of the Defined Contribution (DC), Deferred Compensation Plan (DCP), and Deferred Retirement Option Plan (DROP), are subject to the Excessive Trading Policy of the Public Employees Retirement Board (PERB). This policy limits the number of transfers permitted within a participant’s account. Excessive trading by one or many participants can have a detrimental effect on other participants. In order to protect plan sponsors and participants, as well as meet regulatory guidelines and Mutual Fund Partner requirements, the PERB implemented this policy in January, 2011, to address this potential problem. This policy may change from time to time.

Only transactions that create the potential for market timing and excessive trading abuses will be subject to monitoring. Accordingly, only participant-initiated Exchange Purchases and Exchange Redemptions are monitored. This would include (but not be limited to) purchases and redemptions made as a result of a non-systematic reallocation or rebalancing transaction. This policy is not affected by regular allocations of contributions or withdrawals.

An Exchange Redemption executed within sixty (60) days of an Exchange Purchase will result in monitoring of the participant’s transactions for the Monitoring Period. A rolling sixty-day period begins immediately following a Round Trip (an Exchange Purchase followed by an Exchange Redemption).

A written notice to the participant will be mailed after identifying an Exchange Purchase during the Monitoring Period. This notice will inform the participant that if the participant executes an Exchange Redemption during the remainder of the Monitoring Period, the participant will be subject to the trading restrictions.

Where a participant executes a Round Trip during the Monitoring Period, the participant will be prevented from initiating subsequent Exchange Purchases in that fund for a sixty-day period following the Exchange Redemption that violated the policy.

All exchanges in other funds during the Purchase Restriction Period must be done via the U.S. Mail. This would exclude the use of phone, voice response, fax, web/internet, and hand-delivered means of executing trades.

The participant will be notified in writing upon the imposition of these trading restrictions.

Participant trading privileges will be restored automatically upon the expiration of the Purchase Restrictions Period. Please note that our Mutual Fund Partners may have excessive trading policies that conflict with, or are more restrictive than, PERB’s Excessive Trading Policy. In the event there is a violation of such Mutual Fund Partner policy, additional restrictions may apply, as directed by the Mutual Fund Partner.
## RATE OF RETURN

**TIME-WEIGHTED RATES OF RETURN**

**UPDATED DECEMBER 31, 2018**

<table>
<thead>
<tr>
<th>Time Period</th>
<th>Money Market Fund YTD</th>
<th>Stable Value Fund YTD</th>
<th>Bond Market Index Fund YTD</th>
<th>S &amp; P Stock Index Fund YTD</th>
<th>Large Company Growth Stock Index Fund YTD</th>
<th>Large Company Value Stock Index Fund YTD</th>
</tr>
</thead>
<tbody>
<tr>
<td>YTD</td>
<td>2.00%</td>
<td>2.04%</td>
<td>0.01%</td>
<td>-4.38%</td>
<td>-1.71%</td>
<td>-8.18%</td>
</tr>
<tr>
<td>2017</td>
<td>1.02%</td>
<td>1.80%</td>
<td>3.56%</td>
<td>21.83%</td>
<td>30.05%</td>
<td>13.82%</td>
</tr>
<tr>
<td>2016</td>
<td>0.52%</td>
<td>1.68%</td>
<td>2.61%</td>
<td>11.92%</td>
<td>7.06%</td>
<td>17.21%</td>
</tr>
<tr>
<td>2015</td>
<td>0.13%</td>
<td>1.56%</td>
<td>0.55%</td>
<td>1.45%</td>
<td>5.75%</td>
<td>-3.64%</td>
</tr>
<tr>
<td>2014</td>
<td>0.07%</td>
<td>1.54%</td>
<td>6.17%</td>
<td>13.74%</td>
<td>13.10%</td>
<td>13.49%</td>
</tr>
<tr>
<td>1 Year</td>
<td>1.02%</td>
<td>1.80%</td>
<td>3.56%</td>
<td>21.83%</td>
<td>30.05%</td>
<td>13.82%</td>
</tr>
<tr>
<td>3 Year</td>
<td>0.56%</td>
<td>1.68%</td>
<td>2.24%</td>
<td>11.42%</td>
<td>13.77%</td>
<td>8.73%</td>
</tr>
<tr>
<td>5 Year</td>
<td>0.37%</td>
<td>1.66%</td>
<td>2.15%</td>
<td>15.82%</td>
<td>17.31%</td>
<td>14.09%</td>
</tr>
<tr>
<td>10 Year</td>
<td>0.53%</td>
<td>2.50%</td>
<td>4.06%</td>
<td>8.59%</td>
<td>10.08%</td>
<td>7.20%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Time Period</th>
<th>Small Company Stock Fund YTD</th>
<th>International Stock Index Fund YTD</th>
<th>Conservative Premixed Funds YTD</th>
<th>Moderate Premixed Funds YTD</th>
<th>Aggressive Premixed Fund YTD</th>
<th>Investor Select Fund YTD</th>
</tr>
</thead>
<tbody>
<tr>
<td>YTD</td>
<td>-13.13%</td>
<td>-14.00%</td>
<td>-1.61%</td>
<td>-3.69%</td>
<td>-5.56%</td>
<td>-5.79%</td>
</tr>
<tr>
<td>2017</td>
<td>11.52%</td>
<td>27.45%</td>
<td>7.91%</td>
<td>12.43%</td>
<td>16.72%</td>
<td>15.44%</td>
</tr>
<tr>
<td>2016</td>
<td>25.53%</td>
<td>5.19%</td>
<td>5.12%</td>
<td>7.79%</td>
<td>10.13%</td>
<td>7.61%</td>
</tr>
<tr>
<td>2015</td>
<td>-3.29%</td>
<td>-5.80%</td>
<td>0.10%</td>
<td>-0.08%</td>
<td>-0.33%</td>
<td>-0.44%</td>
</tr>
<tr>
<td>2014</td>
<td>4.44%</td>
<td>-4.38%</td>
<td>5.92%</td>
<td>7.42%</td>
<td>8.01%</td>
<td>8.01%</td>
</tr>
<tr>
<td>1 Year</td>
<td>-13.13%</td>
<td>-14.00%</td>
<td>-1.61%</td>
<td>-3.69%</td>
<td>-5.56%</td>
<td>-5.79%</td>
</tr>
<tr>
<td>3 Year</td>
<td>6.17%</td>
<td>4.86%</td>
<td>3.73%</td>
<td>5.29%</td>
<td>6.68%</td>
<td>5.38%</td>
</tr>
<tr>
<td>5 Year</td>
<td>3.87%</td>
<td>0.76%</td>
<td>3.43%</td>
<td>4.61%</td>
<td>5.50%</td>
<td>4.71%</td>
</tr>
<tr>
<td>10 Year</td>
<td>13.39%</td>
<td>6.54%</td>
<td>5.40%</td>
<td>8.07%</td>
<td>10.16%</td>
<td>9.32%</td>
</tr>
</tbody>
</table>

### MAJOR INDICES:

<table>
<thead>
<tr>
<th>Index</th>
<th>Money Market Fund</th>
<th>Stable Value Fund</th>
<th>Bond Market Index Fund</th>
<th>S &amp; P Stock Index Fund</th>
<th>Large Company Growth Stock Index Fund</th>
<th>Large Company Value Stock Index Fund</th>
</tr>
</thead>
<tbody>
<tr>
<td>YTD</td>
<td>-4.38%</td>
<td>-11.01%</td>
<td>-14.20%</td>
<td>0.01%</td>
<td>1.89%</td>
<td>1.91%</td>
</tr>
<tr>
<td>2017</td>
<td>21.83%</td>
<td>14.65%</td>
<td>27.19%</td>
<td>3.54%</td>
<td>0.87%</td>
<td>2.11%</td>
</tr>
<tr>
<td>2016</td>
<td>11.96%</td>
<td>21.31%</td>
<td>4.50%</td>
<td>2.65%</td>
<td>0.35%</td>
<td>2.04%</td>
</tr>
<tr>
<td>2015</td>
<td>1.38%</td>
<td>-4.41%</td>
<td>-5.66%</td>
<td>0.55%</td>
<td>0.07%</td>
<td>0.73%</td>
</tr>
<tr>
<td>2014</td>
<td>13.69%</td>
<td>4.89%</td>
<td>-3.87%</td>
<td>5.97%</td>
<td>0.05%</td>
<td>0.76%</td>
</tr>
<tr>
<td>1 Year</td>
<td>-4.38%</td>
<td>-11.01%</td>
<td>-14.20%</td>
<td>0.01%</td>
<td>1.89%</td>
<td>1.91%</td>
</tr>
<tr>
<td>3 Year</td>
<td>9.26%</td>
<td>7.36%</td>
<td>4.48%</td>
<td>2.06%</td>
<td>1.03%</td>
<td>2.03%</td>
</tr>
<tr>
<td>5 Year</td>
<td>8.49%</td>
<td>4.41%</td>
<td>0.68%</td>
<td>2.52%</td>
<td>0.64%</td>
<td>1.51%</td>
</tr>
<tr>
<td>10 Year</td>
<td>13.12%</td>
<td>11.97%</td>
<td>6.57%</td>
<td>3.48%</td>
<td>0.39%</td>
<td>1.80%</td>
</tr>
</tbody>
</table>

1. Returns are net of investment management fees.
2. The 1-, 3-, 5-, and 10-year rates of return are annualized rates of return of the funds through December 31, 2017.
4. Members who selected the Age-Based Fund option should check performance in the following manner: Members through age 39 use the Aggressive Premixed Fund; Members at age 40 through 59 use the Moderate Premixed Fund; and Members at age 60 and over should use the Conservative Premixed Fund.

MONEY MARKET FUND

INVESTMENT OBJECTIVE: The Money Market Fund seeks to maximize current income while preserving capital and liquidity through investing in a diversified portfolio of short-term securities. The Fund’s yield reflects short-term interest rates. Contributions to the Fund are invested in the State Street Short-Term Investment Fund.

INVESTMENT STYLE: Investments are managed conservatively by investing only in high quality short-term instruments such as U.S. government and agency obligations, commercial paper, repurchase agreements, bankers acceptances, certificates of deposit, time deposits and other fixed income investments.

PERFORMANCE THRU 12/31/18:

<table>
<thead>
<tr>
<th>Years</th>
<th>Fund*</th>
<th>3-Month US Treasury Bills</th>
</tr>
</thead>
<tbody>
<tr>
<td>One</td>
<td>2.0%</td>
<td>1.9%</td>
</tr>
<tr>
<td>Three</td>
<td>1.2%</td>
<td>1.0%</td>
</tr>
<tr>
<td>Five</td>
<td>0.7%</td>
<td>0.6%</td>
</tr>
</tbody>
</table>

*Time-weighted rates of return, net of investment fees.

QUALITY DIVERSIFICATION:

- A1+/P1 ........................................ 34.2% Aa ................................. 8.7%
- A1/P1 ........................................ 37.9 A ........................................ 17.8
- A2/P1 ......................................... 0.0 Other .................................... 1.4

SECTOR WEIGHTINGS:

- Yankee CDs .............................. 33.4% Bank Notes ......................... 3.6
- Commercial Paper ................. 29.4 CDs ................................. 3.5
- Time Deposit ......................... 13.5
- Repurchase Agreements .... 10.2
- US Treasury ......................... 6.4

CHARACTERISTICS:

- Portfolio Assets ............ $48 B
- Average Quality .......... A1/P1
- Average Maturity .............. 24 Days
- Current Yield .................. 2.6%

MANAGER:

State Street Global Advisors is a subsidiary of State Street Bank and Trust Company located in Boston, Massachusetts.

ANNUAL INVESTMENT FEE: Approximately 0.11%
STABLE VALUE FUND

INVESTMENT OBJECTIVE: The investment objective of the Stable Value Fund is to preserve principal value and earn a competitive yield. The Fund accommodates participant withdrawals without penalty.

INVESTMENT STYLE: The Stable Value Fund invests in Guaranteed Investment Contracts (GICs), Synthetic Investment Contracts (SICs), Separate Account Contracts (SACs) and other fixed income instruments. GICs are deposits with GIC issuers that feature repayment of deposits plus interest according to a predetermined schedule. SICs are portfolios of high quality fixed income instruments that are “wrapped” by issuers. SIC wraps are designed to accommodate qualified participant withdrawals. SAC is a contract under which the trust agrees to deposit cash and/or securities with an insurance company in order to create a fixed income portfolio.

PERFORMANCE THRU 12/31/18:

<table>
<thead>
<tr>
<th>Years</th>
<th>Fund*</th>
<th>Hueler Index</th>
</tr>
</thead>
<tbody>
<tr>
<td>One</td>
<td>2.0%</td>
<td>2.2%</td>
</tr>
<tr>
<td>Three</td>
<td>1.8%</td>
<td>2.0%</td>
</tr>
<tr>
<td>Five</td>
<td>1.7%</td>
<td>1.9%</td>
</tr>
</tbody>
</table>

* Time-weighted rates of return, net of investment fees.

COMPOSITION:

<table>
<thead>
<tr>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>SICs</td>
</tr>
<tr>
<td>SACs</td>
</tr>
<tr>
<td>Cash Equivalents</td>
</tr>
</tbody>
</table>

LARGEST HOLDINGS:

<table>
<thead>
<tr>
<th>Issuer</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Metropolitan Life</td>
<td>15.1%</td>
</tr>
<tr>
<td>Pacific Life</td>
<td>13.1%</td>
</tr>
<tr>
<td>State Street</td>
<td>11.3%</td>
</tr>
<tr>
<td>Prudential</td>
<td>10.5%</td>
</tr>
<tr>
<td>T. Rowe Price</td>
<td>8.5%</td>
</tr>
</tbody>
</table>

CHARACTERISTICS:

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Portfolio Assets</td>
<td>$15.9 B</td>
</tr>
<tr>
<td>Number of GIC/SIC Issuers</td>
<td>12</td>
</tr>
</tbody>
</table>

MANAGER:

T. Rowe Price Stable Asset Management, Inc., is a subsidiary of T. Rowe Price Associates located in Baltimore, Maryland.

ANNUAL INVESTMENT FEE: Approximately 0.2%
FUND DESCRIPTIONS

BOND MARKET INDEX FUND

INVESTMENT OBJECTIVE: The Bond Market Index Fund seeks to replicate the returns and characteristics of the Barclays U.S. Aggregate Index. Contributions to the Fund are invested in the BlackRock, Inc. Bond Index Fund.

INVESTMENT STYLE: The Fund employs a passive bond index strategy that is invested in a diversified portfolio and is representative of the broad U.S. bond market. Since complete replication of the Index is not economically practical, a stratified sampling approach is employed to build the Fund portfolio. The portfolio’s characteristics closely resemble those of the Index.

PERFORMANCE THRU 12/31/18:

<table>
<thead>
<tr>
<th>Years</th>
<th>Fund*</th>
<th>Barclays Aggregate Index</th>
</tr>
</thead>
<tbody>
<tr>
<td>One</td>
<td>0.0%</td>
<td>0.0%</td>
</tr>
<tr>
<td>Three</td>
<td>2.1%</td>
<td>2.1%</td>
</tr>
<tr>
<td>Five</td>
<td>2.6%</td>
<td>2.5%</td>
</tr>
</tbody>
</table>

* Time-weighted rates of return, net of investment fees.

