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# Investment Program Recommendations

## The California HOPE for Children Trust Account Program

February 25, 2025

# Objective & Decisions Points

## RVK recommendations will cover the below areas of the HOPE Program.

RVK will be reviewing the following investment analysis and recommendations for the California HOPE for Children Trust Account Program (HOPE Program):

1. Investment Structure
2. Initial Investment Strategy
3. Intergenerational Equity Objective & Analysis
4. Target Dollar Distribution per Child at Age 18

# HOPE Program Investment Objectives and Constraints

## Potential challenges include annual funding without an inflation adjustment and unknown future participant numbers.

### Program Objectives

- Provide $4,500 (or another target amount) to every enrolled child at age 18, adjusted for inflation.
- Pursuing intergenerational equity in purchasing power among all enrolled children, within the same and across different age groups.

### Investment Objectives

1. Provide stable, income-generating investment growth for ages 0-17, keeping up with inflation.
2. Provide a stable, liquid, income-generating investment option until withdrawal for ages 18-26.

### Program Constraints

- Unknown population and demographics.
  - Initial total population
  - Total enrolled children turning 18 each year
  - Additional enrolled children each year
- Unknown withdrawal date after each enrolled child turns 18 (up to age 26).

### Investment Constraints

1. PMIA investment statutes.
   - Buy & hold investment approach.
2. $14.25m/year to be received and invested is not adjusted for inflation.

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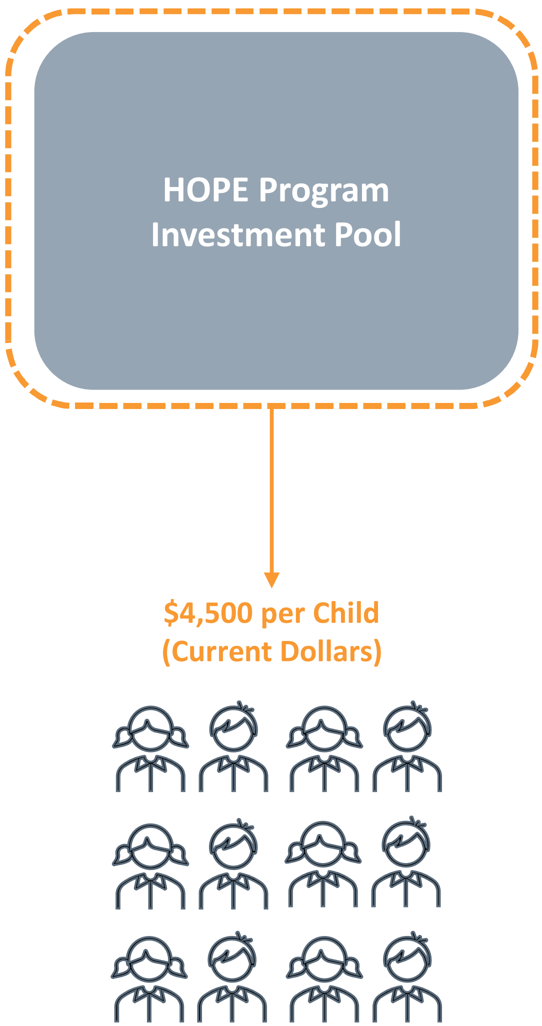
# Pooled Model (Permanent Fund Approach)

## Pooling investment assets supports equity and future scalability of the HOPE Program.




Visual is shown for illustrative purposes only.

### Potential Benefits vs. Individual Account Structure

- ✓ Can achieve equity amongst all enrolled children within the same age group, regardless of enrollment date.
- ✓ Can achieve equity across all enrolled children of different ages, adjusting $4,500 for inflation each year.
- ✓ Less administratively complex to manage and monitor.
- ✓ Supports ability to scale the program in the future.
- ✓ Market/investment risk before age 18 assumed by the HOPE Program and Board.
- ✓ Can report a single performance number for the investment pool, without the need to calculate custom investment returns for each enrolled child prior to age 18.

### Potential Drawbacks vs. Individual Account Structure

- Estimated future payout amounts will be presented online to enrolled children (and guardians) prior to age 18. “Live” balances will be available only to enrolled children after age 18.
- Removes the potential for some age groups to earn more than $4,500 (adjusted for inflation) by age 18.
- The Board will need to regularly monitor the investment pool’s ability to preserve long-term purchasing power.

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# Potential Investment Content for Web Account Views

## Two different web account views for those under age 18 and age 18 or above.

### View 1: Ages 0-17

**View date: 09/01/2029**

Enrollee Name: Marco M.
DOB: 02/11/2019 Age: 10 Years Old
HOPE Account Number ###
Enrolled: 07/01/2025

Eligible Benefit Date: 02/11/2037

Estimated Benefit Amount*: $X,000 to $X,000
**Estimated range is subject to change.*

HOPE Yield as of 08/31/2029: 4.10%

### View 2: Ages 18-26 (Live Account Balances)

**View date: 09/01/2029**

Enrollee Name: Sandra S.
DOB: 10/10/2008 Age: 19 Years Old
HOPE Account Number ###
Enrolled: 09/01/2025

Eligible Benefit Date: 10/10/2026
Benefit Amount Received: $4,612.50
Benefit To Be Withdrawn By: 10/10/2034

Account Balance as of 08/31/2029:$4,798.24

Current Yield as of 08/31/2029: 3.75%

Visual is shown for illustrative purposes only. Web account view specifics are subject to change, following discussions with the Program Administrator.

# Initial Investment Strategy

# Initial Investment Opportunity Set: PMIA Investment Guidelines

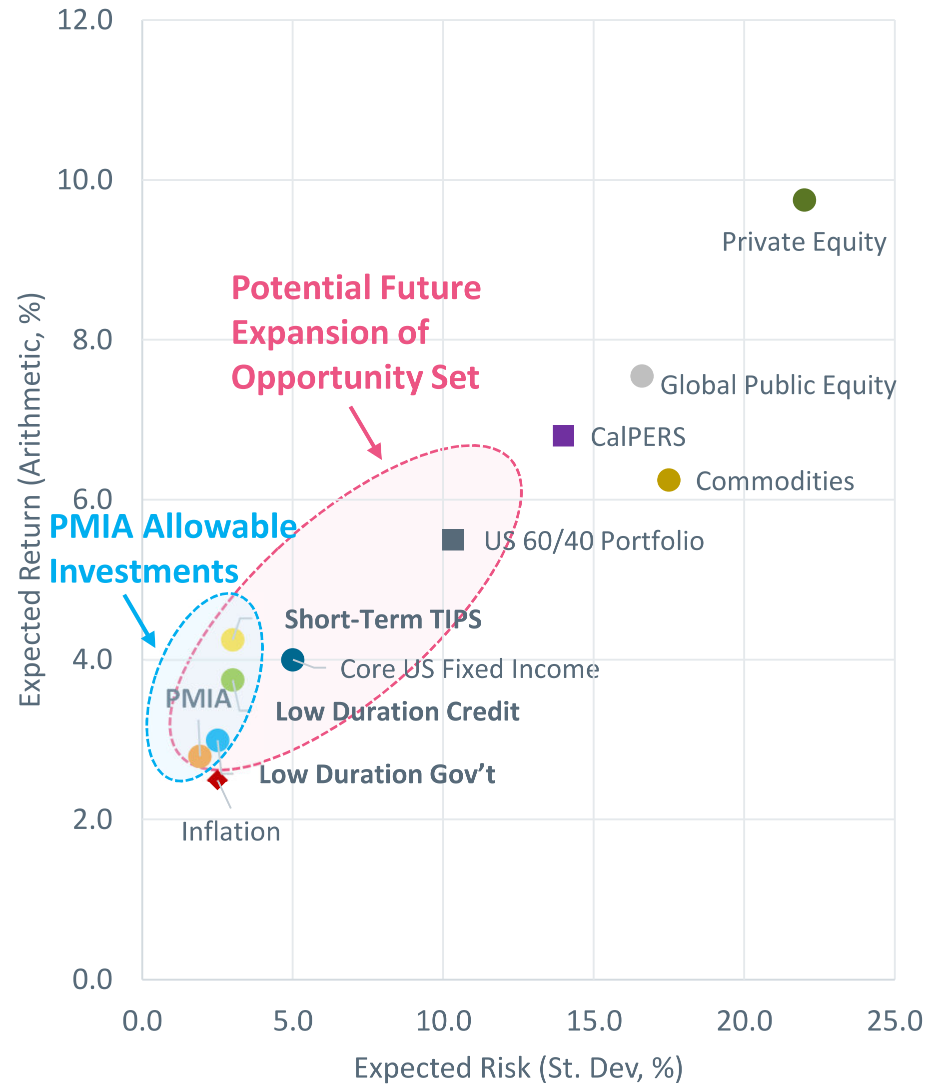
## Currently constrained to PMIA Guidelines, future opportunity set may be expanded.

### PMIA Investment Policy: Allowable Investments

| Investment Type | Maximum Maturity | Maximum % of Portfolio | Maximum Per Name | Maximum Per Maturity |
|---|---|---|---|---|
| Agencies (Federal and Supranational) | 5 years | None | None | None |
| Bankers Acceptances (Domestic and Foreign) | 180 days | None | None | None |
| Certificates of Deposits | 5 years | None | None | None |
| Collateralized Time Deposits | 1 year | None | (1) | None |
| Commercial Paper | 270 days | 30% | 10% | None |
| Corporate Bonds/Notes | 5 years | None | None | None |
| Foreign Government Bonds/Notes | 5 years | 1% | None | None |
| Money Market Mutual Funds | Open ended | 10% | 10% | None |
| Negotiable Order of Withdrawal (NOW) Accounts | Open ended | 5% | (3) | None |
| Repurchases (RP) and Reverse Repurchases (RRP) | 1 year | (2) | None | None |
| U.S. Treasury Securities | 5 years | None | None | None |

(1) Shall not exceed the net worth of the institution or an amount considered prudent; whichever is less.
(2) RRP is limited to 10% of the current portfolio.
(3) Shall not exceed the net worth of the institution.

### 2024 RVK Capital Market Assumptions




Expected return and risk shown for CalPERS is provided by CalPERS. All other portfolios and asset classes shown reflect 2024 RVK Capital Market Assumptions.
Allowable investments and opportunity set circles are for illustrative purposes only and are not an exact representation.
Source: PMIA Investment Policy, January 1, 2024. Please see the appendix for full details of the PMIA Statutes.

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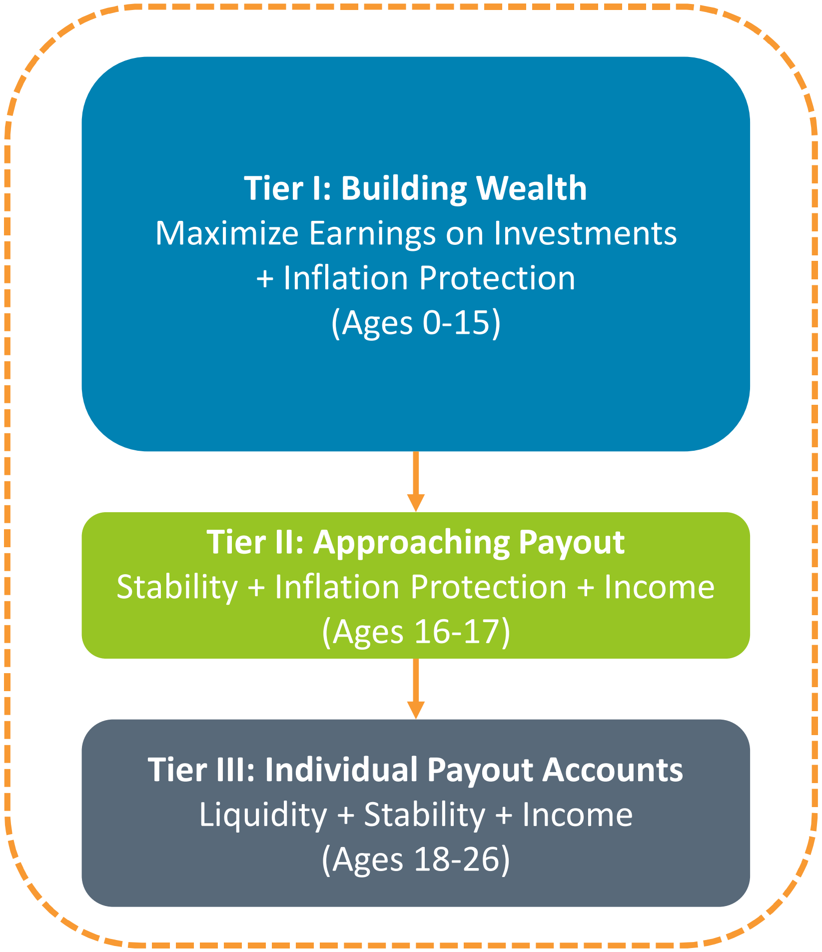
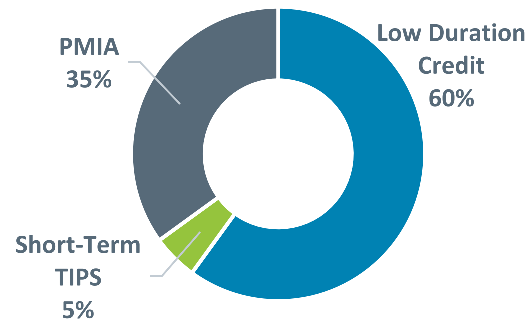
# Initial Investment Strategy Recommendation

## The tiers offer higher yielding investments for future payouts and increased stability and inflation protection for upcoming payouts.