QUALITY DIVERSIFICATION: AAA ............................................ 72.7% BBB ............................................. 13.5%
AA ............................................. 3.8
A ............................................. 10.0

SECTOR WEIGHTING:
Government .................................. 40.2%
Corporate Bonds .......................... 28.3
Mortgage-Backed ............................ 30.7
Cash ............................................. 0.3
Municipal ..................................... 0.6

CHARACTERISTICS: Portfolio Assets .......................... $36.0 B
Average Quality ............................. AA
Average Yield .................................. 3.2%
Effective Duration ........................... 5.62 years

MANAGER BlackRock, Inc., is located in New York, New York.

ANNUAL INVESTMENT FEE Approximately 0.05%
CONSERVATIVE PREMIXED FUND

INVESTMENT OBJECTIVE: Through a combination of 75% fixed income investments and 25% stocks, this Fund is designed to provide a diversified conservative strategy with emphasis placed on fixed income to obtain lower volatility and market risk.

INVESTMENT STYLE: The Fund consists of a mixture of some of the other investment choices available in the Plans. The target allocation for this Fund is shown in the pie chart below.

PERFORMANCE THRU 12/31/18:

<table>
<thead>
<tr>
<th>Years</th>
<th>Fund*</th>
<th>Barclays Aggregate</th>
<th>S&amp;P 500 Index</th>
<th>SSgA Money Market</th>
<th>Russell 2000 Stock Index</th>
<th>MSCI ACWI Ex-US</th>
</tr>
</thead>
<tbody>
<tr>
<td>One</td>
<td>-1.6%</td>
<td>0.0%</td>
<td>-4.4%</td>
<td>2.0%</td>
<td>-11.0%</td>
<td>-14.2%</td>
</tr>
<tr>
<td>Three</td>
<td>3.7%</td>
<td>2.1%</td>
<td>9.3%</td>
<td>1.2%</td>
<td>7.4%</td>
<td>4.5%</td>
</tr>
<tr>
<td>Five</td>
<td>3.4%</td>
<td>2.5%</td>
<td>8.5%</td>
<td>70.0%</td>
<td>4.4%</td>
<td>0.7%</td>
</tr>
</tbody>
</table>

* Time-weighted rates of return, net of investment fees.

TARGET ALLOCATION:

<table>
<thead>
<tr>
<th>S&amp;P 500 Stock Index Fund</th>
<th>Targets</th>
<th>Holdings</th>
</tr>
</thead>
<tbody>
<tr>
<td>S&amp;P 500 Stock Index Fund</td>
<td>16.0%</td>
<td>16.1%</td>
</tr>
<tr>
<td>Small Company Stock Fund</td>
<td>4.0</td>
<td>4.1</td>
</tr>
<tr>
<td>International Stock Index Fund</td>
<td>5.0</td>
<td>4.6</td>
</tr>
<tr>
<td>Bond Market Index Fund</td>
<td>60.0</td>
<td>60.9</td>
</tr>
<tr>
<td>Money Market Fund</td>
<td>15.0</td>
<td>14.3</td>
</tr>
</tbody>
</table>

PORTFOLIO ANALYSIS: Portfolio Assets...................... $49.1 M
For additional information, please refer to the fact sheets on the individual funds: S&P 500 Stock Index Fund, Small Company Stock Fund, International Stock Index Fund, Bond Market Index Fund, and Money Market Fund.

MANAGER: S&P 500 Stock Index Fund, Bond Market Index Fund, and International Stock Index Fund are managed by BlackRock, Inc.; Small Company Stock Fund by Dimensional Fund Advisors; and Money Market Fund by State Street Global Advisors.

ANNUAL INVESTMENT FEE: Approximately 0.07%
MODERATE PREMIXED FUND

INVESTMENT OBJECTIVE: Through a combination of 50% fixed income investments and 50% stocks, this Fund is designed to provide a diversified balanced strategy with investments split evenly between equities with their higher expected rates of return and volatility and fixed income investments with their lower expected rates of return and volatility.

INVESTMENT STYLE: The Fund consists of a mixture of some of the other investment choices available in the Plans. The target allocation for this Fund is shown in the pie chart below.

PERFORMANCE THRU 12/31/18:

<table>
<thead>
<tr>
<th>Years</th>
<th>Fund*</th>
<th>Barclays Aggregate</th>
<th>S&amp;P 500 Index</th>
<th>Russell 2000 Stock Index</th>
<th>MSCI ACWI Ex-US</th>
</tr>
</thead>
<tbody>
<tr>
<td>One</td>
<td>-3.7%</td>
<td>0.0%</td>
<td>-4.4%</td>
<td>-11.0%</td>
<td>-14.2%</td>
</tr>
<tr>
<td>Three</td>
<td>5.3%</td>
<td>2.1%</td>
<td>9.3%</td>
<td>7.4%</td>
<td>4.5%</td>
</tr>
<tr>
<td>Five</td>
<td>4.6%</td>
<td>2.5%</td>
<td>8.5%</td>
<td>4.4%</td>
<td>0.7%</td>
</tr>
</tbody>
</table>

* Time-weighted rates of return, net of investment fees.

TARGET ALLOCATION:

<table>
<thead>
<tr>
<th>Fund Description</th>
<th>Targets</th>
<th>Holdings</th>
</tr>
</thead>
<tbody>
<tr>
<td>S&amp;P 500 Stock Index Fund</td>
<td>32.0%</td>
<td>31.6%</td>
</tr>
<tr>
<td>Small Company Stock Fund</td>
<td>8.0</td>
<td>7.9</td>
</tr>
<tr>
<td>International Stock Index Fund</td>
<td>10.0</td>
<td>8.8</td>
</tr>
<tr>
<td>Bond Market Index Fund</td>
<td>50.0</td>
<td>51.7</td>
</tr>
</tbody>
</table>

PORTFOLIO ANALYSIS: Portfolio Assets $386.1 M
For additional information, please refer to the fact sheets on the individual funds: S&P 500 Stock Index Fund, Small Company Stock Fund, International Stock Index Fund, Bond Market Index Fund and Money Market Fund.


ANNUAL INVESTMENT FEE: Approximately 0.07%
AGGRESSIVE PREMIXED FUND

INVESTMENT OBJECTIVE: Through a combination of 25% fixed income investments and 75% stocks, this Fund is designed to provide a diversified aggressive strategy with the emphasis placed on equities with their higher expected returns for participants assuming greater market volatility.

INVESTMENT STYLE: The Fund consists of a mixture of some of the other investment choices available in the Plans. The target allocation for this Fund is shown in the pie chart below.

PERFORMANCE THRU 12/31/18:

<table>
<thead>
<tr>
<th>Years</th>
<th>Fund*</th>
<th>Barclays Aggregate</th>
<th>S&amp;P 500 Index</th>
<th>Russell 2000 Stock Index</th>
<th>MSCI ACWI Ex-US</th>
</tr>
</thead>
<tbody>
<tr>
<td>One</td>
<td>-5.6%</td>
<td>0.0%</td>
<td>-4.4%</td>
<td>-11.0%</td>
<td>-14.2%</td>
</tr>
<tr>
<td>Three</td>
<td>6.7%</td>
<td>2.1%</td>
<td>9.3%</td>
<td>7.4%</td>
<td>4.5%</td>
</tr>
<tr>
<td>Five</td>
<td>5.5%</td>
<td>2.5%</td>
<td>8.5%</td>
<td>4.4%</td>
<td>0.7%</td>
</tr>
</tbody>
</table>

* Time-weighted rates of return, net of investment fees.

TARGET ALLOCATION:

| | S&P 500 Stock Index Fund | Targets | 48.0% | 47.9% |
| | Small Company Stock Fund | Targets | 12.0% | 11.9% |
| | International Stock Index Fund | Targets | 15.0% | 13.3% |
| | Bond Market Index Fund | Targets | 25.0% | 26.9% |

PORTFOLIO ANALYSIS: Portfolio Assets $85.4 M

For additional information, please refer to the fact sheets on the individual funds: S&P 500 Stock Index Fund, Small Company Stock Fund, International Stock Index Fund and Bond Market Index Fund.

MANAGER: S&P 500 Stock Index Fund, Bond Market Index Fund and International Stock Index Fund are managed by BlackRock, Inc., and Small Company Stock Fund by Dimensional Fund Advisors.

ANNUAL INVESTMENT FEE: Approximately 0.08%
The Age-Based Fund utilizes the existing Premixed Funds for your investment allocation between stocks, bonds and cash. The premixed funds function together as a “life cycle” fund, which means asset allocations automatically become more conservative as a member gets closer to retirement age.

Members through age 39 who select this option will first have their assets invested in the **Aggressive Premixed Fund** (see the Aggressive Premixed Fund fact sheet for fund details). The use of the Aggressive Premixed Fund is for members with the longest time before retirement. As members reach age 40 their investment will automatically be changed to the Moderate Premixed Fund.

Members at age 40 through 59 who select this option will have their assets invested in the **Moderate Premixed Fund** (see the Moderate Premixed Fund fact sheet for fund details). The use of the Moderate Premixed Fund is for members at a mid-point in their lives and investment horizon. When members become age 60 their investment will be changed to the Conservative Premixed Fund.

Members at age 60 and over who select this option will have their assets invested in the **Conservative Premixed Fund** (see the Conservative Premixed Fund fact sheet for fund details). The use of the Conservative Premixed Fund is for members as they draw closer to the end of their careers and have a shorter investment horizon.

By selecting the Age Based Fund, members have the ease of an automatic shift to more conservative investments and an automatic re-balance of their asset allocation with changes in the markets. Members always retain the option to transfer their account and future contributions into any of the 13 other funds.
S&P 500 STOCK INDEX FUND

INVESTMENT OBJECTIVE: The S&P 500 Stock Index Fund seeks to replicate the returns and characteristics of the S&P 500 Index. Contributions to the Fund are invested in the BlackRock, Inc. Equity Index Fund.

INVESTMENT STYLE: The S&P 500 Index is a broad index comprised of 500 common stocks representing over 75% of the capitalization of the U.S. equity market. Common stocks are purchased in the same weighting as they appear in the S&P 500 Index.

PERFORMANCE THRU 12/31/18:

<table>
<thead>
<tr>
<th>Years</th>
<th>Fund*</th>
<th>S&amp;P 500 Index</th>
</tr>
</thead>
<tbody>
<tr>
<td>One</td>
<td>-4.4%</td>
<td>-4.4%</td>
</tr>
<tr>
<td>Three</td>
<td>9.2%</td>
<td>9.3%</td>
</tr>
<tr>
<td>Five</td>
<td>8.5%</td>
<td>8.5%</td>
</tr>
</tbody>
</table>

* Time-weighted rates of return, net of investment fees.

COMPOSITION: Common Stocks.................. 99.1%  Cash........................................0.9%

MAJOR SECTORS:

| Technology  | 20.1% | Industrials | 9.2% |
| Health Care | 15.6%  | Consumer Staples | 7.4% |
| Financials  | 13.3%  | Energy      | 5.3% |
| Communications | 10.1% | Utilities | 3.3% |
| Consumer Discretionary | 9.9% | Real Estate | 3.0% |
| Financials  | 13.3%  | Materials  | 5.3% |
| Communications | 10.1% | Materials | 3.3% |

LARGEST HOLDINGS:

| Microsoft   | 3.7% | Facebook  | 1.5% |
| Apple       | 3.4% | JP Morgan Chase | 1.5 |
| Amazon      | 2.9% | Alphabet Class A | 1.5 |
| Berkshire Hathaway | 1.9% | Alphabet Class C | 1.5 |
| Johnson & Johnson | 1.7% | Exxon Mobil | 1.4 |

PORTFOLIO ANALYSIS:

Portfolio Assets ................................ $64.5 B
Price-to-Earnings ................................ 22.1x
Number of Holdings ............................ 505
Price-to-Book ................................... 3.0x
Avg. Capitalization ............................ $41.6 B
Yield ............................................. 2.2%

MANAGER: BlackRock, Inc., is located in New York, New York.

ANNUAL INVESTMENT FEE: Approximately 0.01%
LARGE COMPANY GROWTH STOCK INDEX FUND

INVESTMENT OBJECTIVE: The Large Company Growth Stock Index Fund seeks to replicate the returns and characteristics of the Russell 1000 Growth Index. Contributions to the Fund are invested in the BlackRock, Inc. Russell 1000 Growth Fund.

INVESTMENT STYLE: The Russell 1000 Index represents the largest 1,000 U.S. stocks based on market capitalization. These stocks can further be classified as growth or value. The Russell 1000 Growth Index is a sub-category of the Russell 1000 Index with growth characteristics. Growth characteristics consist of higher expected earnings and revenue increases as well as higher price-to-earnings ratios and price-to-book values.

PERFORMANCE THRU 12/31/18:

<table>
<thead>
<tr>
<th>Years</th>
<th>Fund*</th>
<th>Russell 1000 Growth Index</th>
</tr>
</thead>
<tbody>
<tr>
<td>One</td>
<td>-1.7%</td>
<td>-1.5%</td>
</tr>
<tr>
<td>Three</td>
<td>11.0%</td>
<td>11.1%</td>
</tr>
<tr>
<td>Five</td>
<td>10.4%</td>
<td>10.4%</td>
</tr>
</tbody>
</table>

* Time-weighted rates of return, net of investment fees.

COMPOSITION: Common Stocks .................. 99.4%  Cash ........................................... 0.6

MAJOR SECTORS:

<table>
<thead>
<tr>
<th>Sector</th>
<th>Weight</th>
<th>Russell 1000 Growth Index</th>
</tr>
</thead>
<tbody>
<tr>
<td>Technology</td>
<td>31.5%</td>
<td></td>
</tr>
<tr>
<td>Consumer Discretionary</td>
<td>15.2%</td>
<td></td>
</tr>
<tr>
<td>Health Care</td>
<td>14.3%</td>
<td></td>
</tr>
<tr>
<td>Communications</td>
<td>11.9%</td>
<td></td>
</tr>
<tr>
<td>Industrials</td>
<td>11.8%</td>
<td></td>
</tr>
<tr>
<td>Consumer Staples</td>
<td>6.0%</td>
<td></td>
</tr>
<tr>
<td>Financials</td>
<td>4.4%</td>
<td></td>
</tr>
<tr>
<td>Real Estate</td>
<td>2.3%</td>
<td></td>
</tr>
<tr>
<td>Materials</td>
<td>1.8%</td>
<td></td>
</tr>
<tr>
<td>Energy</td>
<td>0.8%</td>
<td></td>
</tr>
</tbody>
</table>

LARGEST HOLDINGS:

<table>
<thead>
<tr>
<th>Company</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Apple</td>
<td>6.5%</td>
</tr>
<tr>
<td>Microsoft</td>
<td>6.3%</td>
</tr>
<tr>
<td>Amazon</td>
<td>5.3%</td>
</tr>
<tr>
<td>Facebook</td>
<td>2.7%</td>
</tr>
<tr>
<td>Alphabet Class A</td>
<td>2.7%</td>
</tr>
<tr>
<td>Alphabet Class C</td>
<td>2.7%</td>
</tr>
<tr>
<td>United Health</td>
<td>2.1%</td>
</tr>
<tr>
<td>Visa</td>
<td>2.0%</td>
</tr>
<tr>
<td>Home Depot</td>
<td>1.7%</td>
</tr>
<tr>
<td>Mastercard</td>
<td>1.5%</td>
</tr>
</tbody>
</table>

PORTFOLIO ANALYSIS:

<table>
<thead>
<tr>
<th>Metric</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Portfolio Assets</td>
<td>$3.7 B</td>
</tr>
<tr>
<td>Price-to-Earnings</td>
<td>24.8x</td>
</tr>
<tr>
<td>Number of Holdings</td>
<td>544</td>
</tr>
<tr>
<td>Price-to-Book</td>
<td>6.5x</td>
</tr>
<tr>
<td>Avg. Capitalization</td>
<td>$31.4 B</td>
</tr>
<tr>
<td>Yield</td>
<td>1.4%</td>
</tr>
</tbody>
</table>

MANAGER: BlackRock, Inc., is located in New York, New York.