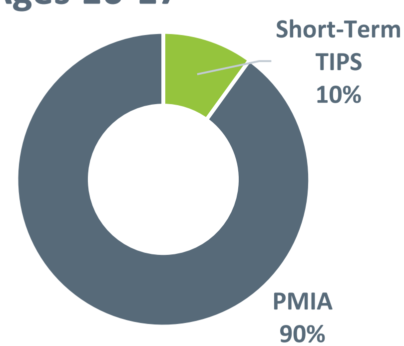
### HOPE Program Investment Assets



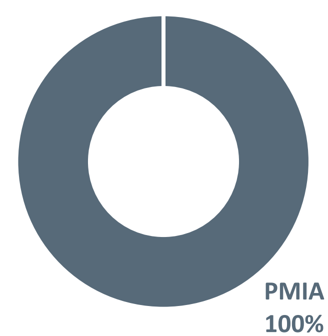

### Potential Tier I: Ages 0-15




### Potential Tier II: Ages 16-17




### Potential Tier III: Ages 18+




**All potential tier allocations are within current PMIA Investment Guidelines.**

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# Initial Investment Strategy Recommendation

## Each tier is likely to provide a return above inflation over a 10-year period.

| | Potential Tier I | Potential Tier II | Potential Tier III |
|---|---|---|---|
| Low Duration Credit | 60 | -- | -- |
| Short-Term TIPS | 5 | 10 | -- |
| PMIA | 35 | 90 | 100 |
| Total | 100 | 100 | 100 |
| | | | |
| **Expected Arithmetic Return** | **3.44** | **2.95** | **2.80** |
| **Expected Risk (Standard Deviation)** | **2.16** | **1.83** | **1.92** |
| **Expected Compound Return** | **3.42** | **2.93** | **2.78** |
| | | | |
| Expected Return (Arith.)/Risk Ratio | 1.59 | 1.61 | 1.46 |
| RVK Expected Eq Beta (LCUS Eq = 1) | 0.05 | 0.02 | 0.01 |
| Estimated Yield (%) | 4.64 | 4.43 | 4.43 |
| **Monte Carlo Simulations** | | | |
| 1-Year Maximum Drawdown (Nominal) | -1.22 | -1.08 | -1.55 |
| 10-Year Median Return (Nominal) | 3.38 | 2.95 | 2.79 |
| Probability of >0% Real Return Over 10 Years (%) | 82 | 69 | 63 |
| Probability of >0.5% Real Return Over 10 Years (%) | 65 | 48 | 42 |

Estimated yields are as of December 31, 2024, and are based on underlying benchmark figures for all assets excluding PMIA. Estimated yield for PMIA is the actual reported yield as of 12/31/2024. 1-year maximum drawdown returns reflect the 1-year, 1st percentile return. See the appendix for additional efficient frontier details and statistics.

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# Historical PMIA Yields

## PMIA yields are strongly correlated to the Federal Funds Effective Rate.

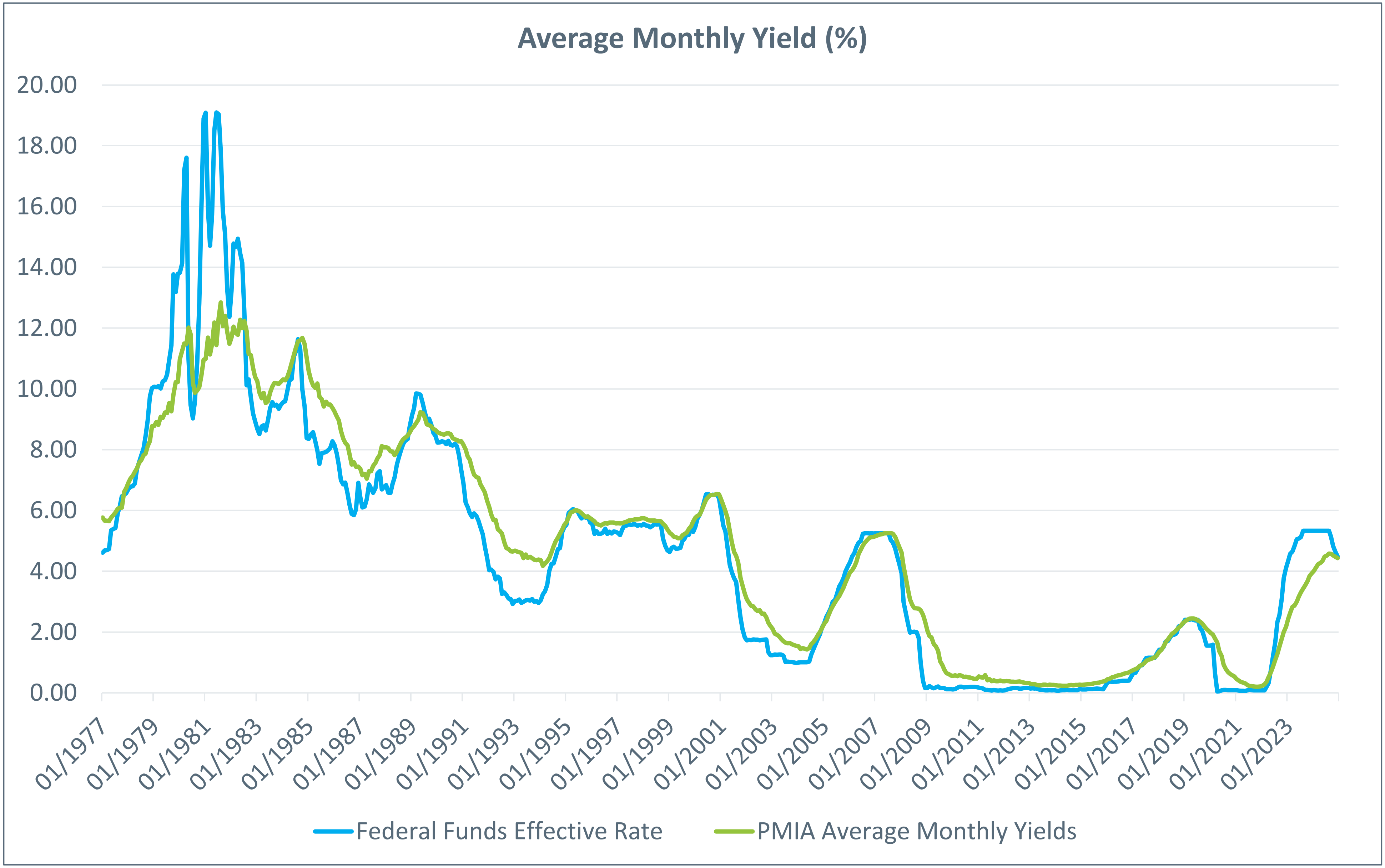


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Chart Source: Federal Reserve Bank of St. Louis and California State Treasurer.

# Map of Initial Investment Funds at HOPE Program Launch

## Initial tier amounts to be determined by population estimates for each age cohort.

**HOPE Program Investment Assets**
**(~$138.55 million)**

**Tier I: Building Wealth**
Maximize Earnings on Investments
+ Inflation Protection
(Ages 0-15)
**~$72.7 million (53%)**

**Tier II: Approaching Payout**
Stability + Inflation Protection + Income
(Ages 16-17)
**~$26.7 million (19%)**

**Tier III: Individual Payout Accounts**
Liquidity + Stability + Income
(Ages 18-26)
**~$39.1 million (28%)**

### Initial Investment Distribution

#### Tier I: Ages 0-15

- Remaining investment assets available, after determining appropriate amounts for Tiers II and III. **Approximately $72.7 million (53%) at Program launch.**

#### Tier II: Ages 16-17

- Number of estimated eligible children, ages 16-17, adjusted for investment yield and inflation expectations. **Approximately $26.7 million (19%) at Program launch.**
- Given the unknown number of actual eligible children, consider including a buffer for additional enrollees.

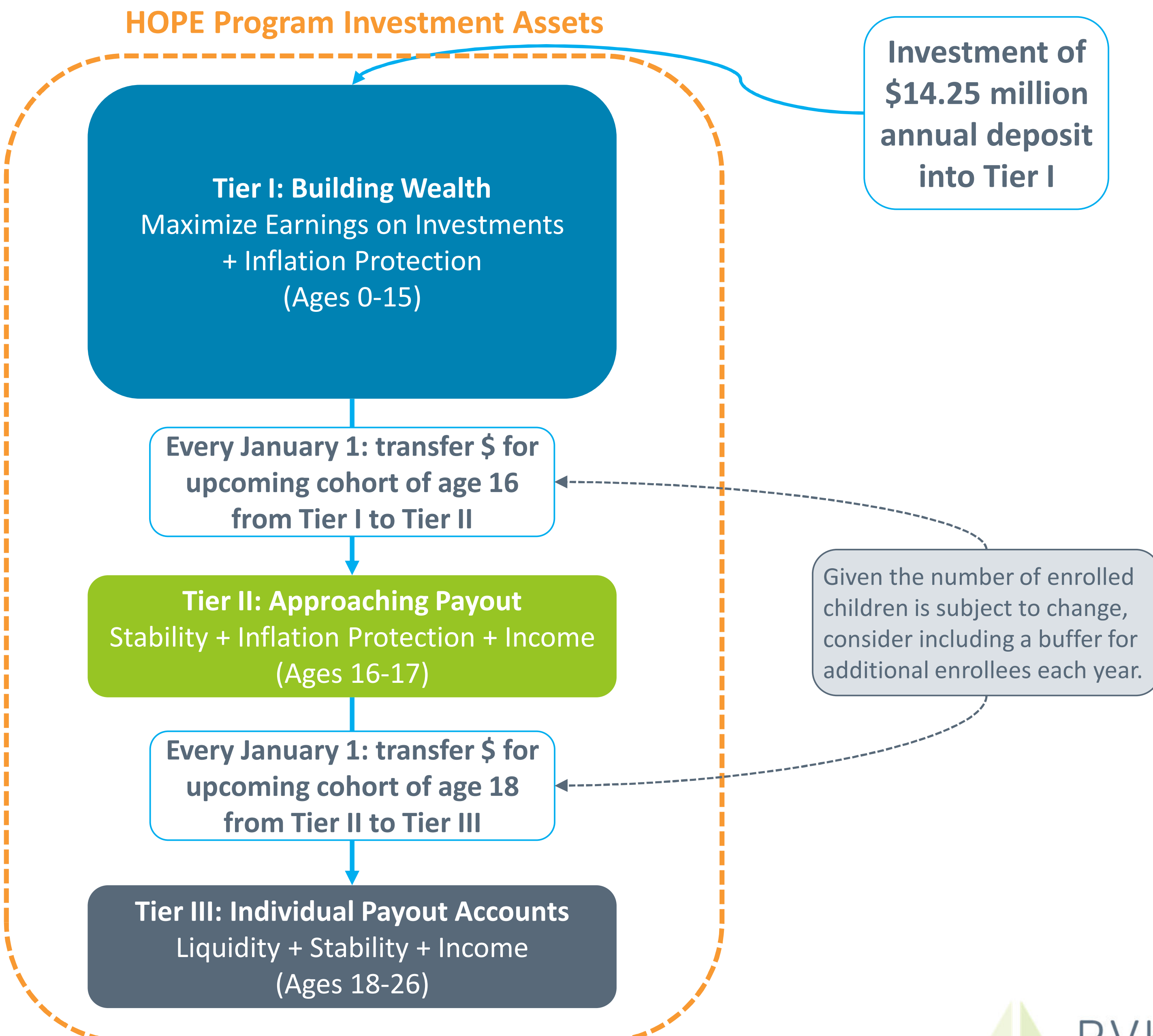
#### Tier III: Ages 18+

- Number of estimated eligible children, age 18+ x $4,500. **Approximately $39.1 million (28%) at Program launch.**
- Given the unknown number of actual eligible children, consider including a buffer for additional enrollees.