ANNUAL INVESTMENT FEE: Approximately 0.03%
LARGE COMPANY VALUE STOCK INDEX FUND

INVESTMENT OBJECTIVE: The Large Company Value Stock Index Fund seeks to replicate the returns and characteristics of the Russell 1000 Value Index. Contributions to the Fund are invested in the BlackRock, Inc. Russell 1000 Value Fund.

INVESTMENT STYLE: The Russell 1000 Index represents the largest 1,000 U.S. stocks based on market capitalization. These stocks can further be classified as growth or value. The Russell 1000 Value Index is a sub-category of the Russell 1000 Index with value characteristics. Value characteristics generally consist of lower price-to-earnings ratios and lower price-to-book values for stocks currently out of favor and/or stocks with lower forecasted growth rates.

PERFORMANCE THRU 12/31/18:

<table>
<thead>
<tr>
<th>Years</th>
<th>Fund*</th>
<th>Russell 1000 Value Index</th>
</tr>
</thead>
<tbody>
<tr>
<td>One</td>
<td>-8.2%</td>
<td>-8.3%</td>
</tr>
<tr>
<td>Three</td>
<td>7.0%</td>
<td>7.0%</td>
</tr>
<tr>
<td>Five</td>
<td>6.0%</td>
<td>5.9%</td>
</tr>
</tbody>
</table>

* Time-weighted rates of return, net of investment fees.

COMPOSITION: Common Stocks .................. 98.7% Cash ........................................ 1.3%

MAJOR SECTORS:

<table>
<thead>
<tr>
<th>Sector</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Financials</td>
<td>22.5%</td>
</tr>
<tr>
<td>Health Care</td>
<td>15.7%</td>
</tr>
<tr>
<td>Energy</td>
<td>9.3%</td>
</tr>
<tr>
<td>Technology</td>
<td>9.3%</td>
</tr>
<tr>
<td>Consumer Staples</td>
<td>7.8%</td>
</tr>
<tr>
<td>Industrials</td>
<td>7.3%</td>
</tr>
<tr>
<td>Communications</td>
<td>7.3%</td>
</tr>
<tr>
<td>Utilities</td>
<td>6.5%</td>
</tr>
<tr>
<td>Consumer Discretionary</td>
<td>5.2%</td>
</tr>
<tr>
<td>Real Estate</td>
<td>5.0%</td>
</tr>
<tr>
<td>Materials</td>
<td>4.1%</td>
</tr>
</tbody>
</table>

LARGEST HOLDINGS:

<table>
<thead>
<tr>
<th>Company</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Berkshire Hathaway</td>
<td>2.9%</td>
</tr>
<tr>
<td>JP Morgan Chase</td>
<td>2.7%</td>
</tr>
<tr>
<td>Exxon Mobil</td>
<td>2.5%</td>
</tr>
<tr>
<td>Johnson &amp; Johnson</td>
<td>2.4%</td>
</tr>
<tr>
<td>Pfizer Inc</td>
<td>2.2%</td>
</tr>
<tr>
<td>Verizon Comm</td>
<td>2.0%</td>
</tr>
<tr>
<td>Proctor &amp; Gamble</td>
<td>1.9%</td>
</tr>
<tr>
<td>Bank of America</td>
<td>1.9%</td>
</tr>
<tr>
<td>Intel</td>
<td>1.8%</td>
</tr>
<tr>
<td>AT&amp;T</td>
<td>1.8%</td>
</tr>
</tbody>
</table>

PORTFOLIO ANALYSIS:

<table>
<thead>
<tr>
<th>Metric</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Portfolio Assets</td>
<td>$2.6 B</td>
</tr>
<tr>
<td>Price-to-Earnings</td>
<td>14.8x</td>
</tr>
<tr>
<td>Number of Holdings</td>
<td>721</td>
</tr>
<tr>
<td>Price-to-Book</td>
<td>1.9x</td>
</tr>
<tr>
<td>Avg. Capitalization</td>
<td>$23.1 B</td>
</tr>
<tr>
<td>Yield</td>
<td>2.8%</td>
</tr>
</tbody>
</table>

MANAGER: BlackRock, Inc., is located in New York, New York.

ANNUAL INVESTMENT FEE: Approximately 0.03%
SMALL COMPANY STOCK FUND

INVESTMENT OBJECTIVE: The Small Company Stock Fund’s primary objective is capital appreciation through investment in U.S. common stocks with small capitalization. Contributions to the Fund are invested in the DFA Small Company Portfolio.

INVESTMENT STYLE: This Fund is focused on capturing the returns and possible diversification benefits of a broad cross-section of small U.S. companies. The Fund holds securities with market capitalizations within the smallest 10% of the equity market or smaller than the 1,000th largest company in the U.S. The equity market is comprised of companies listed on the New York Stock Exchange, the NASDAQ National Market System and the American Stock Exchange.

PERFORMANCE THRU 12/31/18:

<table>
<thead>
<tr>
<th>Years</th>
<th>Fund*</th>
<th>Russell 2000 Stock Index</th>
</tr>
</thead>
<tbody>
<tr>
<td>One</td>
<td>-13.1%</td>
<td>-11.0%</td>
</tr>
<tr>
<td>Three</td>
<td>6.2%</td>
<td>7.4%</td>
</tr>
<tr>
<td>Five</td>
<td>3.9%</td>
<td>4.4%</td>
</tr>
</tbody>
</table>

* Time-weighted rates of return, net of investment fees.

COMPOSITION: Common Stocks ................. 98.8%  Cash ........................................ 1.2

MAJOR SECTORS: Financials ...................... 20.1%  Materials ......................... 4.7%
Industrials ............... 19.6  Consumer Staples .......... 4.5
Consumer Discretionary .... 14.9  Communications .......... 4.0
Technology .................... 13.4  Utilities .................... 3.9
Health Care .................... 9.2  Real Estate ..................... 0.7
Energy ....................... 5.0  REITS ............................. 0.0

LARGEST HOLDINGS: Deckers Outdoor ........ 0.47%  Horizon Pharma Plc ........ 0.31%
Integrated Device Tech ... 0.35  FirstCash Inc ................. 0.30
Cathay General Bancorp ... 0.34  Cree Inc ........................ 0.29
Green Dot Corp .............. 0.31  Spirit Airlines Inc .... 0.29
Selective Insurance Group ... 0.31 Amedisys Inc ............ 0.28

PORTFOLIO ANALYSIS: Portfolio Assets ................ $15.2 B
Price-to-Earnings ......................... 14.14x
Number of Holdings .................. 2,090
Price-to-Book ......................... 1.6x
Avg. Capitalization ................. $2,001 M
Yield .......................... 1.0%

MANAGER: Dimensional Fund Advisors is located in Austin, Texas.

ANNUAL INVESTMENT FEE: Approximately 0.37%
INTERNATIONAL STOCK INDEX FUND


INVESTMENT STYLE: The MSCI ACWI ex-US represents approximately 60% of the total stock market capitalization outside of the United States. In addition to long-term capital appreciation, investing in foreign markets offers the opportunity of diversification benefits.

PERFORMANCE THRU 12/31/18:

<table>
<thead>
<tr>
<th>Years</th>
<th>Fund*</th>
<th>MSCI ACWI Ex-US Index</th>
</tr>
</thead>
<tbody>
<tr>
<td>One</td>
<td>-14.0%</td>
<td>-14.2%</td>
</tr>
<tr>
<td>Three</td>
<td>4.9%</td>
<td>4.5%</td>
</tr>
<tr>
<td>Five</td>
<td>0.8%</td>
<td>0.7%</td>
</tr>
</tbody>
</table>

* Time-weighted rates of return, net of investment fees.

COUNTRY DIVERSIFICATION:

<table>
<thead>
<tr>
<th>Country</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Japan</td>
<td>16.4%</td>
</tr>
<tr>
<td>UK</td>
<td>11.7%</td>
</tr>
<tr>
<td>China</td>
<td>7.9%</td>
</tr>
<tr>
<td>France</td>
<td>7.5%</td>
</tr>
<tr>
<td>Canada</td>
<td>6.5%</td>
</tr>
<tr>
<td>Germany</td>
<td>5.9%</td>
</tr>
<tr>
<td>Switzerland</td>
<td>5.8%</td>
</tr>
<tr>
<td>Australia</td>
<td>4.7%</td>
</tr>
<tr>
<td>Korea</td>
<td>3.6%</td>
</tr>
<tr>
<td>Taiwan</td>
<td>3.0%</td>
</tr>
</tbody>
</table>

LARGEST HOLDINGS:

<table>
<thead>
<tr>
<th>Company</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nestle</td>
<td>1.34%</td>
</tr>
<tr>
<td>Tencent Holdings</td>
<td>1.24%</td>
</tr>
<tr>
<td>Novartis</td>
<td>1.0%</td>
</tr>
<tr>
<td>Taiwan Semiconductor</td>
<td>0.98%</td>
</tr>
<tr>
<td>Alibaba</td>
<td>0.96%</td>
</tr>
<tr>
<td>Roche</td>
<td>0.94%</td>
</tr>
<tr>
<td>Samsung Electronics</td>
<td>0.90%</td>
</tr>
<tr>
<td>HSBC Holdings</td>
<td>0.89%</td>
</tr>
<tr>
<td>Royal Dutch Shell</td>
<td>0.73%</td>
</tr>
<tr>
<td>Toyota Motor</td>
<td>0.72%</td>
</tr>
</tbody>
</table>

PORTFOLIO ANALYSIS:

<table>
<thead>
<tr>
<th>Metric</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Portfolio Assets</td>
<td>$6.9 B</td>
</tr>
<tr>
<td>Price-to-Earnings</td>
<td>12.6x</td>
</tr>
<tr>
<td>Number of Holdings</td>
<td>1,977</td>
</tr>
<tr>
<td>Number of Countries</td>
<td>46</td>
</tr>
<tr>
<td>Avg. Capitalization</td>
<td>$9.6 B</td>
</tr>
<tr>
<td>Emerging Markets</td>
<td>40.3%</td>
</tr>
</tbody>
</table>

MANAGER: BlackRock, Inc., is located in New York, New York.

ANNUAL INVESTMENT FEE: Approximately 0.14%
INVESTOR SELECT FUND

INVESTMENT OBJECTIVE: The Fund is invested with an asset allocation and investment strategy substantially similar to the investment allocations made for the Defined Benefit Plans.

INVESTMENT STYLE: The Fund consists of a mixture of some of the other investment choices available in the Plans as well as some additional investments. The target allocation for this Fund is shown in the pie chart below.

PERFORMANCE THRU 12/31/18:

<table>
<thead>
<tr>
<th>Years</th>
<th>Fund*</th>
<th>Barclays Aggregate</th>
<th>Russell 1000 Index</th>
<th>Russell 2000 Index</th>
<th>MSCI ACWI Ex-US</th>
<th>DJ US Select Real Estate Securities Index</th>
</tr>
</thead>
<tbody>
<tr>
<td>One</td>
<td>-5.8%</td>
<td>0.0%</td>
<td>-4.8%</td>
<td>-11.0%</td>
<td>-14.2%</td>
<td>-4.2%</td>
</tr>
<tr>
<td>Three</td>
<td>5.4%</td>
<td>2.1%</td>
<td>9.1%</td>
<td>7.4%</td>
<td>4.5%</td>
<td>2.0%</td>
</tr>
<tr>
<td>Five</td>
<td>4.7%</td>
<td>2.5%</td>
<td>8.2%</td>
<td>4.4%</td>
<td>0.7%</td>
<td>7.9%</td>
</tr>
</tbody>
</table>

* Time-weighted rates of return, net of investment fees.

TARGET ALLOCATION:

| Russell 1000 Index Fund (US) | Targets 28.8% | Holdings 28.3% |
| Small Company Stock Fund (US) | 3.2 | 2.9 |
| International Stock Index Fund | 11.5 | 10.1 |
| Real Estate Fund | 7.5 | 8.2 |
| Global Equity Fund | 19.0 | 18.5 |
| Bond Market Fund | 9.9 | 8.4 |
| Active Fixed Income Funds | 20.1 | 23.6 |

PORTFOLIO

ANALYSIS: Portfolio Assets $18.2 M

MANAGER: Russell 1000 Stock Index Fund, International Stock Index Fund, and Bond Market Index Fund are managed by BlackRock, Inc.; Small Company Stock Fund by Dimensional Fund Advisors; Real Estate Fund by Goldman Sachs; Global Equity Fund by MFS; and Active Fixed Income Funds by BlackRock, Inc., and PIMCO.

ANNUAL INVESTMENT FEE: Approximately 0.07%
CASH BALANCE RETIREMENT PLAN

The Cash Balance benefit is the current option for members of the State Plan and the County Plan. All new plan members participate in Cash Balance upon hire. When Cash Balance was implemented in January 2003, members participating in Defined Contribution were given the choice to join Cash Balance or remain in Defined Contribution. The passage of LB665 in 2007 and LB916 in 2012 created a second and third election period for Defined Contribution members to convert to Cash Balance.

State Plan members contribute 4.8% of compensation each payroll period and the employer matches the employee contributions at 156%. County Plan members contribute 4.5% of compensation each payroll period and the county matches the employee contributions at the rate of 150%. Members vest after three years of plan participation.

Cash Balance members do not make their own investment choices. The assets are held in a trust fund which is managed by the Nebraska Investment Council. Cash Balance participants are guaranteed an annual interest credit rate which is defined in statute as the greater of 5% (the “floor” rate) or the federal mid-term rate plus 1.5%. The interest credit rate is determined each calendar quarter. The account balance for State and County Plan members consists of accumulated contributions plus the interest credit rate earned each quarter.

ASSET ALLOCATION

The Nebraska Investment Council has chosen the following investment strategy for the Cash Balance Benefit. This “strategy” is designed to mirror the investment strategy of the Defined Benefit plans administered by NPERS for the School Employees, Judges and State Patrol.
PORTFOLIO MANAGERS

The investments for the Cash Balance benefit are managed by the following managers. Their performance is monitored quarterly and they are subject to thorough reviews at least annually. A small portion of the assets are managed internally by the Nebraska Investment Council.

While the pie chart on the previous page shows the investment “strategy” for Cash Balance, the following shows the actual percentages at the end of 2018.

<table>
<thead>
<tr>
<th>Category</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>U.S. Equity</td>
<td>27.0%</td>
</tr>
<tr>
<td>Fixed Income</td>
<td>30%</td>
</tr>
<tr>
<td>Global Equity</td>
<td>19%</td>
</tr>
<tr>
<td>Non-U.S. Equity</td>
<td>11.5%</td>
</tr>
</tbody>
</table>

**Real Estate**  (7.5%)
- AG Realty Fund VIII, L.P.
- Almanac Realty Securities Fund V, L.P.
- Almanac Realty VII
- Almanac Realty VIII
- Beacon Capital Strategic Partners V, L.P.
- CB Richard Ellis Strategic Partners U.S. Opportunity Fund V, L.P.
- Clarion Lion
- Cornerstone Patriot Fund, L.P.
- Heitman Value partners Fund II, L.P.
- Landmark Real Estate Partners VI, L.P.
- Landmark VII
- Landmark VIII
- Prudential Property Investment (2 investments)
- Rockpoint Real Estate Fund III, L.P.
- Rockwood Capital Real Estate Partners Fund IX, L.P.
- Rockwood Capital Real Estate Partners X
- UBS Trumbull Property Fund

**Private Equity**  (5.0%)
- AbbVie Capital Private Equity Fund V, L.P.
- Accel-krkr Capital Partners III, L.P.
- Accel-krkr Capital Partners IV, L.P.
- Ares Corporate Opp. Fund III, L.P.
- Ares Corporate Opp. Fund IV, L.P.
- Ares Corporate Opp. Fund V, L.P.
- Ares Mezzanine Partners, L.P.
- Beecken Petty O’Keefe Fund IV, L.P.
- Bridgepoint Europe IV, L.P.
- Bridgepoint Europe V
- Bridgepoint Europe VI
- CVC Capital Partners VI, L.P.
- CVC European Equity Partners V, L.P.
- Dover Street VIII, L.P.
- Dover IX
- EIF United States Power Fund IV, L.P.
- The EMG Fund III
- Francisco Partners IV
- Francisco V
- Fulcrum Growth Partners IV, L.P.
- Green Equity Investors VI, L.P.
- Green Equity Investors VII, L.P.
- Genstar Capital Partners VIII
- Lightyear Fund III, L.P.

**CASH BALANCE REPORT**

**PERFORMANCE SUMMARY**

<table>
<thead>
<tr>
<th>Time Period</th>
<th>Cash Balance Benefit</th>
<th>Benchmark</th>
<th>Interest Credit Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-Year</td>
<td>-4.2%</td>
<td>-4.8%</td>
<td>5.0%</td>
</tr>
<tr>
<td>3-Year</td>
<td>6.6%</td>
<td>6.2%</td>
<td>5.0%</td>
</tr>
<tr>
<td>5-Year</td>
<td>5.6%</td>
<td>5.1%</td>
<td>5.0%</td>
</tr>
</tbody>
</table>

When investment performance results are above the interest credit rate plus the required reserve, the Public Employees Retirement Board (PERB) has the option to issue a dividend to plan members, or the Nebraska State Legislature may pass legislation to improve plan benefits.
CASH BALANCE CREDIT RATE

<table>
<thead>
<tr>
<th></th>
<th>Q1</th>
<th>Q2</th>
<th>Q3</th>
<th>Q4</th>
<th>ANNUAL RATE</th>
</tr>
</thead>
<tbody>
<tr>
<td>2018</td>
<td>5.00%</td>
<td>5.00%</td>
<td>5.00%</td>
<td>5.00%</td>
<td>5.00%</td>
</tr>
<tr>
<td>2017</td>
<td>5.00%</td>
<td>5.00%</td>
<td>5.00%</td>
<td>5.00%</td>
<td>5.00%</td>
</tr>
<tr>
<td>2016</td>
<td>5.00%</td>
<td>5.00%</td>
<td>5.00%</td>
<td>5.00%</td>
<td>5.00%</td>
</tr>
<tr>
<td>2015</td>
<td>5.00%</td>
<td>5.00%</td>
<td>5.00%</td>
<td>5.00%</td>
<td>5.00%</td>
</tr>
<tr>
<td>2014</td>
<td>5.00%</td>
<td>5.00%</td>
<td>5.00%</td>
<td>5.00%</td>
<td>5.00%</td>
</tr>
<tr>
<td>2013</td>
<td>5.00%</td>
<td>5.00%</td>
<td>5.00%</td>
<td>5.00%</td>
<td>5.00%</td>
</tr>
<tr>
<td>2012</td>
<td>5.00%</td>
<td>5.00%</td>
<td>5.00%</td>
<td>5.00%</td>
<td>5.00%</td>
</tr>
<tr>
<td>2011</td>
<td>5.00%</td>
<td>5.00%</td>
<td>5.00%</td>
<td>5.00%</td>
<td>5.00%</td>
</tr>
<tr>
<td>2010</td>
<td>5.00%</td>
<td>5.00%</td>
<td>5.00%</td>
<td>5.00%</td>
<td>5.00%</td>
</tr>
<tr>
<td>2009</td>
<td>5.00%</td>
<td>5.00%</td>
<td>5.00%</td>
<td>5.00%</td>
<td>5.00%</td>
</tr>
<tr>
<td>2008</td>
<td>5.08%</td>
<td>5.00%</td>
<td>5.00%</td>
<td>5.00%</td>
<td>5.02%</td>
</tr>
</tbody>
</table>

Cash Balance option pays a credit rate, which is the greater of 5% or the applicable federal mid-term rate, as published by the IRS as of the first day of the calendar quarter, plus 1.5%, compounded annually.

CASH BALANCE DIVIDEND

<table>
<thead>
<tr>
<th>RATE</th>
<th>BALANCE AS OF:</th>
<th>EMPLOYED ON:</th>
<th>PAID ON:</th>
<th>AMOUNT PAID</th>
</tr>
</thead>
<tbody>
<tr>
<td>2018 State</td>
<td>5.46% 12/31/2017</td>
<td>12/31/2017</td>
<td>07/20/2018</td>
<td>$65,973,682.88</td>
</tr>
<tr>
<td>2018 County</td>
<td>8.42% 12/31/2017</td>
<td>12/31/2017</td>
<td>07/20/2018</td>
<td>$35,180,846.42</td>
</tr>
<tr>
<td>2017 State</td>
<td>3.07% 12/31/2016</td>
<td>12/31/2016</td>
<td>08/11/2017</td>
<td>$35,633,783.74</td>
</tr>
<tr>
<td>2017 County</td>
<td>0.51% 12/31/2016</td>
<td>12/31/2016</td>
<td>08/11/2017</td>
<td>$2,003,560.49</td>
</tr>
<tr>
<td>2016</td>
<td>0.00% n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>$-</td>
</tr>
<tr>
<td>2015 State</td>
<td>4.53% 12/31/2014</td>
<td>12/31/2014</td>
<td>08/14/2015</td>
<td>$48,241,290.44</td>
</tr>
<tr>
<td>2015 County</td>
<td>5.81% 12/31/2014</td>
<td>12/31/2014</td>
<td>08/14/2015</td>
<td>$19,697,165.11</td>
</tr>
<tr>
<td>2014 State</td>
<td>0.00% n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>$-</td>
</tr>
<tr>
<td>2014 County</td>
<td>0.29% 12/31/2013</td>
<td>12/31/2013</td>
<td>07/28/2014</td>
<td>$916,192.63</td>
</tr>
<tr>
<td>2013</td>
<td>0.00% n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>$-</td>
</tr>
<tr>
<td>2012</td>
<td>0.00% n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>$-</td>
</tr>
<tr>
<td>2011</td>
<td>0.00% n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>$-</td>
</tr>
<tr>
<td>2010</td>
<td>0.00% n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>$-</td>
</tr>
<tr>
<td>2009</td>
<td>0.00% n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>$-</td>
</tr>
<tr>
<td>2008 County</td>
<td>5.34% 12/31/2007</td>
<td>12/31/2007</td>
<td>10/3/2008</td>
<td>$6,943,643.11</td>
</tr>
</tbody>
</table>

Dividends are calculated based upon the recommendations from the plan actuary using the member's account balances on the last day of the prior year.
The Perils of Market Timing

The week of August 8-12, 2011, was another volatile week on Wall Street. A perfect storm of political wrangling over the debt, the Standard and Poor’s downgrade, concerns over the European banking industry, and fears of a new recession resulted in four consecutive days of market fluctuations all in excess of 400 points.

A market this turbulent can unnerve even a seasoned investor but can also provide a real world example of the dangers of market timing. Using actual data from this week, let’s examine how two different investors might have reacted to the market and the resulting impact to their retirement accounts.

Let’s call them Investor “A” and Investor “B.” To keep the math simple, let’s assume both had $100,000 invested in the S&P 500 fund at the start of the week. This fund consists of stock of the 500 largest American companies traded on the NY Stock Exchange and is considered a good indicator of overall market performance. This fund is available in the Defined Contribution and Deferred Compensation plans. We can track the beginning and ending share prices for each day using the online account access. At the start of the week, the price per share for this fund was $1.632271, which translates into approximately 61,264 shares for a $100,000 investment.

While our two investors are hypothetical, the market data and S&P 500 share prices for this week are real. Individuals who react to market fluctuations and try to time the market can drastically damage their retirement accounts. Both of our investors saw a reduction in the value of their accounts at week’s end, but Investor B still owned the same number of shares. When shares of the S&P 500 stock return to the start of the week price, Investor B’s account value will return to $100,000. In contrast, Investor A’s account will be valued at $90,798.

Historically there have always been fluctuations in the stock market and it’s a fairly safe assumption there always will be. How this volatility impacts your bottom line depends on how you react to these up and down swings. Investing seems easy when the market is “soaring,” but a falling market is where many amateur investors lose their way.

An educated investor will minimize risk from these fluctuations by gradually reducing the percentage of stock in their portfolio as they approach retirement. Those with many years to go before retiring will avoid selling and instead may purchase more stock when the price is low—when stock is “on sale.”

Emotionally based investment decisions are part of the reason why the Public Employees Retirement Board recently implemented an excessive trading policy (see the April 2011 newsletter). NPERS encourages participants in the Defined Contribution and Deferred Compensation plans to create a personal long-term investment strategy and refrain from reacting to market fluctuations. For more investment assistance, please refer to our Annual Investment Report or the Investment Education video available on the NPERS website.
One Wild Week:

**MONDAY**
On Monday, the market “plunges” on the first trading day since the Standard and Poor’s downgrade.

**Investor “A”**
Decides to sell their S&P 500 stocks and buy into a “safer” Money Market fund. The price per share for the S&P 500 has dropped to $1.523382 and the sale of 61,264 shares nets them $93,328 which is transferred into a Money Market fund.

**Investor “B”**
Mows the lawn and suffers through a romantic comedy.

**TUESDAY**
Tuesday, the market “soars” in what is attributed to a better than anticipated report on jobless claims, a pledge by the Federal Reserve to keep interest rates low for two more years, and positive news from the European market.

**Investor “A”**
Hoping the worst is over, Investor “A” decides to get back into the market. The end of day price for the S&P 500 is now $1.595415 and the $93,328 in the Money Market fund purchases 58,498 shares in the S&P 500.

**Investor “B”**
Takes the spouse out for a nice romantic dinner.

**WEDNESDAY**
Within minutes of Wednesday’s opening bell the market “plum-mets.” Today the drop is explained as the result of a “bleak economic landscape” and fears of European debt issues.

**Investor “A”**
Frustrated, Investor “A” decides to again get out of the market and back into the Money Market fund. The end of day price for the S&P 500 has now dropped to $1.525893, so the 58,498 shares net $89,261 to move into the Money Market fund.

**Investor “B”**
Investor “B” drives the kids to the park and stops for ice cream on the way home.

**THURSDAY**
On Thursday, you guessed it: the market is “sharply higher,” with the Dow jumping as much as 559 points before ending the day up 423.

**Investor “A”**
This time Investor “A” vows not to make the same mistake again and opts to stay in the Money Market fund.

**Investor “B”**
Finally gets the gutters cleaned and the hedges trimmed.

**FRIDAY**
Friday’s markets show “strong gains” and the news media is reporting “the worst is over.”

**Investor “A”**
Decides to transfer back into the S&P 500. Their Money Market fund investment remains unchanged at $89,261. The end of day price for the S&P 500 is $1.604625 and they are able to purchase 55,627 shares.

**Investor “B”**
Picks up some 1 ½ inch thick ribeyes on the way home from work, grills them to medium rare, and falls asleep halfway through CSI: NY.

**Investor “A”**
Hoping the worst is over, Investor “A” decides to get back into the market. The end of day price for the S&P 500 is now $1.595415 and the $93,328 in the Money Market fund purchases 58,498 shares in the S&P 500.

**Investor “B”**
Takes the spouse out for a nice romantic dinner.

**Investor “A”**
This time Investor “A” vows not to make the same mistake again and opts to stay in the Money Market fund.

**Investor “B”**
Finally gets the gutters cleaned and the hedges trimmed.

**Investor “A”**
Owns approximately 55,627 shares in the S&P 500 with a total value of $89,261.69.

**Investor “B”**
Owns approximately 61,264 shares in the S&P 500 with a total value of $98,305.75.
CHOOSING THE RIGHT MIX FOR YOUR INVESTMENTS

It’s not enough just to invest. You need to choose the right mix of investments to meet your goals. Allocating your assets means deciding how to spread your money among the numerous options provided.

For both your member contributions and your employer matching contributions in Defined Contribution, you have 13 different fund choices which are selected, monitored, and terminated, when necessary, by the Nebraska Investment Council. State of Nebraska employees participating in the 457 Deferred Compensation Plan and Patrol members participating in DROP have the same 13 options. Counties have their own deferred compensation investment funds. Everyone should consider participating in a deferred compensation plan.

These are clichés, but asset allocation is all about “not putting all your eggs in one basket,” “hedging your bets,” “playing the field,” and so on. Diversify. Diversify. Diversify. Approximately 95% of your return will come from that one decision.

DIVERSIFICATION OPTIONS

Stock Investments

- Large Company Value Stock Index
  Generally slower growing, often less volatile, hedge against inflation.

- Large Company Growth Stock Index
  Faster growing, hedge against inflation, but more volatile.

- Small Company Stock
  Fastest growing, more “cutting edge,” hedge against inflation, but much more volatile.

- S&P 500 Stock Index
  500 largest companies, mix of growth and value, hedge against inflation, and often less volatile.

- International Stock
  Divergent returns from U.S. Markets, hedge against inflation with greater volatility.

Fixed Income

- Money Market
  Lower rates of return (follows interest rate changes more quickly with little negative price volatility).

- Stable Value
  Higher interest rate and minimal volatility (return follows interest rate change gradually with little negative market volatility).

- Bond Market Index
  Variable returns both positive and negative, returns that balance stock returns with higher/lower returns, sometimes in the opposite direction. (Returns vary with interest rate changes and can be more volatile.)
PREMIXED/AGE BASED FUNDS

- **Premixed Funds** — Nebraska’s stock and fixed income funds are premixed for you. For example, in the Employer Moderate Fund, 50% will be invested in the fixed income funds and 50% in the funds with stock investments. By selecting among the premixed choices, you have made an asset allocation. Within that asset allocation, each fund itself is diversified.

- **Age-Based Fund** — Similar to a “life cycle” fund, so that as you move closer to retirement, the asset allocation mix among bonds, stocks, and cash automatically changes from aggressive to moderate to conservative. The existing three premixed funds serve as the underlying investments for a participant who chooses Nebraska’s Age-Based Fund.

- **Investor Select Fund** — A premixed fund with an asset allocation that is a combination of actively managed portfolios and passive index funds. The allocation and investment strategy of Nebraska's Investor Select Fund is substantially similar to that of the Defined Benefit Plans for School, Judges and State Patrol employees, also administered by NPERS (although the fund is not “guaranteed” as are the Defined Benefit Plans). The Nebraska Investment Council oversees the investing of the combined monies in the Defined Benefit Plans. The Investor Select Fund was created to give participants the advantage of the Investment Council’s collective professional investment knowledge.