Visual is shown for illustrative purposes only. $138.55 million reflects the estimated initial investment portfolio value, as of July 1, 2025.

# Map of Ongoing Investment Funds' Movement

## Every year, funds for each age cohort will waterfall down into the respective tiers.




Visual is shown for illustrative purposes only.

# Summary of RVK Recommendations (Board Action Item)

**RVK recommends the following components, as it relates to the HOPE Program's investment structure and initial investment strategy:**

1. A **pooled model** that aggregates investment assets until enrolled children turn 18

2. The below **initial investment strategy targets:**
   - Tier I: 60% Low Duration Credit, 5% Short-Term TIPS, and 35% PMIA
   - Tier II: 10% Short-Term TIPS and 90% PMIA
   - Tier III: 100% PMIA

# Intergenerational Equity Modeling

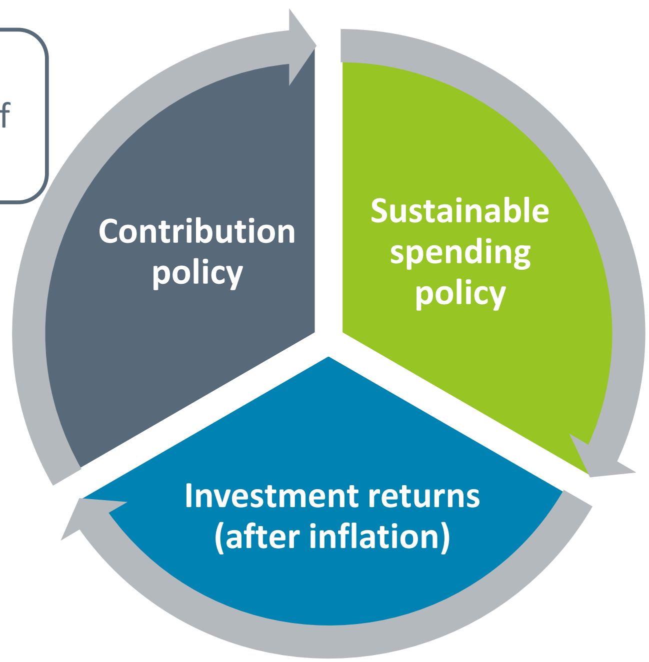
# What is Intergenerational Equity?

## Intergenerational Equity relies on the combination of three primary levers.

**Intergenerational Equity aims to ensure the future children enrolled in the HOPE Program have the same opportunities and purchasing power as the HOPE Program's children of today.**

This is achieved through a combination of:

- Annual funding
- Inflation adjustment (or not) of annual funding




- Target distribution amount to each child (today's dollars)
- Actual vs. expected inflation adjustment (long-term trends)
- Number of enrolled children

- Investment opportunity set
- Actual vs. expected long-term returns (after inflation)

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# Intergenerational Equity Objective

## The target IE Score range aims to reflect a balance between current and future enrollees.

### Intergenerational Equity (IE) Objective:

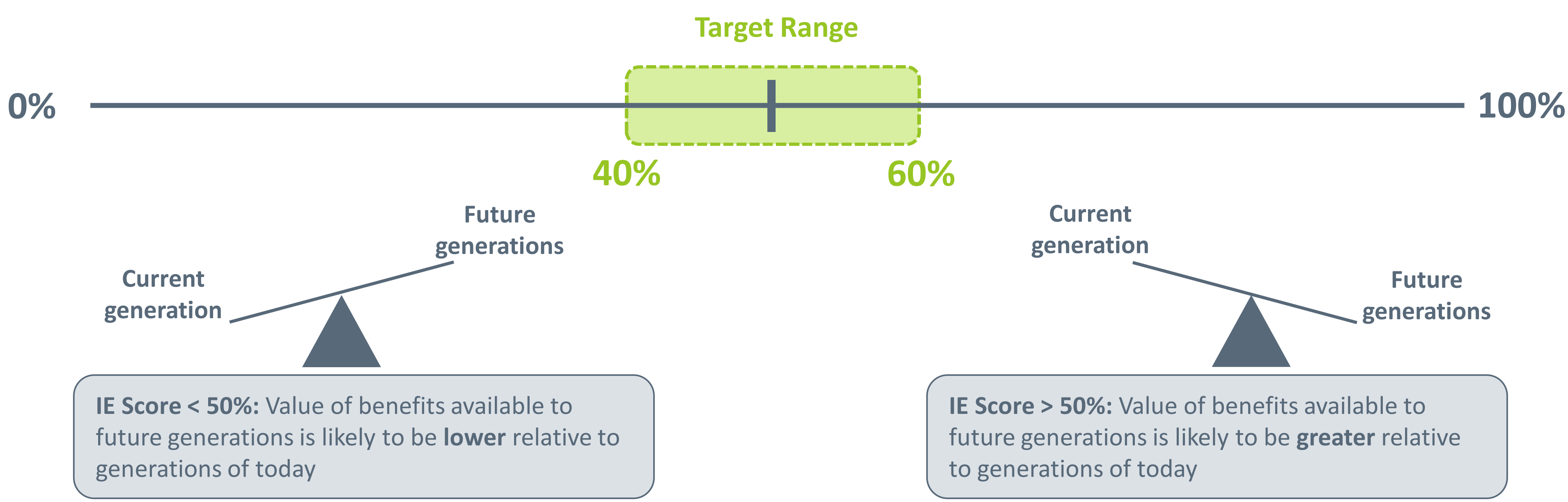
Preserving purchasing power of the investment portfolio, over a 25-year period.

This means maintaining the starting investment portfolio value of **$138.55 million** over 25 years, in today's dollars.

- Since the IE Objective is to preserve purchasing power, all subsequent data shown is in real terms (after inflation).

### IE Score Interpretation:

The IE Score represents the probability of achieving the IE Objective (e.g. a score of 50 means there is a 50% chance of attaining the IE Objective). Generally, a score of 40-60 is desirable.



# Modeling Assumptions – Base Case

## RVK assumes the below factors to calculate the "Base Case" scenario

**Beginning Investment Portfolio Value:** $138.55 million

**Distributions:** $4,500 per enrolled child, adjusted for inflation

**Population Distribution:** Foster youth count provided by the California Department of Social Services, plus 10,000 COVID-bereaved youth (distributed equally across all ages). An additional 1,000 children per year are assumed to enroll after the launch date.

| | |
|---|---|
| Under 5 | 15,891 |
| 6-10 | 13,884 |
| 11-15 | 11,945 |
| 16-17 | 5,771 |
| 18+ | 8,686 |
| **Total** | **56,175** |

**Long-Term Return Expectation:** 3.3% average annual return

**Expected Annual Inflation Rate:** 2.5%

**Expected Nominal Inflows:** $14.25 million per year**

See the appendix for additional population distribution details. Additional 1,000 children per year are distributed equally across all age groups.
**Assumes investment portfolio consists of 75% Tier I and 25% Tier II using initial population estimates and RVK's 2024 Capital Market Assumptions.*
***Annual inflows will not be adjusted for inflation. Therefore, HOPE will receive fewer annual funds in today's dollars over time.*

# Summary of Intergenerational Equity Observations

**Intergenerational Equity Results:**

- Assuming no future Program changes, the projected real market value is expected to be below the IE Objective, but stable after Year 1, for the first ~10 years. After which, the market value will gradually decline each year.

**Implications for the HOPE Program:**

- **The initial stability of the projected market value after Year 1 should allow the Program to launch with the current Program components in the interim**, allowing time to become fully operational before revisiting future enhancements.

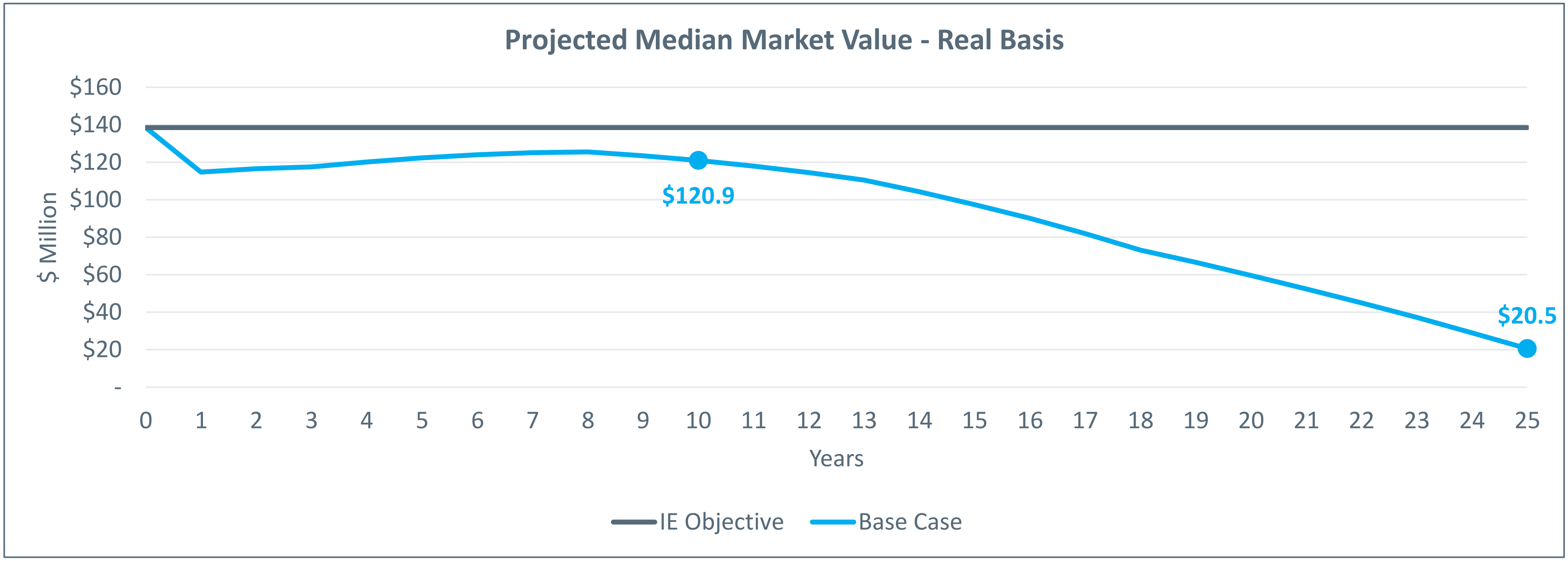
- **Future Program enhancements are necessary** to achieve long-term intergenerational equity, such as expanding the investment opportunity set to achieve higher expected long-term returns and working with the legislature to amend the appropriation language to index annual funding to inflation.
  - **RVK recommends adopting these enhancements within the next 1-3 years to maximize impact.**

- **Ongoing annual funding and expected enrollment levels are critical** to the viability of the Program.

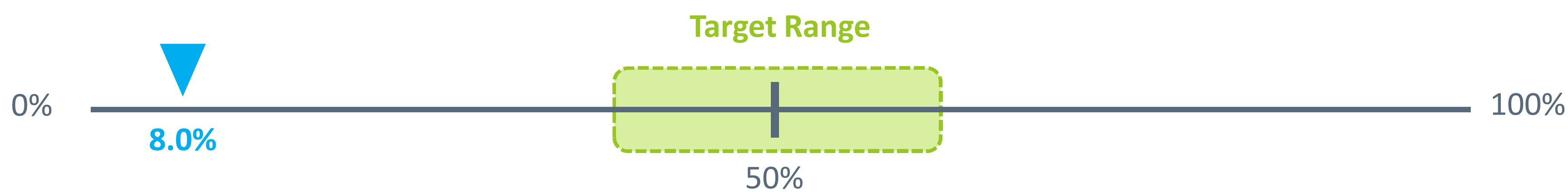
- **Intergenerational equity is an ongoing metric and should be reviewed periodically** as part of the Fiscal Health Work Plan and/or alongside the contemplation of major Program changes.

# Does the Base Case Provide Intergenerational Equity?

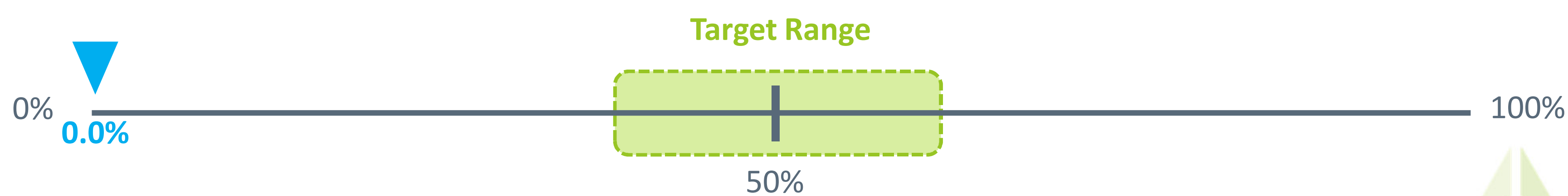
## No, the projected real market value produces an Intergenerational Equity Score outside the target range (assuming no future Program changes).