<table>
<thead>
<tr>
<th>FUNDS</th>
<th>FIXED INCOME</th>
<th>STOCKS</th>
<th>REAL ESTATE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Investor Select Fund</td>
<td>30%</td>
<td>62.5%</td>
<td>7.5%</td>
</tr>
</tbody>
</table>

Please refer to the Fund Descriptions section for more information on Premixed, Age Based, or Investor Select Funds.

THE BOTTOM LINE WITH REBALANCING

Nebraska’s Premixed and Investor Select funds automatically rebalance to changing market conditions. This is a very powerful feature.

**EXAMPLE:** You selected the Aggressive Premixed Fund because you felt a greater exposure to stocks (75%), was right for you, but you still wanted some bonds (25%) in the mix. Over time, the stock market does very well—so well that your account now has a mix of 83% stocks and only 17% bonds. That’s out of balance. The fund will respond by selling some of the stocks (thus selling high) and invest more in bonds (thus buying low).

**If the market is down:** You are down to a mix of 60% stock and 40% bonds. To rebalance, more stock will be purchased (thus buying low) and bonds sold to return the mix to 75% stock and 25% bonds. All without having to think about it. It makes buying low and selling high a breeze!
RISK RELATED TO RETURN

When selecting your investment allocations, you must examine your tolerance for risk and how that relates to investment returns.

- **Lower Risk Investing** (Conservative Investment Model) has less change up and down in value, less risk of capital losses during any given time period, more risk of under-performance over time, more loss of purchasing power over time, and historically lower rates of return.

- **Moderate Risk Investing** (Moderate Investing Model) has more change up and down in value, more risk of capital losses during difficult market periods, less risk of under-performance over time, less risk of loss of purchasing power, and historically higher rates of return.

- **Higher Risk Investing** (Aggressive Investing Model) has frequent changes up and down in value, some changes in value can be large, more risk of capital losses over shorter periods of time, less risk of under-performance over time, less risk of loss of purchasing power over time, and historically the highest rates of return over time.

### Conservative Investing Model
- **Emphasis:** Safety and Stability
- **Retirement Horizon:** 5-10 years
- **Goal:** Preservation of principal with competitive returns
- **Risk:** Lower

### Moderate Investing Model
- **Emphasis:** More stability in an “up and down” market
- **Retirement Horizon:** 10-20 years
- **Goal:** Growth and current income
- **Risk:** Moderate

### Aggressive Investing Model
- **Emphasis:** Build assets and protect against inflation
- **Retirement Horizon:** 20+ years
- **Goal:** Capital appreciation
- **Risk:** Higher

---

### Examples of Nebraska’s Lower Risk Investment Options
- Money Market
- Stable Value
- Conservative Premixed
- Age-Based for Age 60 and Over

### Examples of Nebraska’s Moderate Risk Investment Options
- Bond Market Index
- Moderate Premixed
- Investor Select
- Age-Based for Ages 40–59

### Examples of Nebraska’s Higher Risk Investment Options
- S&P Stock Index
- Large Co. Growth
- Large Company Value
- Aggressive Premixed
- International Stock
- Small Company Stock
- Age-Based for Ages Up To 39
THE Time TO Plan IS Now

Have you ever asked yourself, “How much will I need for retirement, and what amount should I save each month to achieve this goal?” Taking a bit of time to ponder your future financial needs is monumental, yet many of us will devote more time planning a vacation than planning for retirement.

“He who fails to plan, is planning to fail.”

– Winston Churchill

The very first step is determining “how much?” Unfortunately there is simply no way to answer that question! Individual variables such as longevity and health expenses will create significant fluctuations. What about investment elections, market returns, and inflation? It’s essentially impossible to determine a retirement nest egg amount that will be exactly right. So what now?

There are multiple methods that can provide a “ballpark” number to help you consider your nest egg goal. This article will cover two methods that may help you set your nest egg goal, and give some tips on how to meet that goal.

The first method is explained in the “How Large Should My Nest Egg Be?” handout found on the NPERS Financial Facts webpage. This calculation looks at an individual retiring at age 65 and their gross salary (income) at that time. Then factoring in various assumptions, an estimated amount required to maintain that same level of income is calculated out to four different ages.

How should you read this chart? Assuming a gross salary of $30,000; if you expect to live to age 90, you would want to have accumulated approximately $496,000 when you terminate employment at age 65. If ALL the assumed variables are correct... and dare I say they won’t be, this amount will allow you to maintain your $30,000 a year level of income up to age 90.

Here are the assumptions:
- You retire at age 65.
- You are single.
- Inflation averages 4% annually.
- Your Social Security is calculated using current rates.
- Social Security COLA's will average 1.6% annually.
- Your retirement plan account balances earn 5% annually during retirement.

<table>
<thead>
<tr>
<th>Salary At Age 65</th>
<th>Life Expectancy/Nestegg Amount*</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Age 85</td>
</tr>
<tr>
<td>$20,000</td>
<td>$234,000</td>
</tr>
<tr>
<td>$30,000</td>
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<tr>
<td>$40,000</td>
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<td>$90,000</td>
<td>$1,234,962</td>
</tr>
<tr>
<td>$100,000</td>
<td>$1,395,507</td>
</tr>
</tbody>
</table>
There is no try.  
"Do... or do not.  
There is no try."  
– Yoda

The second method employs the asset distribution process outlined in the NPERS “Nest Egg Management” handout. As a general rule of thumb, many financial advisors currently recommend a 4% annual distribution rate from retirement assets. A rough estimate of your nest egg can then be calculated using this rate of distribution. If you anticipate needing $30,000 of annual income during retirement, then you will need a nest egg of approximately $750,000 to provide those funds.

Why are the numbers so different from method one to method two? There are several reasons.

The first method is significantly more complicated and includes Social Security benefits plus the effect of inflation, the second method does not. They also differ in the preservation of your nest egg. Under the first method, your account is depleted upon reaching the age selected for life expectancy. If you die prior to that age there would be funds left. If you lived longer, you would have depleted your nest egg at that age.

The second method, in theory, provides an income of $30,000 per year and retains the initial balance of $750,000 regardless of how long you live.

Which method is “best?” That is a tough question. Under the first, your life expectancy is a critical and unknown factor. Under the second, inflation could create issues later in retirement. Poor investment returns or higher distribution amounts can have a drastic effect on both methods. The mission is not to determine an exact amount, but to determine an initial ballpark figure.

Once you have set your ballpark nest egg goal, now you need to take the steps required to achieve it. Again, there are variables that will come into play.

How long do you have to save? The sooner you start, the easier it will be to reach your goal. Individuals who fail to begin saving at an early age will slowly lose out on the power of compounding interest. Ask yourself, “At what age do I want to begin my retirement and how many years do I have left to save?” The longer you delay, the more difficult it will be to reach those goals.

Once you have established a saving timeline, then you need to estimate how much to save each month. This amount will vary depending on the rate of return you hope to achieve from your investments. Historically, an aggressive strategy will have greater volatility and a higher rate of return over time. Conversely, a conservative approach will result in lower returns but there will be less volatility over time. An aggressive strategy can reduce the amount you need to save each month BUT you need to carefully consider your tolerance for risk and your retirement timeline. Which approach is right for you? Only you can answer that question.

An aggressive portfolio will be a bumpy ride. You must be able to shrug off the temporary reductions in account value that occur during a down market, and resist the urge to panic – and sell. Selling during a down market can turn a temporary reduction in account value into a permanent loss. Professional investors recommend buying rather than selling during these downturns as stock is essentially on sale. Keep in mind how much time you have until retirement. An aggressive investor should consider moving a portion of their investments into more conservative options as they grow closer to retirement.

For more information on the do’s and don’ts of investing, please consider viewing the Investment Education video found on the NPERS website. This video covers the 13 investment options available for the voluntary state’s Deferred Compensation Plan and provides an outline on the basics of investing.

Now let’s put together a few “action plan” examples.

For our example, let’s assume a nest egg goal of $500,000 at age 65. Your personal goal may be higher or lower, but this is what we will use for the example. Using an online savings calculator*, let’s break out the amount for both a ‘conservative’ (4% compounded daily) and “aggressive” (7.5% compounded daily) rate of return.

If you start early at age 25, you have 40 years to save!

<table>
<thead>
<tr>
<th>Method</th>
<th>Annual Rate</th>
<th>Conservative 4%</th>
<th>Aggressive 7.5%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monthly</td>
<td>$164.05</td>
<td>$422.06</td>
<td></td>
</tr>
<tr>
<td>Daily</td>
<td>$5.39</td>
<td>$13.88</td>
<td></td>
</tr>
</tbody>
</table>

If you wait just five years and begin at age 30, now you have 35 years to save.

<table>
<thead>
<tr>
<th>Method</th>
<th>Annual Rate</th>
<th>Conservative 4%</th>
<th>Aggressive 7.5%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monthly</td>
<td>$244.55</td>
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</tr>
<tr>
<td>Daily</td>
<td>$8.04</td>
<td>$17.95</td>
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If you delay until age 40…

<table>
<thead>
<tr>
<th>Method</th>
<th>Annual Rate</th>
<th>Conservative 4%</th>
<th>Aggressive 7.5%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monthly</td>
<td>$567.35</td>
<td>$971.17</td>
<td></td>
</tr>
<tr>
<td>Daily</td>
<td>$18.65</td>
<td>$31.93</td>
<td></td>
</tr>
</tbody>
</table>

There is no way to know the actual rate of return a conservative or aggressive investor will obtain in future markets. Obviously you will never see a fixed rate of return due to market fluctuations. The point is starting early and the investment strategy you select, will both have a significant impact on the amount you need to save.

Each individual is different. It is your responsibility to determine your retirement goal and select an investment strategy/saving rate that will work for you.

*For this article we used the savings calculator found on the Bankrate.com website. Nest Egg numbers were provided by Morey-Voorhees Financial Services, Omaha, Nebraska. Please note NPERS does not endorse any private vendor or entity.
Investment Rebalancing

Successful investors will create an investment strategy based on their personal situation and goals. This strategy determines the percentages of stocks, bonds, or cash (asset allocation) the investor uses in their portfolio.

An investor who chooses an aggressive investment strategy may have a larger percentage of stocks, whereas a conservative investor may allocate a higher percentage of their portfolio to bonds or cash.

Over time, portfolios can grow out of balance. When one fund performs better than the others, it assumes a larger percentage of the portfolio. In order to maintain the desired balance, higher performing fund(s) should be sold and re-invested in lower performing fund(s). This activity, rebalancing, maintains the desired asset allocation and implements the “buy low and sell high” strategy.

The Conservative, Moderate and Aggressive Premixes and the Investor Select funds are rebalanced by the fund managers to maintain their established allocation percentages over time. Members using a combination of the individual funds, such as the Small Company or S&P 500, need to pay a bit more attention in order to maintain the desired allocation.

To simplify the task, the Ameritas/UNIFI online account access offers an automatic rebalancing tool. Members may select a quarterly, semi-annual, or annual time schedule starting from the current date or running on a calendar basis. The Automatic Rebalance Request page will display the current funds and percentages invested in each. The column to the right allows the member to input the asset allocation they wish to maintain. The member may change the asset mix or discontinue the automatic rebalancing with a return visit to the Automatic Rebalance Request page.
Where Did Your Money Go?

For most individuals, the amount they spend has an inverse effect on the amount they save for retirement. Many spend too much and save too little. In order to free up additional funds and save more, it’s important to understand “where the money goes” and set spending limits. The first step in this process involves creating a monthly budget listing all expenditures.

Most expenditures (or debt) fall into one of three categories:

<table>
<thead>
<tr>
<th>FIXED DEBT</th>
<th>MONTHLY EXPENSES</th>
<th>FLEXIBLE EXPENSES</th>
</tr>
</thead>
</table>

**Fixed debt** represents long-term, ongoing payments made to pay off loans (debt) for items such as mortgages, school loans, or car payments. These expenditures generally represent a stable percentage of total monthly expenses. Your remaining income after fixed debt should be enough to cover living expenses with some left over for retirement savings. It is also wise to have cash set aside to pay for any unexpected expenses or financial emergencies.

Acceptable levels of fixed debt can be measured by a “Debt to Income” ratio (DTI). This is determined by calculating the percentage of monthly income (take home) spent on fixed debt. Most financial institutions recommend a DTI ratio no higher than 36%. A DTI of 20% or below is considered excellent. A DTI ratio above 36% makes it difficult to set aside funds for retirement and individuals with DTI ratios at 50% or higher run the risk of missing or defaulting on payments, running up credit card debt, and damaging their credit ratings.

For most Americans, there are three items that account for the majority of fixed debt – mortgages, car loans, and school loans. Many individuals mistakenly assume lenders will not approve loans above and beyond what they can afford. This is not the case. Before signing on the dotted line, calculate the monthly payments for all fixed debts to ensure the DTI ratio remains at or under 36%.

**MORTGAGE**

Houses account for the largest percentage of fixed debt but also represent an investment that over the long term will usually grow in value. Plus, you get to live in them. How much house can you afford? Many lenders recommend total monthly housing expenses (mortgage payments and maintenance)

For most Americans, fixed debt will consume the majority of their lifetime income.
account for no more than 28% of income. When reviewing estimates, be sure they represent the total monthly cost and include items such as property taxes, insurance premiums, mortgage insurance, association dues, etc. Spending a bit more—say up to 33%—may not be a bad idea, but only if other areas of fixed debt can be reduced to keep the DTI ratio under 36%.

SCHOOL LOANS

Money spent on higher education is generally a good investment. Earning a degree can enhance career prospects and increase earning potential, but piling on too much student loan debt can do more harm than good. As tuition continues to increase, it’s becoming more expensive to earn a degree. As of 2012, the total estimated annual cost (includes in-state tuition, fees, room and board) to attend the University of Nebraska–Lincoln is $17,230 (source – CNN Money).

So how much is too much student loan debt? It’s difficult to calculate a DTI ratio as monthly payments will vary depending on the terms of the loan and there is no way to accurately predict future earnings. A ballpark amount can be calculated assuming payments of 10% of gross income averaged over a ten year time span. In other words, an individual who assumes they will earn a total of $500,000 during the ten years following graduation should limit themselves to $50,000 in total student loans.

Again, it’s difficult to calculate a DTI ratio for the above scenario but chances are good the monthly payments will consume at least 15% or more of take home pay. As wages increase over time this percentage will drop, but other fixed debt should be limited during the initial years following graduation to keep the total DTI ratio under 36%.

CAR LOANS

Cars are poor investments. Unlike a properly maintained home, the vast majority of cars will decrease in value over their lifetime. Americans love cars and we often spend more than we should on them. Many auto industry “experts” recommend car payments consume no more than 20% of monthly income. This is too much to allocate on an asset that will depreciate in value. To compound the issue, if mortgage payments are at 28% of income, adding another 20% of debt pushes the DTI ratio to 48%—and that doesn’t include any school loan payments.

To give another perspective, the total purchase price should not exceed one-third of gross annual income. An individual making $30,000 a year (pre-tax) should spend no more than $10,000. Monthly payments vary depending on terms of the loan but generally this will result in a 9% to 11% DTI ratio.