**10-Year Intergenerational Equity Score:**




**25-Year Intergenerational Equity Score:**




Visual intergenerational equity score markers are shown for general illustrative purposes only.

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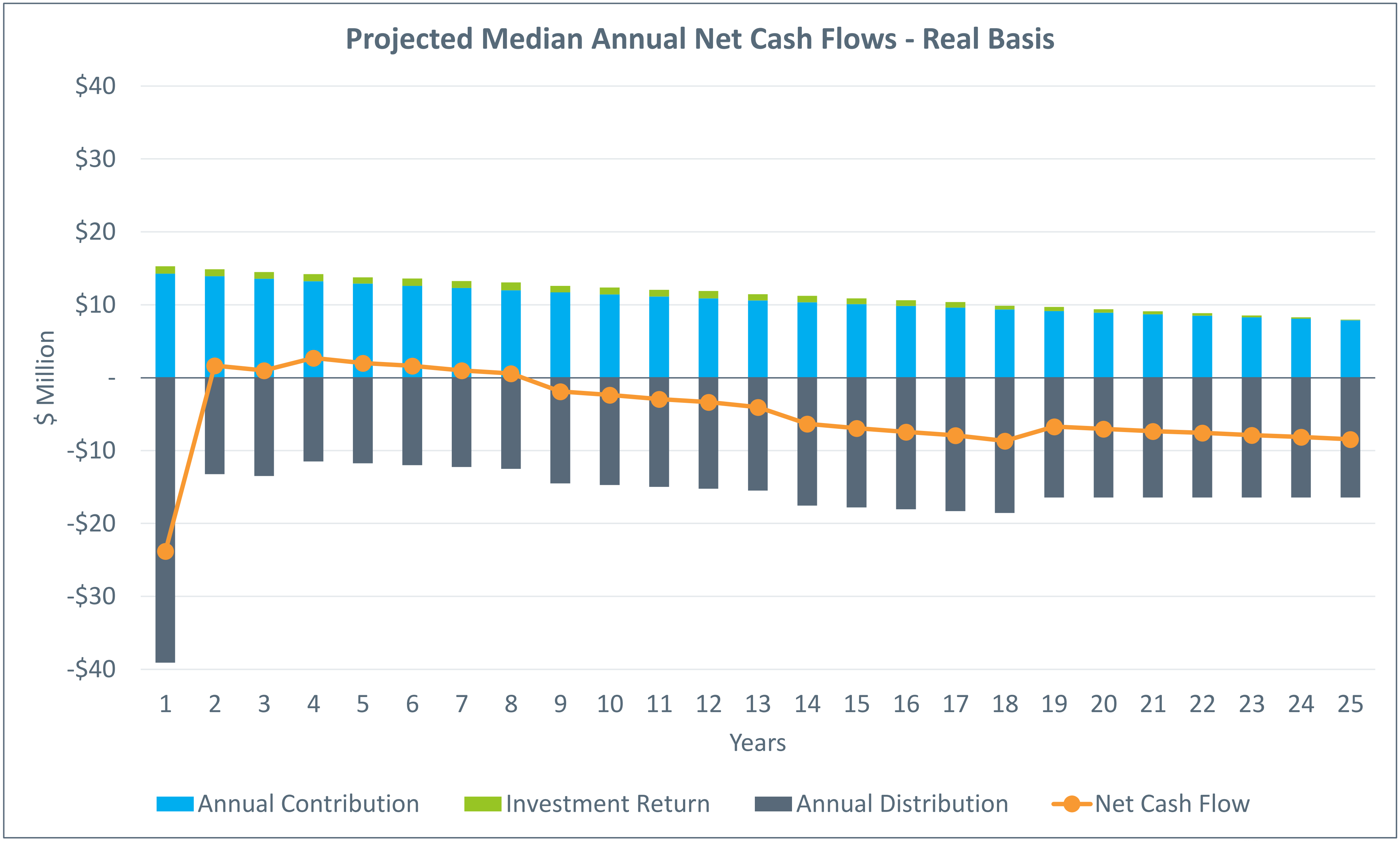
# Projected Annual Net Cash Flows – Base Case

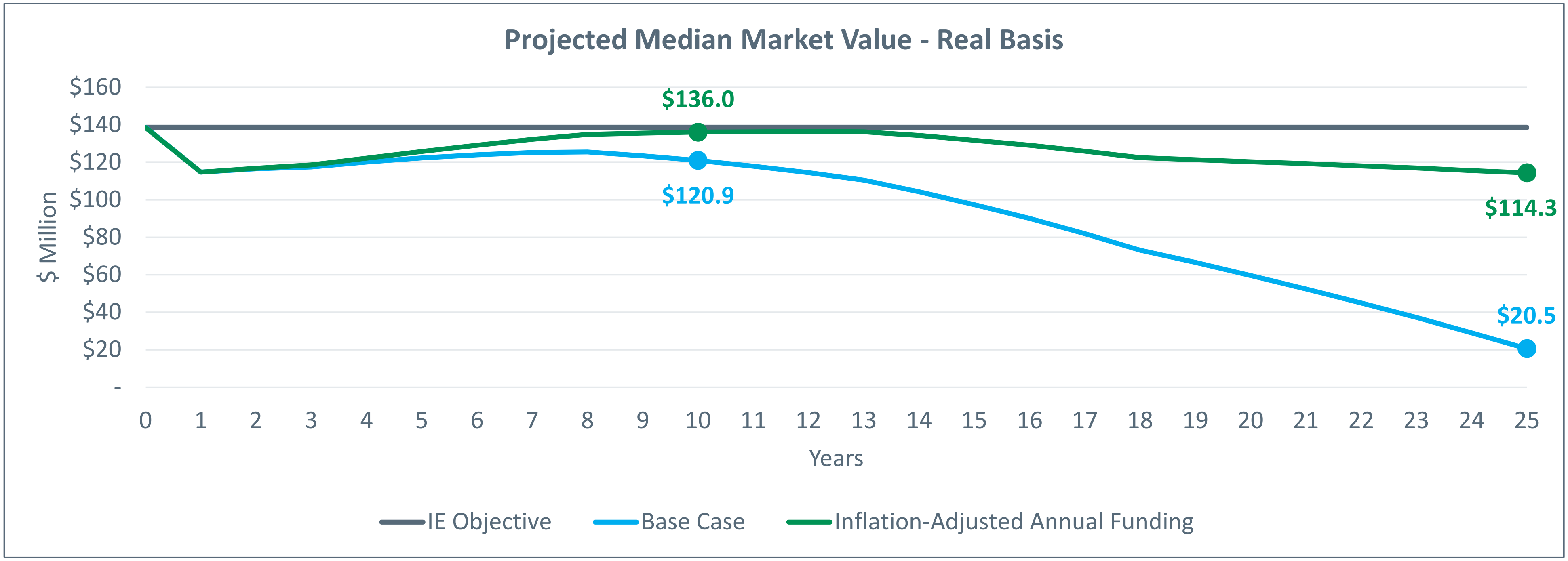
## After the initial outlay in year 1, the Program is projected to be net cash flow positive through year 8. The Program will be net cash flow *negative* each year thereafter.




Additional 1,000 enrolled children per year are distributed equally across all age groups. Base Case scenario assumes a distribution of $4,500 per child at age 18, in real terms.

# Scenario 1: Annual Funding Adjusted to Keep Pace with Inflation

## Adjusting annual funding for inflation meaningfully supports the fiscal health of the Program, but additional changes are required to achieve long-term intergenerational equity.

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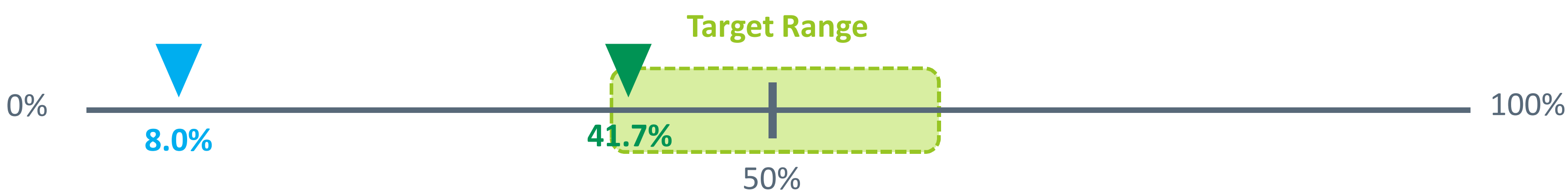


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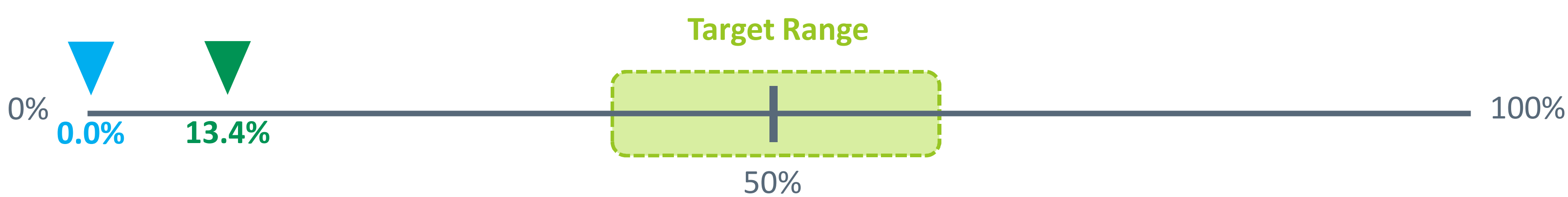


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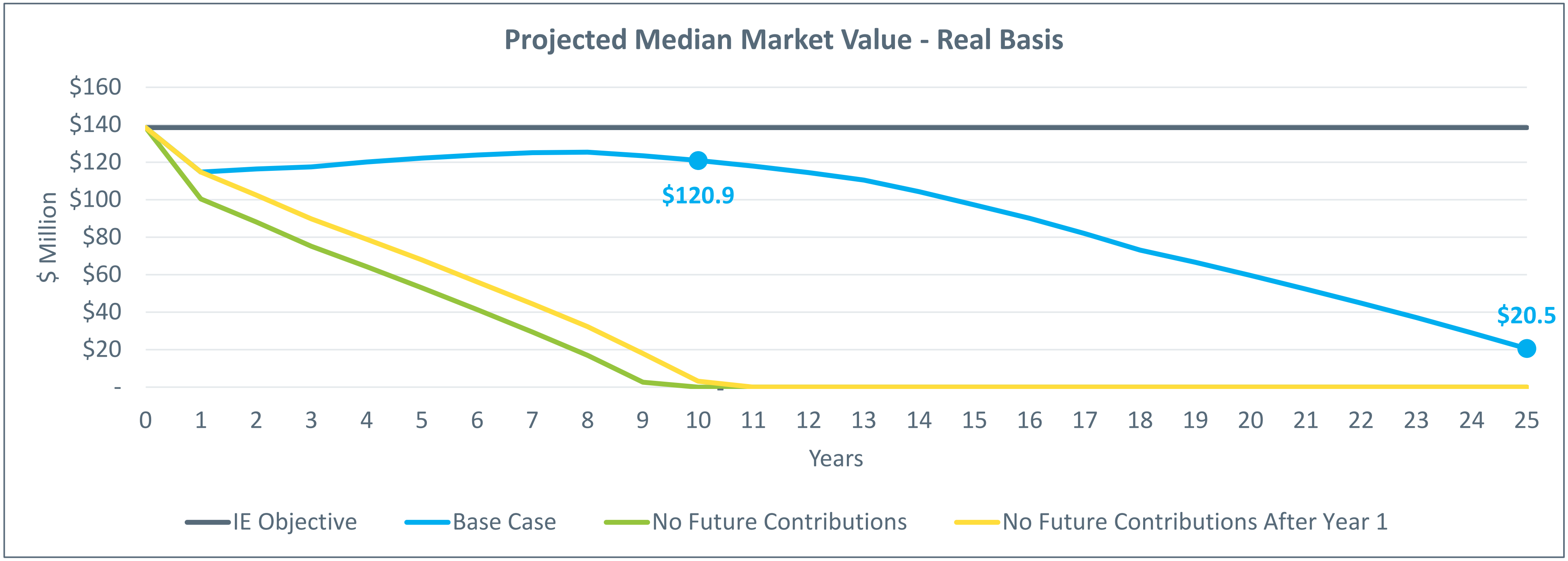
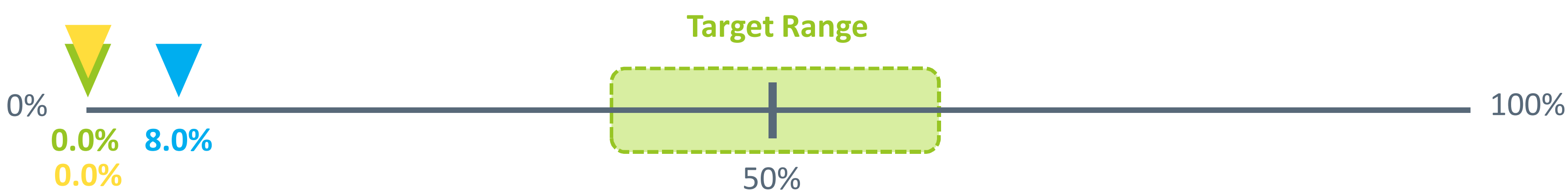
# Scenario 2: No Ongoing Contributions