THE TOTAL DTI RATIO

Many individuals will carry mortgage, auto, and school loan debt at the same time. If they follow the above guidelines of 28% for the house, 15% for school loans, and 10% for car loans – this will put them at a DTI of 53%, well over the 36% limit. Generally the mortgage and auto are the two areas of fixed debt that can be adjusted until the school loan is paid off or the salary increases.

Of these three, the car should be the first target when attempting to reduce the percentage of DTI. Individuals with no mortgage payments or school loans (or other forms of fixed debt) may be tempted to spend more than the amount recommended above, but this is not a sound financial decision. Any extra income is much better spent creating a pool of money that can be used for a down payment on a future home purchase, paying for tuition, or saving more for retirement.
There are three financial goals everyone should strive to achieve. Save for retirement, pay off debt, and create an emergency or "rainy day" fund. Saving for retirement and paying off debt are generally at the top of the agenda, but creating an emergency fund is also an important component of a solid financial plan.

The game of life will, on occasion, have detours. Sudden and unexpected events such as the loss of a job, essential repairs to a home or car, or costly medical expenses, can create a severe financial hardship. Individuals who are not financially prepared for these situations run the risk of running up credit card debt, and/or raiding their retirement accounts. Both of those are bad choices. Two better options for these situations are carrying adequate insurance coverage (home, auto, health) and building an emergency fund.

Your first step when creating an emergency fund is determining “how much?” The amount you should stash away will vary depending on monthly expenses. Most financial planners recommend an emergency fund that can cover these expenses for three to six months. Sit down and review your spending habits/bank statements to calculate what you spend each month on essential expenses such as:

- Mortgage or Rent
- Food
- Health Care/Insurance
- Utilities (cable is not an essential utility…)
- Transportation
- Debt payments

This should represent the minimum amount you need to make ends meet each month. Now multiply by three, and you have your starting goal.

Keep in mind the three to six-month rule of thumb may not apply to everyone. You may want to save more if:

- You anticipate difficulty in finding employment if you get laid off.
- You anticipate the possibility of large expenses in the future. Common examples would be recurring health issues, an aging automobile, or a home with a 20-year-old furnace, etc.

A smaller emergency fund may be acceptable if:

- You have substantial dollars left after paying your monthly bills.
- You have excellent insurance coverage.
- You have no or very low debt.
- The equity in your home would allow you to apply for a low interest home equity loan or line of credit.

Now you need to decide where to maintain the fund. It may be tempting to use your current checking or savings account, but most individuals will have better luck creating a separate account. A separate account makes it easier to track the balance and harder to access those funds “on a whim.” In addition, your emergency fund should be maintained in an account that is “liquid” and safe from market fluctuations. Traditionally the simplest approach is to use a basic savings account. You won’t get much in the way of return, but ease of access and stability are your goals for this fund.

There are several options available when searching for a savings account. Be sure to review the interest rates offered. When selecting an account, search for one that is FDIC insured, has low (or no) minimum balance requirements, and no account maintenance fees. Be aware some accounts may offer an introductory interest rate that will be reduced after a set period of time.

Here is the hard part. Getting funds into your account. A sizeable portion of the dollars left after paying essential expenses should go into your emergency fund. Start small if necessary. Small infusions into the account are better than nothing at all. It may help if you can view the emergency fund as a bill you need to pay each month. Consider setting up an automatic deposit into the fund from your paycheck or checking/saving account.

Finally, you should ONLY tap into the fund for appropriate expenses! Resist the urge to spend those dollars for items or situations that are not actual emergencies, and be sure to replenish the fund after you take a withdrawal.
What will the economy be like during your retirement? High inflation? Low Inflation? How will you invest your nest egg and what rate of return will you receive? What tax bracket will you be in during retirement? There are a tremendous number of assumptions and unanswered questions that go into each retirement needs calculation. Oh, we’ve left out the two BIG questions. How fast are you going to spend the money? And when will you die?

Because there are so many variables affecting the final outcome, it is impossible to calculate a retirement nest egg amount that will be exactly right. The chart below is a “ballpark” attempt to “guesstimate” how much money you should have in your account at age 65 to maintain your level of income.

Here are the assumptions:
- You retire at age 65.
- You are single.
- Inflation averages 4% annually.
- Your Social Security is calculated using current rates.
- Social Security COLAs will average 1.6% annually.
- Your retirement plan account earns 5% annually during retirement.

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</tr>
<tr>
<td>$100,000</td>
<td>$1,395,507</td>
</tr>
</tbody>
</table>

How should you read this chart? Assuming you were earning a gross salary of $40,000 when you terminated employment at age 65, if you expect to live to age 90, you want an estimated $659,000 in your retirement accounts. This amount, based on the assumptions, will allow you to maintain your level of income to age 90. If you die before age 90, there would be funds left in your account. If you lived longer, in theory you would have depleted your account at age 90.
To Rollover or Not to Rollover...

At some point you may be advised, “Rolling over your NPERS retirement account to an IRA is in your best interest.” For individuals participating in the Nebraska State & County Retirement plans, there are four reasons why rolling funds to an IRA after terminating employment may NOT be “in your best interest.”

CASH BALANCE ANNUITY RATE

One of the primary benefits of participation in the Cash Balance plan is an annuity rate that is generally higher than rates offered in the private sector. The pooled assets in the Cash Balance Trust allow the plan to pay a higher annuity rate to participants who opt to purchase an annuity. The current Cash Balance annuity rate is 7.75% for Tier 1 members, and 7.5% for Tier 2 members. Cash Balance members may purchase an annuity using all or part of their account at this rate, and in return are guaranteed a stable, monthly benefit.

An individual who rolls their Cash Balance account into an IRA is no longer eligible for the Cash Balance annuity. In addition, Cash Balance provides a guaranteed minimum 5% rate of return to individuals who defer their accounts after termination.

NOTE: Cash Balance Tier 2 rates may fluctuate over time. The Cash Balance annuity rate is locked in at the time of purchase. Annual annuity rates are published in the January State & County newsletter.
FEES

All IRA’s will have some form of fees. The scope and amount depends upon the vendor and the account balance. Many individuals who roll over funds to an IRA are not aware of or do not understand the fees associated with their account. Those who take the time to research these fees often discover they are paying more and significantly higher fees than they were as participants in the state or county retirement plans.

Large entities such as the State of Nebraska have access to institutional pricing, which results in very low investment management fees. Due to the state’s negotiating power, current investment fees for Defined Contribution members range from 0.01% up to 0.38%. Investment fees for the Cash Balance Plan are 0.28% as of the date of this publication. In contrast, investment management fees assessed for private sector mutual funds can often be as high as 1.5% to 2.00%, and additional IRA fees such as sales charges, transaction fees, set-up fees, custodial fees, may also apply. While an IRA will offer more investment options, in most circumstances the driving factor behind poor returns is inappropriate investment decisions – not the lack of investment options.

**NOTE:** Fees are subject to fluctuations. Investment fees for individual funds are listed in NPERS’ Annual Investment Report.

EARLY WITHDRAWAL PENALTIES

In an IRA, participants must wait until age 59½ to avoid federal and state early withdrawal penalties. For Nebraska residents, this can result in a total tax penalty of 13% for distributions taken from an IRA prior to 59½. In contrast, individuals participating in the state or county retirement plans may begin taking distributions without early withdrawal penalties if they terminated their state or county employment during the year they turn 55.

Funds rolled into an IRA are subject to the tax regulations established for IRA accounts. Distributions taken prior to age 59½ may be subject to early withdrawal penalties regardless of when the member terminated state or county employment.

In addition, after termination of employment, distributions taken from the voluntary Deferred Compensation plan are not subject to early withdrawal penalties regardless of age. Once rolled into an IRA, participants must wait until age 59½ to avoid these penalties.

PROTECTION FROM CREDITORS

State laws determine if an IRA is protected from creditors. The amount of protection varies from state to state. Currently, many states do not provide IRA accounts the same level of protection from civil lawsuits found in the state and county retirement plans. Depending on the state of residency, rolling retirement funds into an IRA could result in the garnishment of some or all of the account in the event of a lawsuit.

There may be valid reasons for an individual to roll over funds to a private sector IRA, but this is an important financial decision that should not be made lightly. NPERS strongly recommends our plan members carefully research and fully understand the impact of rolling over their accounts in order to ensure this action is actually “in their best interests.”
ASSET DISTRIBUTION

A common mistake made by many new retirees is spending too much, too soon. Buying new toys and going on extravagant vacations certainly has its appeal, but retirees who expend too many assets at the start of retirement are jeopardizing their future financial security. The goal is to stretch these distributions out so they last over your lifetime.

As a general rule of thumb, many financial advisors currently recommend a 4% annual distribution rate from retirement assets. For example, a $100,000 nest egg would create $4,000 in annual income. Remember, this is not a fixed amount. If distributions and investment losses result in a $90,000 account balance at the end of the year, then next year’s distribution needs to be limited to $3,600. Be aware that multiple years of poor returns, especially in the initial years of retirement, could require a re-evaluation and reduction in distributions.

ASSET ALLOCATION

Most retirees will need to generate some measure of return on their assets during retirement. The amount of return needed will vary, depending on the size of the accumulated nest egg, expenditures during retirement, and the expected longevity of the retiree.

Asset allocations range from aggressive to conservative. In order to obtain higher rates of return, an aggressive investor will expose a larger percentage of their assets to investments with greater volatility. On the other hand, a conservative investor will choose more stable allocation options. The conservative approach has less risk, but generates a lower rate of return over time. Retirees need to find an appropriate asset allocation, balancing risk vs. returns. Retirees with an overly aggressive allocation may have to sell stocks or bonds during a downturn in the market, essentially locking in losses. An overly conservative approach reduces risk, but the lower rate of return over time may create a loss of purchasing power due to inflation.

One way to minimize the damage from a market downturn is by creating an emergency fund of assets in cash or any other low risk and easily liquidated option. This fund should be kept separate from all other assets and contain enough capital to keep you “afloat” for a minimum of two years. During a market downturn you can access these assets to pay your expenses, avoiding the danger of having to sell when the market is low. Once the market has rebounded, be sure to replenish your emergency fund and only tap into these assets during market downturns.

Managing your assets during retirement is essential to maintaining financial security. This can be a complicated process, depending on your individual situation. Selecting an appropriate asset allocation and distribution strategy is a personal decision. Many factors need to be considered as part of the process. NPERS encourages retirees to take the steps necessary to educate themselves. There are several books, classes, and online resources that can help. Some retirees may need to seek help from a professional financial advisor. Some individuals charge for a financial plan and others may charge only for the investments made. Shop around and compare – there are a wide variety of financial services available.
IRA - TRADITIONAL OR ROTH?

If you elect to contribute to an IRA, you must decide if you want utilize a Traditional or Roth IRA. Both are good options to save additional funds for retirement, and both offer tax saving advantages – but is one a better choice than the other? The contribution limits for both options are the same. In order to determine which is the better choice, you need to consider differences in taxation and ask yourself… which option will provide you with the most after tax income during retirement?

A Traditional IRA provides tax savings in the form of “pre-tax” contributions. Money you contribute can be taken as a deduction, which lowers your Adjusted Gross Income and reduces your taxes for that year. The account grows tax-free and when you take distributions, all withdrawals, including contributions and earnings, are subject to state and federal income taxes.

Contributions to a Roth account are made on a “post-tax” basis. You pay taxes up-front and contributions cannot be deducted from your yearly income, but when you reach retirement age both the earnings and contributions can be withdrawn tax-free.

THE GOAL OF “MORE MONEY” – IT’S COMPLICATED...

One of the common assumptions often made is a Roth will provide more money at retirement. This may or may not be true. Let’s compare a Roth vs. a Traditional IRA using an average income tax of 25% and 5% rate of return for each account. When the tax rates and the rates of return are identical, would one option put more dollars in your pocket during retirement?

For this example, both of our savers have reviewed their budgets and determined they can afford to contribute about $75 each month.

The Roth saver will pay taxes first, and then make the monthly post-tax contribution to the IRA. At a 25% tax rate, in order to contribute $75 they must earn $100. $25 will be paid in taxes and the remaining $75 contributed to the Roth IRA. At retirement, the distributions will be tax-free.

The Traditional IRA saver will pay taxes when they take distributions, but because they are not paying taxes up front, the $25 dollars that would have gone to taxes can instead go into the IRA. Their $100 contribution will result in the same $75 reduction as the Roth saver.

Now let’s apply the 5% rate of return over a 20-year timeframe* and then deduct the 25% in taxes the Traditional IRA saver would pay on distributions during retirement. In both examples our savers have earned $100 in income but the Roth saver gives up 25% of this to taxes which reduces the amount they can contribute each month. Our Traditional IRA saver must pay taxes when they take distributions, but if they are taxed at the same 25% rate, they end up with the same $30,827.53. The argument can be made that the Roth saver essentially paid less overall in taxes but what tangible financial benefit did they gain? If both savers contribute an equal amount, say $100, then the Roth does provide more funds at retirement – but failure to increase the contribution rate when participating in a Traditional IRA diminishes the tax benefit it provides.

TAXES – A BIG PART OF THE EQUATION.

So all things being equal, which option is going to provide you the most income for retirement? It all revolves around what percentage you end up paying in taxes. As your Adjusted Gross Income (AGI) increases, so do your tax rates.

<table>
<thead>
<tr>
<th>FILING STATUS SINGLE</th>
<th>2019 AGI BRACKETS</th>
<th>TAX RATE</th>
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</thead>
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<tr>
<td>9,701 – 39,475</td>
<td>Taxed at 12%</td>
<td></td>
</tr>
<tr>
<td>39,476 – 84,200</td>
<td>Taxed at 22%</td>
<td></td>
</tr>
<tr>
<td>84,201 – 160,725</td>
<td>Taxed at 24%</td>
<td></td>
</tr>
<tr>
<td>160,726 – 204,100</td>
<td>Taxed at 32%</td>
<td></td>
</tr>
<tr>
<td>204,101 – 510,300</td>
<td>Taxed at 35%</td>
<td></td>
</tr>
<tr>
<td>510,301 – above</td>
<td>Taxed at 37%</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>ROTH</th>
<th>Post-Tax Monthly Contribution = $75</th>
<th>After 20 years &amp; 5% return = $30,827.53*</th>
<th>Account is tax free = $30,827.53</th>
</tr>
</thead>
<tbody>
<tr>
<td>TRADITIONAL</td>
<td>Pre-Tax Monthly Contribution = $100</td>
<td>After 20 years &amp; 5% return = $41,103.37*</td>
<td>After 25% tax = $30,827.53</td>
</tr>
</tbody>
</table>

NORTH DAKOTA PUBLIC EMPLOYEES RETIREMENT SYSTEMS ANNUAL INVESTMENT REPORT FOR YEAR ENDING DECEMBER 31, 2018
Can you manage your income to pay taxes at a lower rate? If you assume your taxable income during retirement will be lower, it may make sense to take the tax break now by contributing to a Traditional IRA, then pay taxes on the distributions during retirement – at the lower rate. If you believe your taxable income/rate will be higher during retirement, then the tax-free distributions of the Roth may be a better option.

Unfortunately, trying to determine what your income and tax rate will be during retirement is at best, a guess. These brackets represent the 2019 tax code. Your sources/amount of income, deductions, expenses, and future changes to the tax codes will all work for or against you.

**SO MANY THINGS TO CONSIDER…**

How much of your retirement income will come from taxable sources? Will distributions from these accounts push you into a higher tax bracket? During retirement there will be times when you may take a larger than usual distribution to replace an aging automobile or go on that dream vacation. Having funds in a Roth account allows you to cover all or part of those major expenses with tax-free distributions, thereby keeping your taxes in a lower bracket/rate.