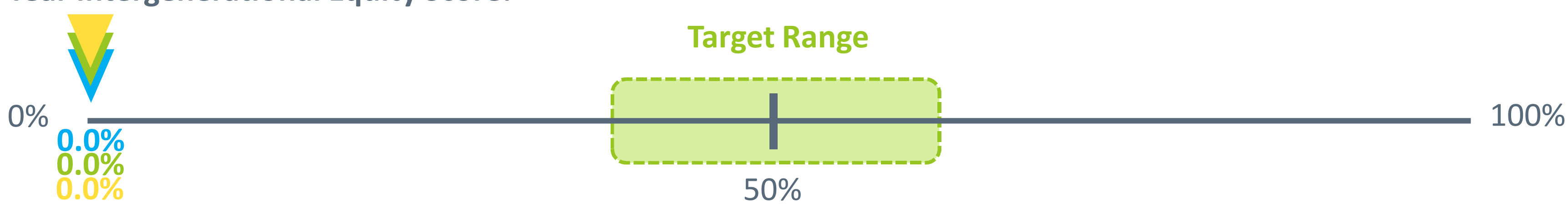
## Receiving ongoing contributions is critical to the viability of the Program.




**10-Year Intergenerational Equity Score:**



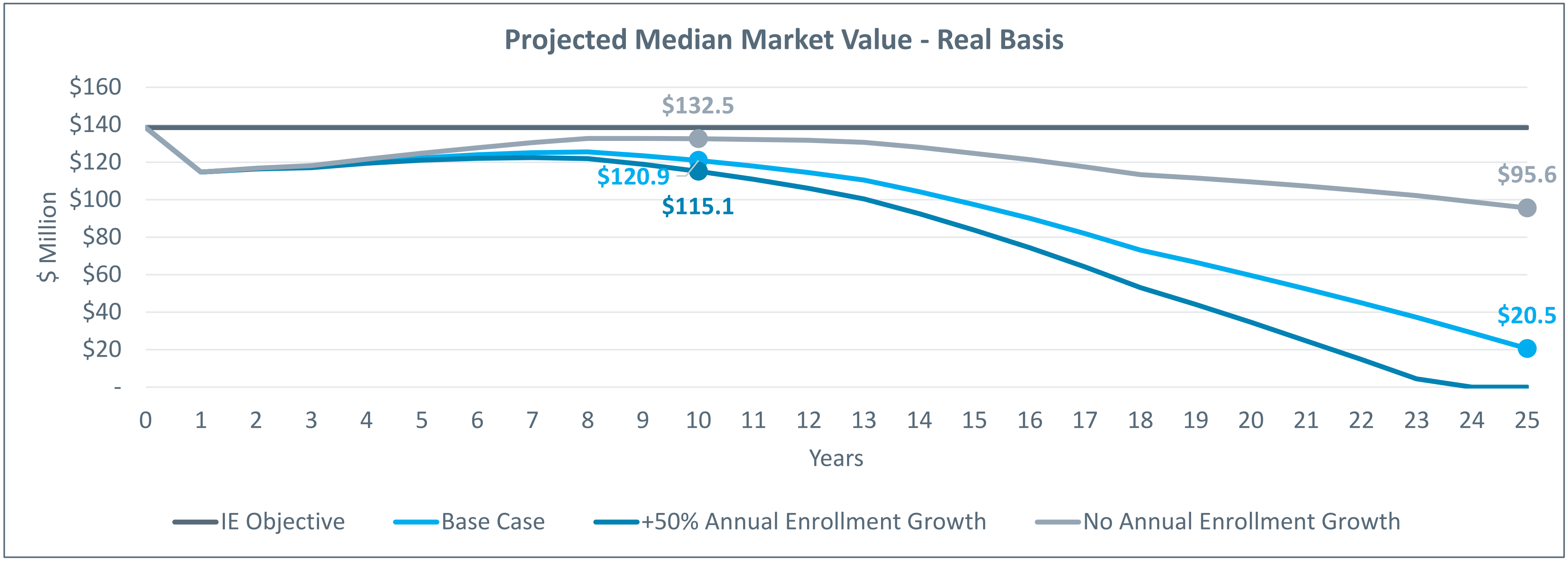

**25-Year Intergenerational Equity Score:**



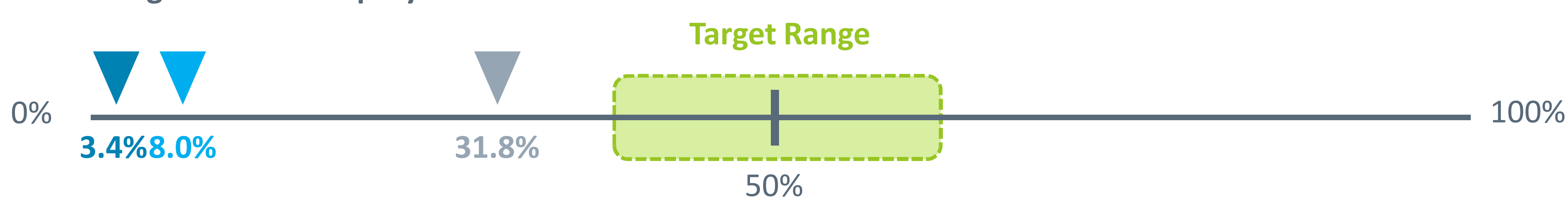

Visual intergenerational equity score markers are shown for general illustrative purposes only.

# Scenario 3: Higher Annual Enrollment Growth

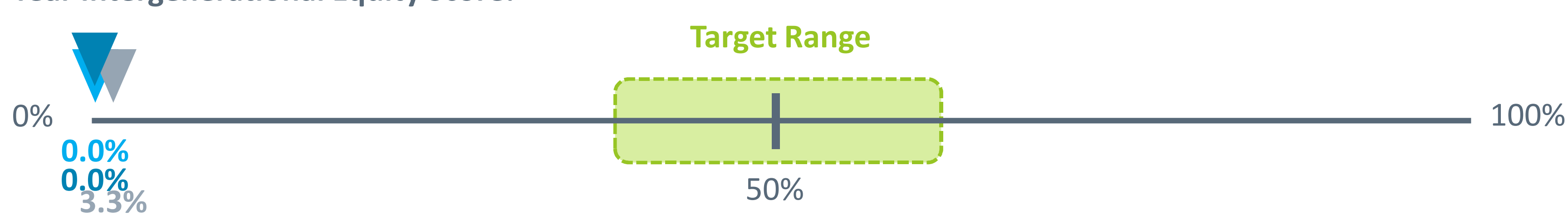
## Annual enrollment growth materially impacts the future fiscal health of the Program.




**10-Year Intergenerational Equity Score:**



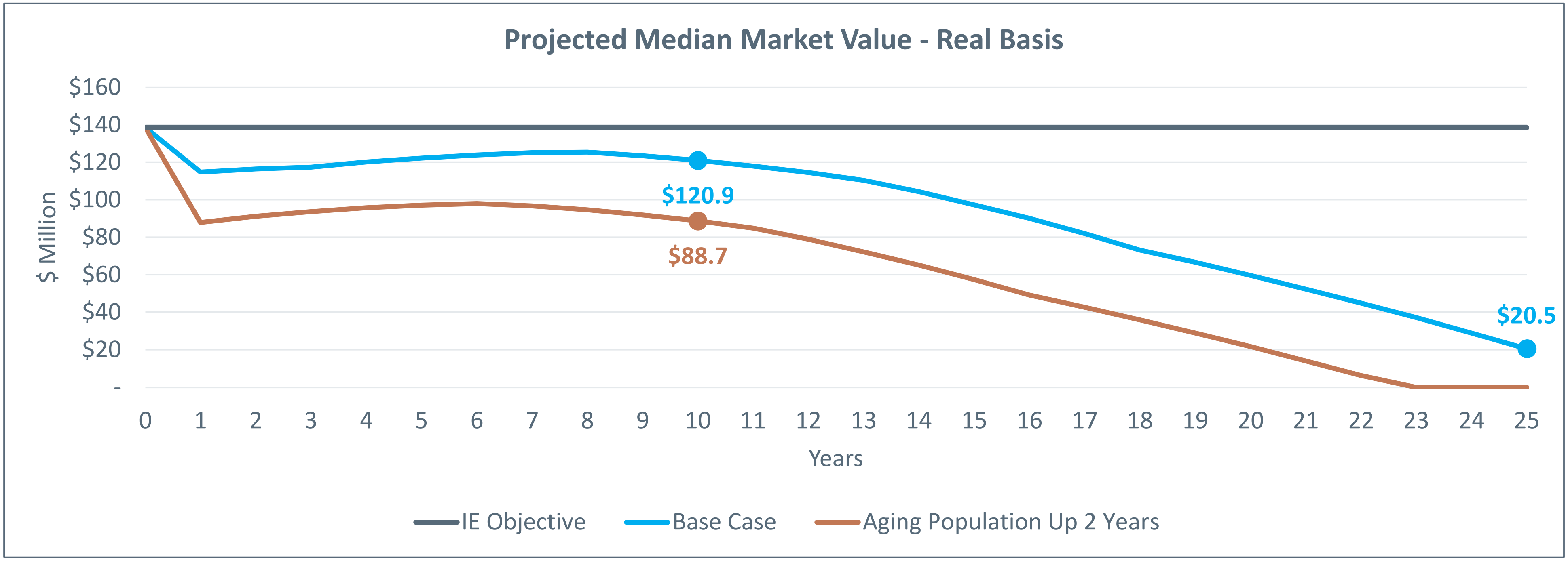

**25-Year Intergenerational Equity Score:**



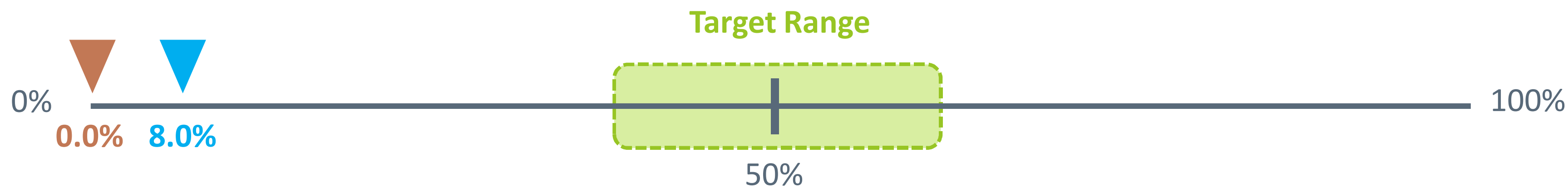

Visual intergenerational equity score markers are shown for general illustrative purposes only. +50% Annual Enrollment Growth = 1,500 additional children enrolled per year.

# Scenario 4: Advancing 2023 Population Data to 2025

## The initial outlay increases significantly if the 16-17 age cohort is assumed to be 18+ today, placing additional importance on making future Program changes.




**10-Year Intergenerational Equity Score:**

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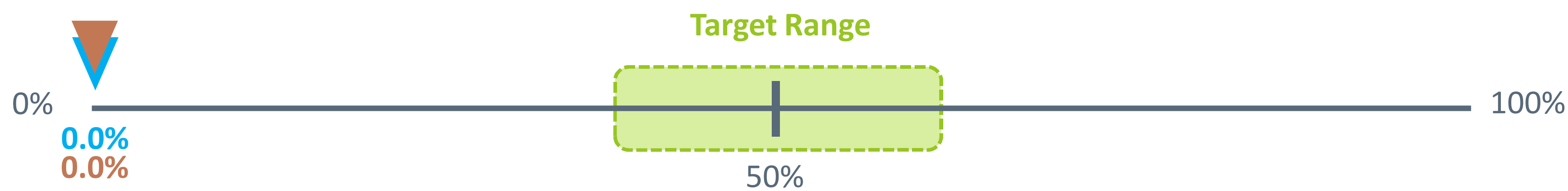
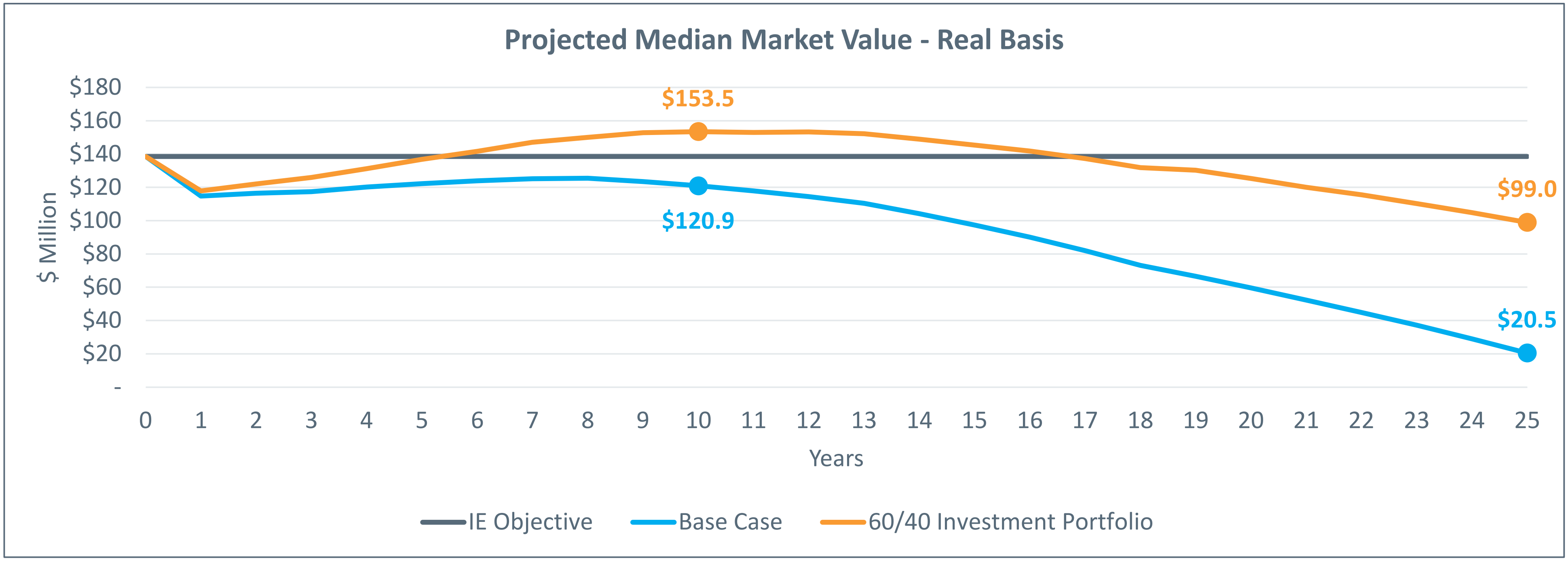


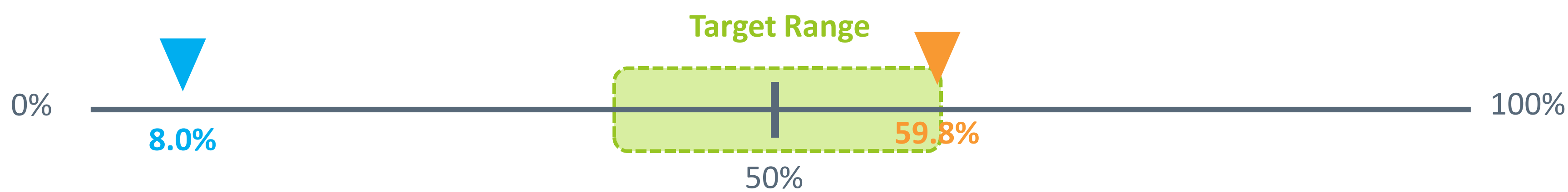

Visual intergenerational equity score markers are shown for general illustrative purposes only.

# Scenario 5: Expand Investments to Higher Returning Assets

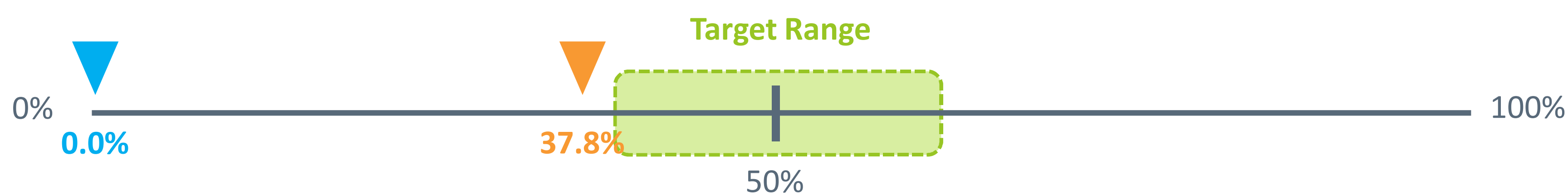
## Expanding investment opportunities outside of PMIA guidelines could improve the future fiscal health of the Program.




**10-Year Intergenerational Equity Score:**



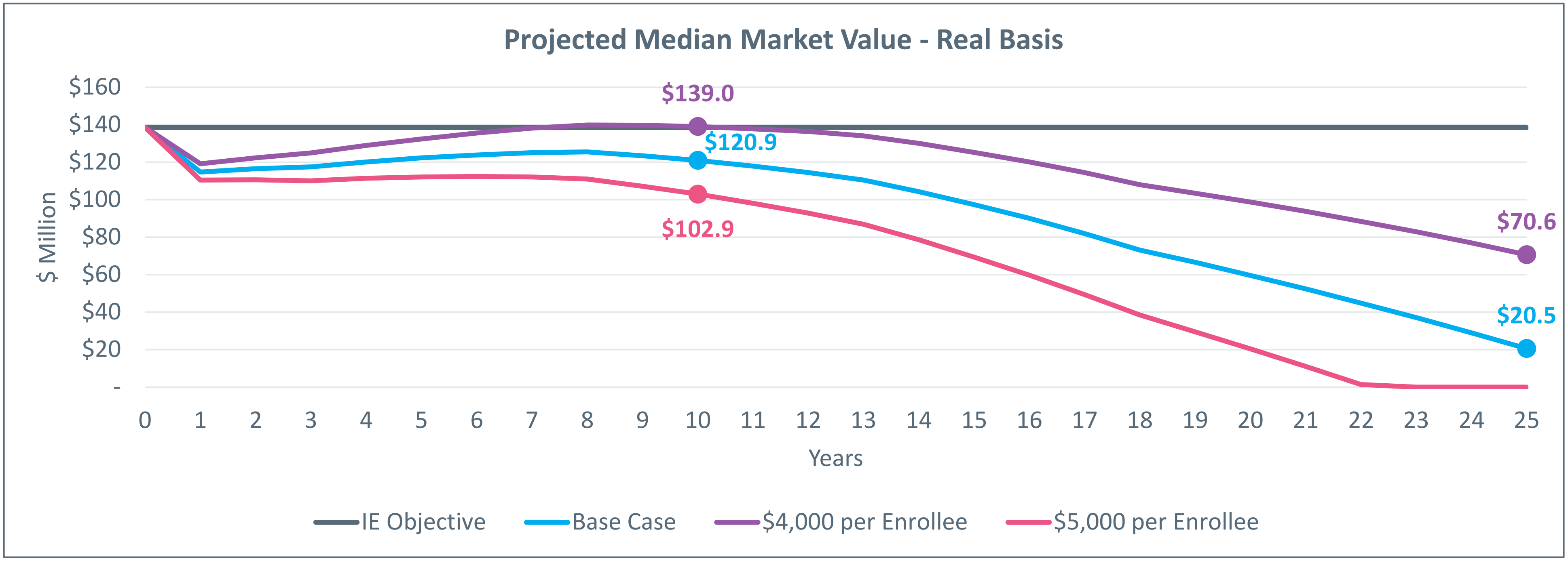

**25-Year Intergenerational Equity Score:**



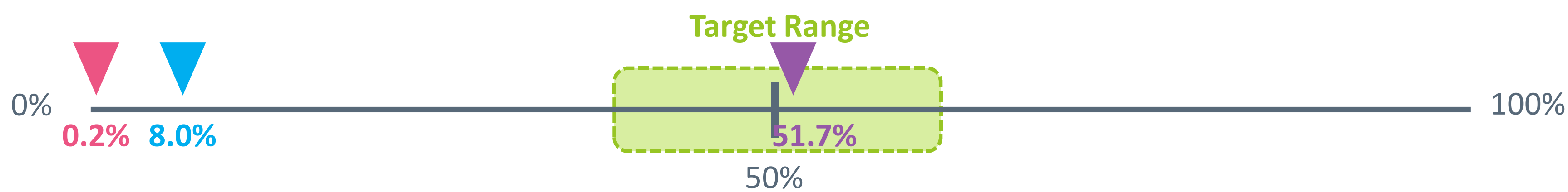

Visual intergenerational equity score markers are shown for general illustrative purposes only.

# Scenario 6: Change the Distribution Amount per Enrollee

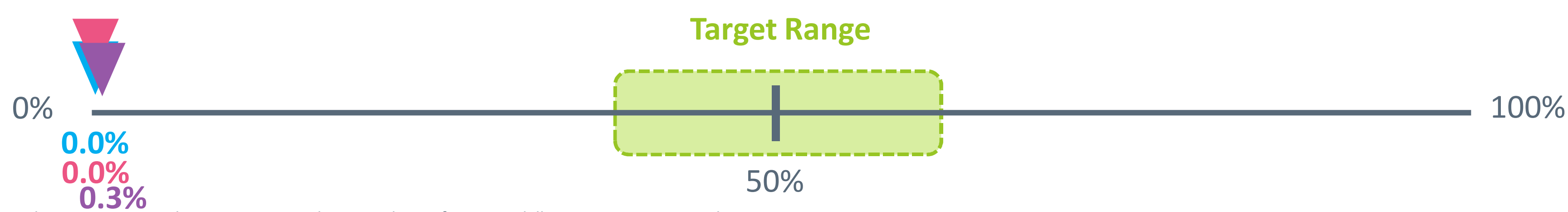
## Although $4,000 per child improves the short- to medium-term outlook, similar future changes are still required to improve the long-term fiscal health of the Program.




**10-Year Intergenerational Equity Score:**




**25-Year Intergenerational Equity Score:**

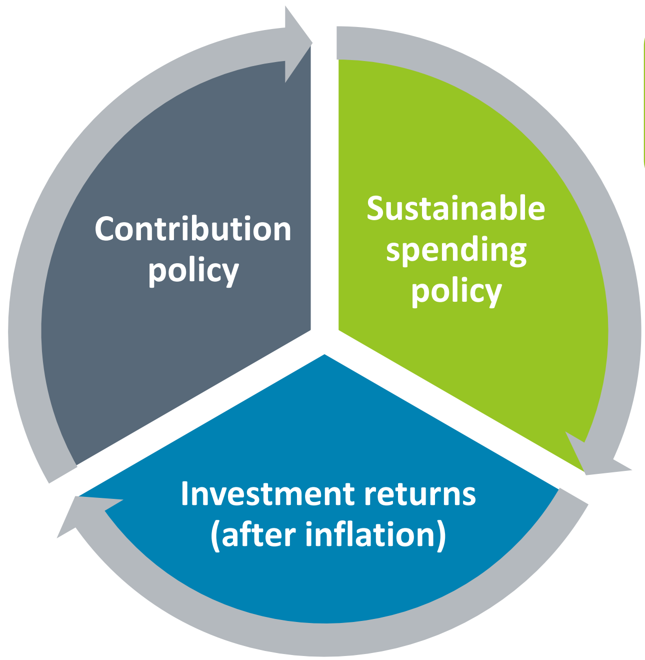



Visual intergenerational equity score markers are shown for general illustrative purposes only.