You may have fewer items to deduct during retirement. For example, getting the house paid off is a wonderful thing, but how will losing that deduction impact your taxes? On the flip-side, not having monthly mortgage payments may enable you to maintain the same standard of living with less income – potentially maintaining the same (or even a lower) tax rate. Review your current deductions and expenses and consider how they will impact your tax rates and income needs during retirement.

Will Social Security affect your income and tax rates? Under current law, Social Security benefits are subject to income tax at certain income thresholds determined by adding your AGI, plus any nontaxable interest, plus ½ of your annual Social Security benefit. Once you exceed these income limits, either 50% or 85% of your Social Security benefit will be subject to income taxes. The tax rate is determined by the applicable tax bracket: 10%, 12%, 22%, etc. If taxable distributions and earnings are not reduced, adding Social Security benefits to the mix could result in increased taxable income and push you into a higher tax bracket. For some retirees, their Social Security benefits may reduce the need for taxable distributions or earnings, and result in lower taxes.

Roth IRAs do not force a required minimum distribution (RMD) be taken each year but they must be taken from a Traditional IRA. How will these distributions impact your tax rate during retirement? The highest distribution amount begins at age 70½, at which point a retiree with a Traditional IRA would be required to withdraw approximately 3.65% to fulfill the required minimum distribution. For lower or middle income retirees, these withdrawals may not be large enough to push a portion of their income into a higher tax bracket.

Under the current Nebraska tax code, earned income and distributions from a Traditional IRA are subject to state income tax. What if you plan on moving to a state with no state income tax during retirement? If the answer is yes, distributions from a Traditional IRA would be subject to federal but not state income taxes. If that is the case, would you be better off contributing to a Traditional IRA now?

What is your current tax rate? Are you just starting out your career and anticipate earning more as you advance beyond entry level positions? If you fall into the lowest tax bracket now but expect to earn more in the future, then contributing to a Roth may make more sense at this stage of your life. If your income increases to the point where you fall into a higher tax bracket, then switching contributions to a Traditional IRA may become the better option.

What about Medicare premiums? Premiums are based on income, and a large distribution from a Traditional IRA can result in higher premiums. Under current law, distributions taken from a Roth IRA will not count toward these income thresholds.

Do you want to pass an inheritance to your spouse or children? One of the benefits of a Roth IRA is the ability to bequeath those dollars on a tax-free basis. If your heirs’ income tax rates fall into the lower brackets, they may be better off inheriting a Traditional IRA rather than a Roth. Remember the example above – the larger account balance in the Traditional IRA has the potential to provide a greater overall benefit if taxed at a lower rate. Be aware the tax implications of inheriting any IRA can be complicated. Beneficiaries may need professional assistance to limit their tax liability.

**SO WHAT IS THE ANSWER? TRY A BLEND OF BOTH?**

Each individual situation is different and this article only covers a few of the circumstances you may encounter. For many individuals, the best choice might be to employ both a Traditional and Roth IRA. Even if you think your tax rates during retirement will be lower, having a portion of your nest egg in a Roth IRA provides additional flexibility to manage your taxable income during retirement. In the end, there really is no wrong choice! Both Traditional and Roth IRAs are excellent options to save for your future.

*Calculations made using the U.S. Dept of the Treasury “Savings Planner” calculator.*
THE DEFERRED COMPENSATION SAVINGS PLAN

{Adding Peace of Mind to Your Retirement}
The State of Nebraska Deferred Compensation Plan (DCP) is designed to provide your the ability to save additional funds for retirement. Somewhat similar to a Traditional IRA, DCP allows you to make pretax contributions from your paycheck into your DCP account. After termination, you may take distributions from the account as desired.

**DCP BASICS:**
- Participation is voluntary.
- You choose the amount your employer will deduct from each paycheck and divert into your DCP account.
- Contributions are pre-tax and will not be reported as income for the current tax year, thereby lowering your taxes and allowing you to contribute more. Depending on your tax rate, a $100 contribution to DCP may only reduce your paycheck by $75 - $90.
- You decide how to invest your account. Your account balance will fluctuate depending on market performance.
- The administrative, record keeping, and investment fees assessed to DCP accounts are extremely competitive.
- There is no waiting period to enroll. Eligible employees can sign up to participate at any time.
- Lower income employees may qualify for additional tax breaks under the Saver’s Tax Credit.
- You may submit requests to change, stop, or re-start your contributions as desired.
- You can get started by contributing as little as $25 each month.
- DCP contribution limits are much higher than the amounts allowed for an IRA.
- You may defer a sick or vacation leave payout.
- Distributions are subject to state and federal income tax.

DCP is offered to all Nebraska State employees including Judges and Patrol Plan members. For members participating in the County plan, most counties offer a Deferred Compensation plan via the private sector. There are a few counties who have elected to participate in the State plan. County plan members should contact their Payroll/HR department for more information.

As with other tax sheltered retirement plans, there are restrictions on withdrawals. In most instances, you cannot take distributions until you have terminated employment. As such, participation should be considered a long-term investment for retirement and not a short-term savings account.

For more information, please refer to the DCP handbook on our website or contact your HR or payroll department.

$18,500 is the maximum contribution amount for 2018. Individuals age 50 or older can contribute up to $24,500.
DON’T DELAY!
START SAVING NOW

There are two issues that can drastically impact the amount of funds DCP participants will have at termination. Failure to begin participation at an early age and making poor investment choices.

Get Started!

The sooner you start, the easier it will be to amass a sizable nest egg. Individuals who fail to begin saving at an early age will lose out on the power of compounding interest. An individual who puts off saving until age 40 will need to save significantly more each month to obtain the same nest egg as someone who begins at 25. Remember, even if you can’t set aside a sizable amount to contribute to DCP at this stage, saving a little now is much better than saving nothing at all.

It’s amazingly easy to convince yourself you don’t have enough “extra” income to contribute to DCP, but that might not be the case. Sit down and review your checking and credit card accounts to determine where your dollars are getting spent. Are all of these essential expenses? For many individuals, there may be items that could be cut back or eliminated.

For more information on debt and spending habits, please refer to the Where Did Your Money Go? article.

Once you have started contributing, try to save a little more each year. Did you receive a bump in pay due to a raise or change in the payroll taxes? Try to annually increase the amount you contribute – even if it’s only $10 or $20 a month more. In the long run, it will make a difference.

A Couple Investment “Issues”

Two common investment issues that can reduce your account balance are attempting to time the market and choosing overly conservative investment options.

It’s been often repeated, “It’s not timing the market, but TIME IN the market.” Individuals who react to market fluctuations are greatly increasing their risk of reduced returns. In contrast, a knowledgeable investor will develop a long-term investment strategy and stay the course during market turmoil.

For more details on the dangers of market timing, please refer to the One Wild Week article.

The other issue is utilizing conservative investments that over time can create a lower rate of return. Historically, aggressive investments have far greater volatility but also provide a higher rate of return over extended time frames. Conservative investments have significantly less volatility, but on average provide lower rates of return. Investing your DCP dollars in the aggressive investment options can create higher returns, BUT you should carefully consider your tolerance for risk and your retirement timeline.

An aggressive portfolio will be a bumpy ride. You must be able to shrug off the temporary reductions in account value that occur during a down market, and resist the urge to panic – and sell. Selling during a down market will turn a temporary reduction into a permanent loss. Professional investors recommend buying rather than selling during these downturns as stock is essentially on sale.

Conversely, an overly conservative investment strategy can also affect your account. If you have a low risk tolerance, this may be the right choice for you, but the lower returns over time can significantly reduce your account balance.

Which approach is right for you? Only you can answer that question. Keep in mind how much time you have until retirement. If you have 10 or more years to go, you may want to be more aggressive with your investments, BUT a dealing with market downturn as you get closer to retirement can be very stressful. Aggressive investors should consider moving a portion of their account into conservative options as they approach retirement.

To illustrate these two points, let’s compare two investors. We will use an $80 a month contribution beginning at ages 25 and 40, and demonstrate the difference an investment strategy can make by comparing a hypothetical 2.5% “conservative” rate of return vs. a 6% “aggressive” rate of return.*

It’s important to note that due to the pre-tax feature, depending on your tax rate – an $80 contribution to DCP may only reduce your take home pay by $60 to $70...

<table>
<thead>
<tr>
<th>$80 Monthly Starting at 25</th>
<th>40 Years later at age 65...</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conservative 2.5%</td>
<td>Aggressive 6.0%</td>
</tr>
<tr>
<td>$65,978</td>
<td>$160,336</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>$80 Monthly Starting at 40</th>
<th>25 years later at age 65...</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conservative 2.5%</td>
<td>Aggressive 6.0%</td>
</tr>
<tr>
<td>$33,339</td>
<td>$55,698</td>
</tr>
</tbody>
</table>

Our “Aggressive” investor who waited until age 40 contributed a total of $24,000, and ended up with a $55,698 nest egg at age 65. The “Aggressive” investor who began participation at age 25 contributed $38,400 to their account, creating a $160,336 nest egg at 65. Our investor who started early only contributed $14,400 more, but the longer time frame netted them an additional $104,638 to spend during retirement!

There is no way to know the rate of return an investment strategy will obtain in the future. In addition, you will never see a fixed rate of return due to market fluctuations – and historical returns are not a guarantee of future performance. The point is... starting early and the investment strategy you select will both have a significant impact on your account balance at retirement. Each individual is different. It is your responsibility to determine your retirement goal and select an investment strategy/saving rate that will work for you.
*There is no set formula that defines an aggressive or conservative investment strategy. Rates of return are for illustrative purposes only, and your rates of return will vary. To calculate account balances, we utilized the savings calculator found on the Investor.gov website using a daily rate of compounding and a starting balance of $0.01.*
ENROLLING IN DCP

You can request to enroll at any time by submitting a DCP Enrollment form to your agency payroll department. The enrollment form must be submitted to them first in order to set up your payroll deduction. After your payroll department has completed this process, they will forward the form to NPERS for final processing. The calendar month after NPERS receives the completed form is when your participation and contributions to DCP will begin.

Please remember to complete a Beneficiary Designation form when enrolling in DCP. The beneficiary form you filled out for your mandatory retirement plan does not transfer to your voluntary DCP account. You must submit a new form to designate beneficiaries for your new DCP account. When completing the beneficiary form, please note the six boxes in the upper right corner of the form. If you wish to designate the same beneficiaries for your mandatory and DCP account, you can check both boxes.

Unlike the DCP Enrollment form which must go to your HR department, beneficiary forms can be sent directly to NPERS. DCP participants who fail to submit a beneficiary form will have death benefits paid to their estate in a lump sum, which can create unwanted tax liabilities.

After you have started participation, you may change, stop, or re-start your payroll deductions to DCP by completing a DCP Plan Change form. Submit this form to your payroll department if you are making changes to contribution amounts or deferring unused leave. They will sign the form and forward it to NPERS for processing. If you are only making changes to investment elections or transfers, you may submit this form directly to NPERS.

Unless the DCP Change Form specifies a later effective date, all changes to DCP, including updating or ceasing contributions, will be effective the calendar month following NPERS’ receipt of your DCP Change Form. Changes made to investment elections and transfers will be processed within three business days of receipt of the DCP Change Form.

To obtain DCP or Beneficiary forms, please contact your agency payroll/HR department, or access them via the NPERS website.

DCP DEFERRAL OF UNUSED LEAVE

At termination/retirement, you may be eligible for a payout of unused sick and vacation leave. It’s nice to receive these payments, but they will count as income for that year and be subject to state and federal income taxes. If you are eligible for a fairly large payout, these dollars could push a portion of your income into a higher tax bracket, increasing the percentage of income tax due that year.

To help manage this tax liability, you may elect to contribute unused sick and vacation leave payments into your DCP account. Contributions to DCP are made on a “pre-tax” basis and not counted as income or subject to income taxes. Distributions from the account will be subject to State and Federal income taxes, but delaying them to a later date gives you the ability to spread out withdrawals over time. Distributions from DCP can be delayed up to age 70½ at which point the account will be subject to required minimum distributions per the federal tax code.

To defer unused leave:

1. Complete and submit the appropriate DCP Enrollment/Change Form to your payroll or HR representative. We recommend making a copy for your records.
2. Your payroll or HR representative must sign and forward your form to NPERS.
3. NPERS must receive your DCP Enrollment/Change Form the calendar month prior to your date of termination! We recommend consulting with your payroll/HR staff well in advance of your termination date in order to understand the process, and meet this deadline.

Sick or vacation leave deferrals are subject to annual contribution limits. If the exact dollar amount of your unused leave payout is not known at the time you complete the form, you may estimate the amount.
Saver’s Tax Credit

Did you know contributing additional dollars for retirement may reduce your taxes?

Did you know contributing to either a 403(b) or 457 (Deferred Compensation) retirement plan may significantly reduce your taxes? Low and moderate income employees who make voluntary contributions to an employer sponsored retirement plan or individual retirement arrangement (IRA) may qualify for a “Saver’s Tax Credit” of up to $1,000 per individual ($2,000 if filing jointly).

Eligibility and the amount of the credit are determined by filing status and adjusted gross income (AGI).

FILING STATUS/ADJUSTED GROSS INCOME LIMITS FOR 2019

<table>
<thead>
<tr>
<th>CREDIT RATE</th>
<th>JOINT</th>
<th>HEAD OF HOUSEHOLD</th>
<th>SINGLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>50%</td>
<td>$0 to $38,500</td>
<td>$0 to $28,875</td>
<td>$0 to $19,250</td>
</tr>
<tr>
<td>20%</td>
<td>$38,501 to $41,500</td>
<td>$28,876 to $31,125</td>
<td>$19,251 to $20,750</td>
</tr>
<tr>
<td>10%</td>
<td>$41,5801 to $63,000</td>
<td>$31,126 to $48,000</td>
<td>$20,751 to $32,000</td>
</tr>
</tbody>
</table>

For example, a couple filing a joint return with an AGI of $38,500 or less is eligible for the 50% rate. If both contributed $2,000 (or more) to a qualified plan, both would receive the maximum $1,000 Saver’s Credit. If their AGI was a bit higher at $40,000, they move to the 20% bracket and both would receive a $400 credit.

Don’t confuse tax “credits” with “deductions.” A deduction reduces the amount of your taxable income and you pay taxes on the remaining income at a percentage based on the IRS tax brackets. A credit reduces the final amount of taxes you owe dollar for dollar and provides significantly better savings. Even better, contributions made to a 403(b) or Deferred Compensation account will reduce your AGI and may help you qualify for a higher Saver’s Tax Credit.
Ameritas Online Access & Changing Your Investments

The quickest way to make investment elections/transfers is via the Ameritas Online account access. Changes may be submitted using the Investment Election or DCP Change forms, but be aware these forms may take up to three business days to process after we have received the form. Investment elections and transfers made using the Ameritas Online access are processed at the end of the market day. In addition, the online access provides a wealth of information on your account, including investment performance for specific time frames using the Online Statements link found in the Plan Documents drop down.

In addition, an Ameritas online account allows access to the record-keeping data Ameritas maintains for your account including account balances and access to quarterly statements.

Go Green With Electronic Statements

Individuals who have created an Ameritas online account have the option to receive confirmation notices and quarterly account statement notifications via email. This is the quickest and most convenient way to get these documents, it allows you to avoid the quarterly mailing fees, and it’s environmentally friendly!