# Potential Levers to Explore Modifying in the Next 1-3 Years

## The Program's Intergenerational Equity Score could be improved by adjusting the following intergenerational equity levers, most likely more than one in tandem:

- Increase annual funding
- Adopt inflation-adjustment mechanism for existing annual funding ($15M)
- Invest idle operations funds, such that the investment program can receive a larger share of the $15M in State funding each year (currently $14.25M)

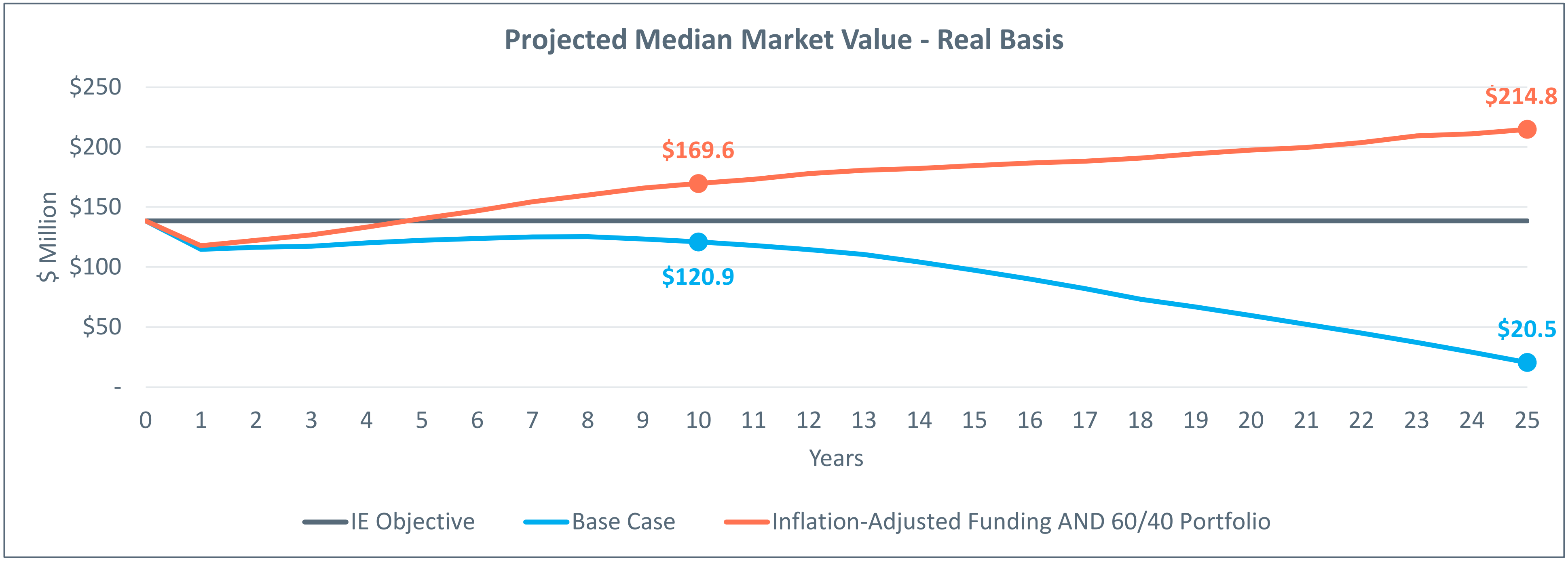



- Adjust the target distribution amount to each child (today's dollars).

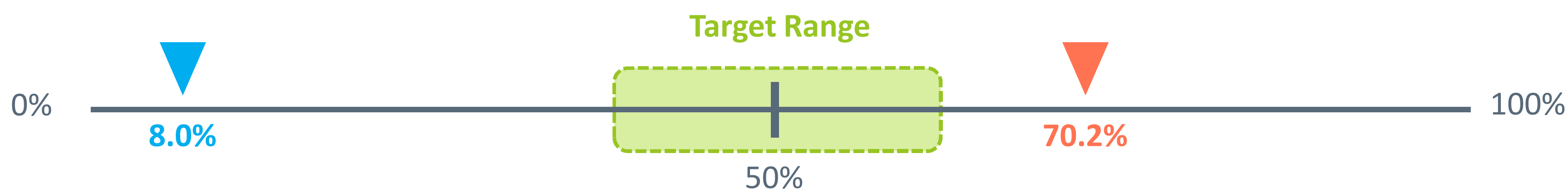
- Expand the investment opportunity set outside of PMIA guidelines, in pursuit of higher expected long-term returns

# The Impact of Two Potential Future Enhancements in Tandem

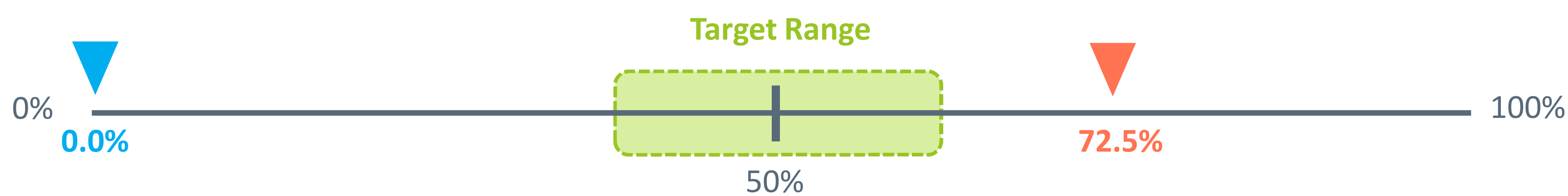
## Adjusting annual funding for inflation AND shifting to a higher returning investment portfolio in tandem could put the Program’s long-term fiscal health in a strong position.




**10-Year Intergenerational Equity Score:**




**25-Year Intergenerational Equity Score:**




Visual intergenerational equity score markers are shown for general illustrative purposes only.

# Intergenerational Equity Observations and Next Steps for RVK

# Summary of Intergenerational Equity Observations

**Intergenerational Equity Results:**

- Assuming no future Program changes, the projected real market value is expected to be below the IE Objective, but stable after Year 1, for the first ~10 years. After which, the market value will gradually decline each year.

**Implications for the HOPE Program:**

- **The initial stability of the projected market value after Year 1 should allow the Program to launch with the current Program components in the interim**, allowing time to become fully operational before revisiting future enhancements.

- **Future Program enhancements are necessary** to achieve long-term intergenerational equity, such as expanding the investment opportunity set to achieve higher expected long-term returns and working with the legislature to amend the appropriation language to index annual funding to inflation.
  - **RVK recommends adopting these enhancements within the next 1-3 years to maximize impact.**

- **Ongoing annual funding and expected enrollment levels are critical** to the viability of the Program.

- **Intergenerational equity is an ongoing metric and should be reviewed periodically** as part of the Fiscal Health Work Plan and/or alongside the contemplation of major Program changes.

RVK

# Next Steps for RVK

### Preparing for Investment Strategy Implementation: (Ongoing)

- RVK will work with HOPE Program Staff, California State Treasurer Staff, and the new Program Administrator to prepare for implementation of the investment strategy.

### Drafting of the Investment Policy Statement: (April Board Meeting)

- RVK will develop an Investment Policy Statement for the Board to review in April. Contents of the document will include:
  - Investment objectives and constraints
  - Roles and responsibilities
  - Investment structure and strategy targets (as reviewed today)
  - General ESG and DEI policy language

### Developing a Fiscal Health Work Plan: (June Board Meeting)

- In collaboration with HOPE Program Staff, RVK will develop a Fiscal Health Work Plan for the Board to review in June.
- The Fiscal Health Work Plan will include a schedule to review and monitor the primary components of the HOPE Program's long-term fiscal health, including:
  - Investment strategy targets and expected investment returns
  - Historical investment performance and Program outcomes
  - Estimated future enrollment levels
  - Any potential changes to future annual funding

# Appendix

# Asset Classes Under Consideration

- **Low Duration Credit Fixed Income:** Debt issued by US corporations. Ratings must be considered of "high quality", rated BBB or higher. These bonds generally carry a higher expected risk/return profile when compared to government bonds of a similar maturity profile. However, investment-grade corporate debt is generally expected to have a lower expected risk/return profile than equities (stocks). This allocation will be limited to shorter maturity bonds of five years or less, per PMIA guidelines.

- **Low Duration Gov't Fixed Income:** Bonds and notes that are issued by the US Federal Government, including US Treasury Notes. This also includes debt issued by US Federal Agencies and Government-Sponsored Enterprises (Fannie Mae or Freddie Mac are government agencies). Backed by the US Federal Government, these bonds generally have a lower expected risk profile. This allocation will be limited to shorter maturity bonds of five years or less, per PMIA guidelines.

- **Short-Term TIPS:** Bonds issued by the US Treasury that are indexed to inflation to protect investors from loss of purchasing power. Backed by the US Federal Government, these bonds generally have a lower expected risk profile. This allocation will be limited to shorter maturity bonds of five years or less, per PMIA guidelines.

- **Pooled Money Investment Account (PMIA):** Portfolio managed by the State Treasurer's Investment Division, with primary investments objectives of safety, liquidity, and yield. The portfolio currently consists of over 50% US Treasuries and approximately 23% government agencies, with the remainder invested in CDs, time deposits, commercial paper, and corporate credit. The corporate credit allocation is less than 1% as of August 31, 2024.

# RVK’s Capital Market Assumptions and Process

RVK’s asset class assumptions use a rigorous multi-step process, which involves detailed research and employs firm-wide resources.

These assumptions are long-run, forward-looking and strategic in nature, with an investment horizon of 20 years.

The components we estimate include:

- **Return:** Expected average annual investment return, net of fees and assuming no “alpha” beyond the associated market index.
- **Risk:** Annual volatility of expected investment returns.
- **Correlation:** The relationship of how asset classes move together, or not. Correlations less than +1.00 indicate diversification opportunities that may result in achieving a higher rate of return with lower volatility.

**2024 Capital Market Assumptions**

| | Arithmetic Return | Standard Deviation | Compound Return | Return (Arith.) / Risk Ratio | Est. Yield (as of 9/30/24) |
|---|---|---|---|---|---|
| Low Duration Credit Fixed Income | 3.75 | 3.00 | 3.71 | 1.25 | 4.30 |
| Low Duration Gov’t Fixed Income | 3.00 | 2.50 | 2.97 | 1.20 | 3.71 |
| Short-Term TIPS | 4.25 | 3.00 | 4.21 | 1.42 | 3.89 |
| PMIA (Custom Blend) | 2.80 | 1.92 | 2.78 | 1.46 | 4.58 |
| Inflation | 2.50 | 2.50 | 2.47 | 1.00 | N/A |

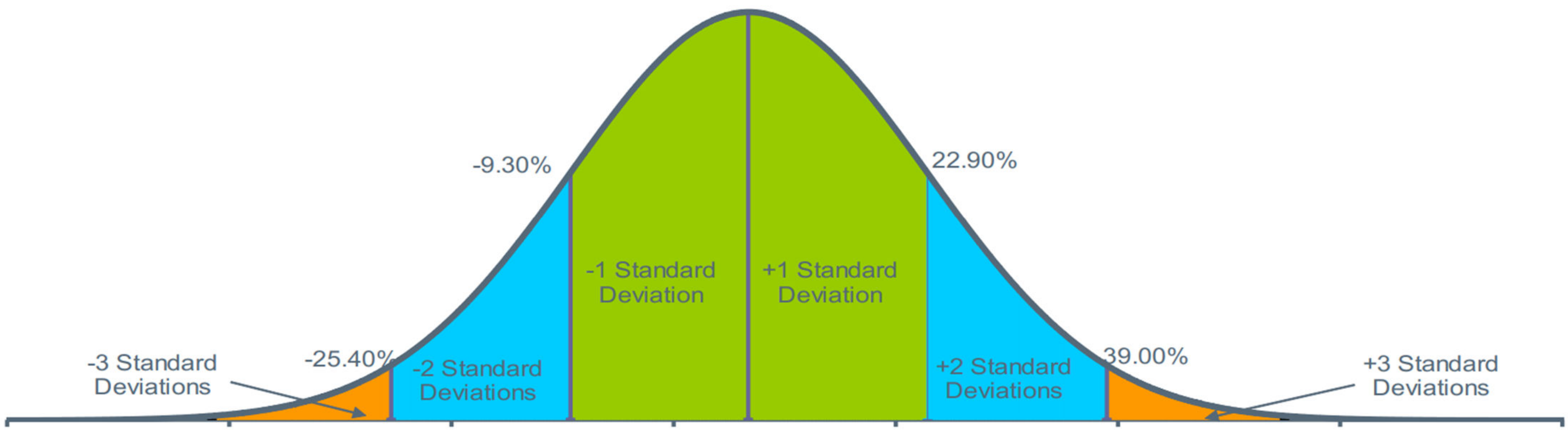
PMIA assumption is a blend of 80% cash equivalents and 20% low duration gov’t fixed income. Inflation is not an investable asset class and is shown for illustrative purposes only.