To sign up for eDelivery, if you do not have Ameritas online access, the first step is creating an account. You may access step-by-step instructions by clicking on the blue “Ameritas Online Account Access” button found on the NPERS website homepage. Then click on the “New users” link for detailed instructions on creating a new account.

Once you have created an online account, login to your Ameritas access. Select the specific account you wish to open from the “Summary of Accounts” page. At the right side of the “Account Summary” page is the “I want to…” section. Click on the link titled “Sign up for eDelivery.”

This link will direct you to the page where you can add or edit your email and enable electronic delivery.
SEMINARS

NPERS’ full day seminars are presented across Nebraska for State and County employees and their guests. Eligible members may receive paid leave to attend up to two Financial Management and two Retirement Planning seminars. Registration brochures are mailed approximately four weeks prior to the seminars and may also be downloaded from the NPERS website.

FINANCIAL MANAGEMENT SEMINARS
(For members Under Age 50)

Tailored specifically for younger members, this program provides a basic overview of both the mandatory and voluntary retirement plans offered to State and County members, the 13 investment options used for Defined Contribution and DCP, and an hour-long presentation from an estate planning attorney. The bulk of the program is dedicated to "The Complete Financial Management Workshop," which is presented by a licensed financial planner. This workshop is a detailed program that provides a wealth of information designed to assist individuals in assessing their personal financial situation, set goals, and map out the proper course of action to achieve financial security.

The Complete Financial Management Workshop includes:

<table>
<thead>
<tr>
<th>Topic</th>
<th>Description</th>
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<tbody>
<tr>
<td>Risk Management</td>
<td>How to protect your assets.</td>
</tr>
<tr>
<td>Cash Management</td>
<td>Managing your income, budgeting, avoiding debt, improving credit scores.</td>
</tr>
<tr>
<td>Investment Concepts</td>
<td>Basic steps to smart investing.</td>
</tr>
<tr>
<td>Tax Management</td>
<td>Are you paying too much?</td>
</tr>
<tr>
<td>Retirement Planning</td>
<td>How much will you need and how to properly save for retirement.</td>
</tr>
</tbody>
</table>

RETIREMENT PLANNING SEMINARS
(For Members Age 50 and Older)

For members who are approaching retirement, this program covers the State and County retirement plans with the focus on options at retirement.

The Retirement Seminar Includes:

- Comprehensive information regarding the mandatory and voluntary retirement plans, and distribution options at retirement.
- A one-hour Medicare presentation.
- A basic overview of Social Security.
- A one-hour Estate Planning presentation.
- Condensed information on health insurance.

VIDEOS

NPERS currently offers two educational videos for plan members. Members may contact our office to request videos in DVD format, or they may watch/download them from our website.

Investment Education

This video covers the 13 investment options offered to Defined Contribution and Deferred Compensation participants, and provides additional information on how to make informed investment decisions.

Retirement 101

The Retirement 101 video explains the basics of the State and County Defined Contribution and Cash Balance plans.

WEBSITE

Visitors to the NPERS website, npers.ne.gov, may access a wide variety of plan information including:

- Educational Videos
- Forms
- Financial Planning/Investment Information
- Member Handbooks and Newsletters
- NPERS Annuity Estimator
ONLINE ACCOUNT ACCESS

There are two separate and distinct options for online account access, NPERS and Ameritas. Members who create an online account have various functionality depending on their account status, plan membership, and which online access they are utilizing. Some plan members may wish to create an NPERS and Ameritas account depending on their needs. NPERS and Ameritas online access links are available on the NPERS home page at npers.ne.gov.

NPERS ONLINE ACCESS

The NPERS online account access is available for members of ALL the plans administered in our office. Creating an NPERS online account allows members to access and update the membership data we maintain “inhouse.”

Retired Members

Retired members may:
- Change tax withholding on annuity payments.
- View benefit information.
- View and print annual tax statements (1099R).
- Change their email address.
- Review beneficiary information (see note below).

Active Members

Active members (individuals who are still actively employed with a plan sponsor) may:
- Review benefit information (see note below).
- Change their email address.

Inactive Members

Inactive Members (individuals who have terminated employment with a plan sponsor but have not started receiving a benefit) may:
- Review beneficiary information (see note below).
- Change their physical mailing address.
- Change their email address.

NOTE: Beneficiary information may not display for individuals who have beneficiary forms on file that are more than 15 years old. These forms are still valid but not yet entered into our computer system. If you wish to enable online review, please submit a new beneficiary form to our office.

AMERITAS ONLINE ACCESS

The Ameritas online account access is only for members of the State, County, Deferred Compensation, and State Patrol DROP plans. Creating an Ameritas online account allows access to the record-keeping data Ameritas maintains for these plans.

Members who create an account have the following functionality:
- Review account balances.
- Review or change investment elections and allocations (not available for Cash Balance).
- Review investment performance.
- Review and print copies of quarterly statements.
- Change their email address. This will not change the email address for an NPERS online account.

VOICE ACCOUNT ACCESS

For account balance information only, you may also use Ameritas’ automated voice response system at 800-449-2696 or 402-467-6925.

ADMINISTRATIVE QUESTIONS

For administrative questions, you may contact the NPERS office.

NPERS
Nebraska Public Employees Retirement Systems
1526 “K” St., Suite 400
P.O. Box 94816
Lincoln, NE 68509-4816

Telephone: 402-471-2053
Toll Free: 800-245-5712
Fax: 402-471-9493
Online: npers.ne.gov
GLOSSARY OF TERMS

457 PLAN
A non-qualified, deferred compensation plan established by state and local governments into which eligible employees are allowed to make salary deferral contributions. Earnings grow on a tax-deferred basis and contributions are not taxed until the assets are distributed from the plan. The participant directs the investments in their account using the investment options provided.

ACCUMULATION GOAL
A goal that will require the use of your savings or investments. The purpose of the goal planning analysis is to determine if you have accumulated sufficient funds to meet your goals. If you do not have sufficient funds already set aside, the system will determine the necessary monthly amount that will need to be invested to meet the goal.

ANNUAL RETURN
The return earned by an investment during a one-year period.

ANNUALIZED RETURN
The total return earned by an investment over a multiple-year period and reported as the average annual return that would need to be earned each year of the period to attain the total performance of the investment.

ASSET
Any item of economic value. Examples are cash, stocks, bonds, U.S. Treasury notes, accounts receivable, inventory, office equipment, a house, a car, and other property.

ASSET ALLOCATION
The process of dividing investments among different kinds of assets, such as stocks, bonds, real estate, and cash, to optimize the risk/reward tradeoff based on an individual's specific situation and goals. Often more conservative investments (less volatility—lower returns) to balance more aggressive investments (more volatility—more returns.)

BALANCED FUND
A mutual fund that buys a combination of common stocks, preferred stocks, bonds, and short-term bonds, to provide both income and capital appreciation while avoiding excessive risk.

BEAR MARKET
A prolonged period of falling prices, usually by 20% or more, accompanied by widespread pessimism. It is called a "correction," it is short and is followed immediately by a period of rising inflation.

BENCHMARK
A standard, a reference point used for comparison. For example, many stock funds are compared to the performance of the S&P 500. Bond funds are compared to a bond index. A benchmark is given for each investment option in your plan.

BONDS
A debt security issued for a period of more than one year with the purpose of raising money by borrowing. The Federal government, states, cities, corporations, and many other types of institutions sell bonds to raise money. A bond is a promise to repay the principal along with interest on a specified date (maturity).

BULL MARKET
A prolonged period of rising prices, usually by 20% or more accompanied by wide spread optimism.

CASH EQUIVALENT
A highly liquid, very safe investment which can be easily converted into cash, such as Treasury Bills and money market funds.

CERTIFICATE OF DEPOSIT (CD)
A short or medium term, interest-bearing, FDIC-insured investment offered by banks, savings and loans, and can be purchased through a brokerage firm. CDs offer higher rates of return than most liquid investments, in exchange for tying up invested money for the duration of the certificate's maturity. Money removed before maturity is subject to a penalty. CDs are low risk, low return investments, and are also known as "time deposits," because the account holder has agreed to keep the money in the account for a specified amount of time, anywhere from three months to six years.

CORPORATE BONDS
A bond issued by a corporation; a corporation borrowing money with the promise to pay back typically at a higher interest rate.

DIVERSIFIED
An investment is said to be “diversified” if it owns a number of different investments or asset classes, in order to spread risk.

DOLLAR COST AVERAGING
An investment strategy designed to reduce volatility in which securities, typically mutual funds, are purchased in fixed dollar amounts at regular intervals, regardless of what direction the market is moving.

EQUITIES
Same as stock; indicates ownership, i.e., equity in your home or equity shares (stock) in a company.
GLOSSARY

FIDUCIARY
A person with the authority to make decisions regarding a plan's assets or important administrative matters. Fiduciaries are required to make decisions based solely on the best interests of plan participants.

FIXED INCOME
A security that pays a specific interest rate, such as a bond, money market instrument, or preferred stock.

GROWTH STOCK
Stock of a company which is growing earnings and/or revenue faster than its industry or the overall market. Such companies usually pay little or no dividends, preferring to use the income instead to finance further expansion.

GUARANTEED INVESTMENT CONTRACT (GIC)
Debt instrument issued by an insurance company, usually in a large denomination, and often bought for retirement plans. The interest rate paid is guaranteed, but the principal is not.

HISTORICAL RETURNS: UNPREDICTABILITY OF FUTURE PERFORMANCE
Risk of loss of principal must be considered along with other risks such as inflationary risk (loss of purchasing power due to an investment's return being lower than the rate of inflation), timing risk (selling at the wrong time), market risk (price fluctuations due to price volatility in overall market), credit risk (risk of default of bond issue), liquidity risk (inability to liquidate or readily sell a security), etc. An investor should evaluate the level of risk of each investment and his/her level of comfort with such risks. Each of these risks can be greatly reduced by utilizing the benefits of a well diversified portfolio, rebalancing and avoiding market timing.

HYPOTHETICAL RETURN
The return an investment is hypothetical to earn in the next year. It is generally reported as the average historical return over a multiple year period.

IRA
An Individual Retirement Account permitting individuals to make an annual contribution, with earnings tax-deferred until withdrawals begin at age 59½ (earlier with a 10% penalty) or later. Only those who do not participate in a pension plan at work or who do participate and meet certain income guidelines can make deductible contributions to an IRA. All others can make contributions to an IRA on a non-deductible basis. Annual distributions must start at age 70½.

INDEX PROXY
Each asset class is assigned a proxy market index (see Market Index) that is most representative of that particular asset class. This index proxy should exhibit underlying financial characteristics similar to those of the asset class. You will find the appropriate proxy for each of the options offered in the State Plan, County Plan, and Deferred Compensation Plan.

INTERNATIONAL MARKETS
International market investments involve additional risks including, but not limited to, currency fluctuations, differing financial accounting standards and possible political and economic instability.

INTEREST CREDIT RATE
Rate established in Nebraska statutes as the greater of 5%, or the applicable federal mid-term rate plus 1.5% for Cash Balance accounts.

LIFE CYCLE FUNDS
Funds that change their mix of stocks and bonds over time based on age or years to retirement.

LIQUIDITY
The ability of an investment asset to be converted into cash quickly.

LONGEVITY
Living longer than expected can be a problem if you are using assets to fund retirement. If your assets run out before you die, you may not be able to support yourself. Longevity planning should include an evaluation of how long your family members before you have lived. If you have a history of longevity in your family, you should plan for a long life expectancy.

MARKET INDEX
Any recognized economic or financial indicator used to evaluate and measure changes in value over the short-term and the long-term.

MARKET RISK
Risk which is common to an entire class of assets. Risk that cannot be eliminated by diversification.

MATCHING CONTRIBUTION
A contribution made by the State of Nebraska or the appropriate county to the account of the participant in a ratio determined by statute.

PLAN YEAR
The calendar, policy or fiscal year for which plan records are maintained.

QUALIFIED DOMESTIC RELATIONS ORDER (QDRO)
A judgment, decree or order that creates or recognizes an alternate payee's (such as former spouse, child, etc.) right to receive all or a portion of a participant's retirement plan benefits.
**RETIREMENT IN FACT**
When a member of the Deferred Retirement Option Plan (DROP) notifies the State Patrol Office that they have ceased employment and the State Patrol Office has submitted to NPERS a *State Patrol Notice of Termination Form for DROP Participants*, the member is considered to have “retired in fact.”
Upon “retirement in fact,” monthly retirement benefits cease to be deposited pre-tax into the DROP account and are instead issued directly to the member. Accumulated DROP funds may be distributed as a lump sum distribution, a rollover into another qualified retirement plan, or a combination of the two. The entire account must be distributed and may not be deferred.

**RETIREMENT NEEDS**
Retirement needs consist of a basic (and any additional) spending goals. The basic spending goal is assumed to continue until death. For married couples, the basic spending goal continues beyond the first to die until the surviving partner’s death, and then may be adjusted at the first death.

**RETIREMENT PERIOD**
The period that begins when an individual quits working (retires) and continues until death. In this analysis, a married couple’s retirement period is assumed to begin when the first partner retires and continues until the longer of the partner’s life expectancies.

**RISK TOLERANCE**
An investor’s ability to handle declines in the value of his/her portfolio while waiting for them to increase.

**ROLLOVER**
The action of moving plan assets from one qualified plan to another or to an IRA within 60 days of distributions, while retaining the tax benefits of a qualified plan.

**ROTH IRA**
A form of IRA, established by the Taxpayer Relief Act of 1997, which allows taxpayers to grow their retirement savings tax-free. Contributions are made after taxes and withdrawals of principal and earnings, subject to certain rules, are tax-free.

**SMALLER COMPANY STOCKS**
Small company stocks generally involve greater risks than larger, more established companies.

**SYNTHETIC INVESTMENT CONTRACT (SIC)**
A variety of stable value products which substitute for GICs in defined contribution plans and offer book value participant withdrawals. The contract includes an asset ownership component and some form of book value “wrap,” maintaining participant accounts at book value. The assets backing the contract, usually high-grade securities, are owned by the plan and held in a trust account or custody account for the plan. The plan sponsor relies on the credit of the wrap issuer to support the book value guarantee.

**SOCIAL SECURITY**
Social Security retirement benefits are paid to a qualifying individual every month after the benefits begin, until that person dies. Benefits may begin any time after a qualifying individual reaches age 62. However, benefits will be reduced if they begin before the individual reaches full benefit age.

**TAX DEFERRED**
Income whose taxes and earnings can be postponed until a later date. Examples include IRAs, 401(k)s, Keogh Plans, annuities, and Savings Bonds.

**TIME HORIZON**
The amount of time an investment is held. Asset allocation planning focuses on the long-term financial objectives of an investor. A growth-oriented asset allocation plan will produce years with losses. In the past, the acceptance of short-term risks has been rewarded with high long-term returns.

**TOTAL RETURN**
The total return measured by combining the total income received (yield) and all capital appreciation from an investment over the entire holding period of that investment.

**VALUE STOCK**
A stock that may represent an older company, with steadier growth of earning. Often these companies do not need to reinvest all of the earnings back into the company so the shareholders are paid a cash dividend. Value stocks typically sell at lower prices in relation to earnings than do growth stocks.

**YIELD**
The income return (through interest or dividends) on an investment. Usually expressed annually as a percentage based on the investment’s cost, its current market value or its face value.