# RVK Capital Market Assumptions: Annual Volatility

| | -3 St Dev | -2 St Dev | -1 St Dev | Expected Return | +1 St Dev | +2 St Dev | +3 St Dev |
|---|---|---|---|---|---|---|---|
| Low Duration Credit Fixed Income | -5.25 | -2.25 | 0.75 | 3.75 | 6.75 | 9.75 | 12.75 |
| Low Duration Gov't Fixed Income | -4.50 | -2.00 | 0.50 | 3.00 | 5.50 | 8.00 | 10.50 |
| Short-Term TIPS | -4.75 | -1.75 | 1.25 | 4.25 | 7.25 | 10.25 | 13.25 |
| PMIA (Custom Blend) | -2.96 | -1.04 | 0.88 | 2.80 | 4.72 | 6.64 | 8.56 |

**Expected Annual Return: Low Duration Credit**

**-1 St Dev to +1 St Dev =** 68% of Outcomes
**-2 St Dev to +2 St Dev =** 95% of Outcomes
**-3 St Dev to +3 St Dev =** 99.7% of Outcomes



# RVK Capital Market Assumptions: Correlation Matrix

| | Low Duration Credit Fixed Income | Low Duration Gov't Fixed Income | Short-Term TIPS | PMIA (Custom Blend) | Inflation |
|---|---|---|---|---|---|
| Low Duration Credit Fixed Income | 1.00 | 0.40 | 0.64 | 0.23 | -0.13 |
| Low Duration Gov't Fixed Income | 0.40 | 1.00 | 0.49 | 0.67 | -0.10 |
| Short-Term TIPS | 0.64 | 0.49 | 1.00 | 0.28 | 0.16 |
| PMIA (Custom Blend) | 0.23 | 0.67 | 0.28 | 1.00 | 0.17 |
| Inflation | -0.13 | -0.10 | 0.16 | 0.17 | 1.00 |

# Custom PMIA Blend: Bond Characteristics Comparison

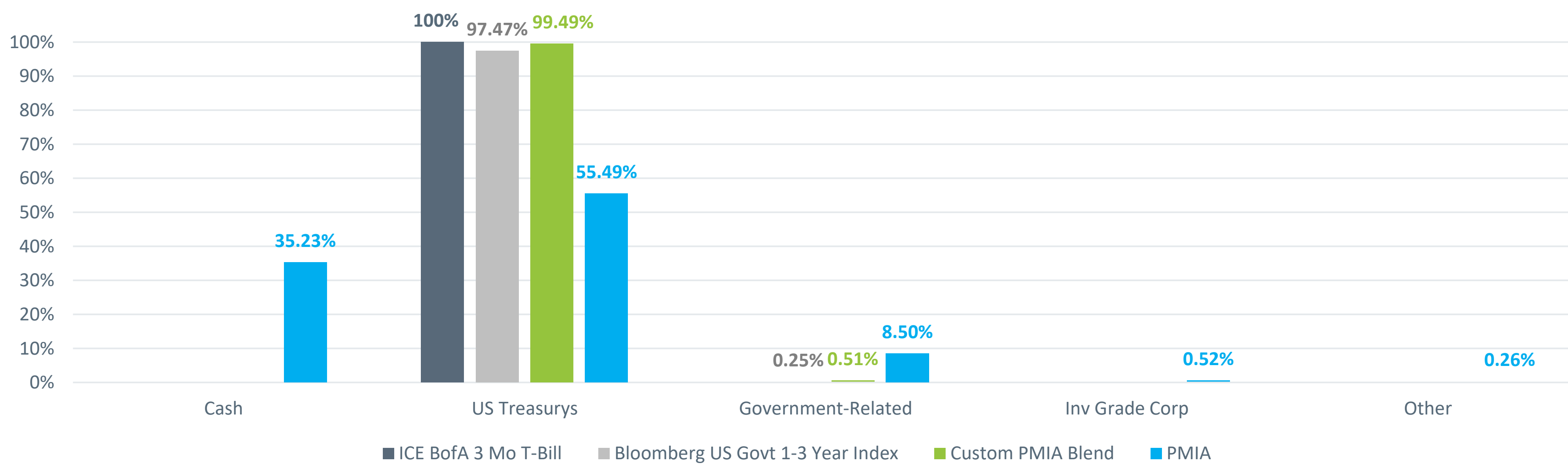
The custom assumption for PMIA consists of 80% cash equivalents and 20% low duration gov't fixed income.

### Portfolio Characteristics (as of 12/31/2024)

| Asset Class | Cash Equivalents | Low Duration Gov't Fixed Income | Custom PMIA Blend | Current PMIA |
|---|---|---|---|---|
| Underlying Index | ICE BofA 3 Mo T-Bill | Bloomberg US Govt 1-3 Year Index | | |
| Effective Duration | 0.22 | 1.86 | 0.55 | |
| Yield to Worst | 4.24 | 4.27 | 4.25 | 4.43 |
| Average Maturity | 0.24 | 1.96 | 0.58 | 0.63* |
| Average Quality | Aa1 | Aa1 | Aa1 | |

*PMIA Average Maturity as of 09/30/2024

### Sector Allocations (as of 09/30/2024)




PMIA sector allocations are bucketed as follows: Cash consists of CDs, Fed Agency Discount Notes, Time Deposits, and Commercial Paper. Government-Related consists of Federal Agency Debentures. Investment Grade Corp consists of Corporate Bonds. Other consists of PMIA Loans. PMIA YTW shows Average Monthly Yield as of 12/31/2024 and is sourced from https://www.treasurer.ca.gov/pmia-laif/historical/avg_mn_ylds.asp

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# Intergenerational Equity – Sensitivity Analysis: 10 Years

The sensitivity analysis demonstrates that changes to any—or even just one—of the factors impacting the medium-term fiscal health of the HOPE Program can have a substantial influence on the ability to provide and maintain intergenerational equity.

| | **Base Case (Probability of Attaining IE Objective, 10 Years)** | **Impact of UP move to assumption** | **Impact of DOWN move to assumption** |
|---|---|---|---|
| **Target $ Amount per Child** | $4,500<br>**(8.0%)** | $5,000<br>**(0.2%)** | $4,000<br>**(51.7%)** |
| **Estimated Total Children Currently Eligible*** | 56,175<br>**(8.0%)** | 61,175 (+5,000)<br>**(0.6%)** | 51,175 (-5,000)<br>**(37.5%)** |
| **Additional Children Enrolled Per Year After Launch*** | 1,000 per year<br>**(8.0%)** | 1,500 per year<br>**(3.4%)** | None<br>**(31.8%)** |
| **Annual Inflows** | $14.25 million per year, not adjusted for inflation<br>**(8.0%)** | $14.25 million per year, adjusted for inflation<br>**(41.7%)** | No future contributions after Year 1<br>**(0.0%)** |
| **Average Annual Inflation** | 2.5% per year<br>**(8.0%)** | 3.5% per year<br>**(0.2%)** | 1.5% per year<br>**(54.1%)** |

All data is shown in real terms. Monte Carlo simulations assume the investment portfolio consists of 25% Tier II and 75% Tier I.
*RVK continues to work with CDSS on estimated future expected enrollment levels.

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# Intergenerational Equity – Sensitivity Analysis: 25 Years

The sensitivity analysis demonstrates that changes to any—or even just one—of the factors impacting the long-term fiscal health of the HOPE Program can have a substantial influence on the ability to provide and maintain intergenerational equity.

| | Base Case (Probability of Attaining IE Objective, 25 Years) | Impact of UP move to assumption | Impact of DOWN move to assumption |
|---|---|---|---|
| **Target $ Amount per Child** | $4,500<br>**(0.0%)** | $5,000<br>**(0.0%)** | $4,000<br>**(0.3%)** |
| **Estimated Total Children Currently Eligible*** | 56,175<br>**(0.0%)** | 61,175 (+5,000)<br>**(0.0%)** | 51,175 (-5,000)<br>**(0.0%)** |
| **Additional Children Enrolled Per Year After Launch*** | 1,000 per year<br>**(0.0%)** | 1,500 per year<br>**(0.0%)** | None<br>**(3.3%)** |
| **Annual Inflows** | $14.25 million per year, not adjusted for inflation<br>**(0.0%)** | $14.25 million per year, adjusted for inflation<br>**(13.4%)** | No future contributions after Year 1<br>**(0.0%)** |
| **Average Annual Inflation** | 2.5% per year<br>**(0.0%)** | 3.5% per year<br>**(0.0%)** | 1.5% per year<br>**(3.3%)** |

All data is shown in real terms. Monte Carlo simulations assume the investment portfolio consists of 25% Tier II and 75% Tier I. Annual inflows of $19.8 million per year, not adjusted for inflation, are required to achieve an IE Objective probability of 49.2% over 25 years.
*RVK continues to work with CDSS on estimated future expected enrollment levels.

# HOPE Program Population Distribution Assumptions

| Age Group | DSS Count | Count + 10k COVID |
|---|---|---|
| Under 5 | 13,259 | 15,891 |
| Age 6-11 | 11,252 | 13,884 |
| Age 11-15 | 9,313 | 11,945 |
| Age 16-17 | 4,718 | 5,771 |
| Age 18+ | 7,633 | 8,686 |
| **Total** | **46,175** | **56,175** |

| Age Group | Year Turning 18 | Count + 10k COVID | Base Case Assumption (1,000 Additional per year) |
|---|---|---|---|
| Age >1 | 2043+ | 2,652 per year* | 3,652 per year |
| Age 1 | 2042 | 3,178 | 4,123 |
| Age 2 | 2040 | 3,178 | 4,067 |
| Age 3 | 2040 | 3,178 | 4,011 |
| Age 4 | 2039 | 3,178 | 3,956 |
| Age 5 | 2038 | 3,178 | 3,900 |
| Age 6 | 2037 | 2,777 | 3,443 |
| Age 7 | 2036 | 2,777 | 3,388 |
| Age 8 | 2035 | 2,777 | 3,332 |
| Age 9 | 2034 | 2,777 | 3,277 |
| Age 10 | 2033 | 2,777 | 3,221 |
| Age 11 | 2032 | 2,389 | 2,778 |
| Age 12 | 2031 | 2,389 | 2,722 |
| Age 13 | 2030 | 2,389 | 2,667 |
| Age 14 | 2029 | 2,389 | 2,611 |
| Age 15 | 2028 | 2,389 | 2,556 |
| Age 16 | 2027 | 2,885 | 2,996 |
| Age 17 | 2026 | 2,885 | 2,941 |
| Age 18+ | 2023-2025 | 8,686 | 8,686 |

DSS Count data was provided by the California Department of Social Services, report released on September 6, 2024.
10,000 COVID-bereaved total is distributed equally across the various age groups. Under 5 assumes 5 ages (1-5) and Age 18+ assumes 2 ages (18-19).
*Reflects the DSS Count average Under 5 age group, without additional COVID-bereaved children.

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# Pooled Money Investment Account (PMIA) Statutes

**California Government Code Section 16430**

Eligible securities for the investment of surplus moneys shall be any of the following:

a) Bonds or interest-bearing notes or obligations of the United States, or those for which the faith and credit of the United States are pledged for the payment of principal and interest.

b) Bonds or interest-bearing notes or obligations that are issued by or fully guaranteed as to principal and interest by a federal agency or a United States government-sponsored enterprise, as defined by the Omnibus Budget Reconciliation Act of 1990 (Sec. 13112, Public Law 101-508; 2 U.S.C. Sec. 622(8)).

c) Bonds, notes, or other obligations of this state, or those for which the faith and credit of this state are pledged for the payment of principal and interest.

d) 1. Bonds, notes, or other obligations of a local government of this state, including, but not limited to, any of the following:

   A. A county.
   B. A city.
   C. A city and county.
   D. A metropolitan water district.
   E. A water district.
   F. A water storage district.
   G. An irrigation district.
   H. A municipal utility district.
   I. A school district.

   2. Bonds, notes, or other obligations eligible for investment pursuant to this subdivision shall be within the top three ratings of a nationally recognized statistical rating organization.

e) Bonds, debentures, or other obligations of any of the following:

   1. Issued by federal land banks or federal intermediate credit banks established under the Federal Farm Loan Act, as amended (12 U.S.C. Sec. 2001 et seq.).
   2. Issued by the Central Bank for Cooperatives and banks for cooperatives established under the Farm Credit Act of 1933, as amended (12 U.S.C. Sec. 2001 et seq.).
   3. The Federal Home Loan Bank established under the Federal Home Loan Bank Act (12 U.S.C. Sec. 1421 et seq.).
   4. The Federal National Mortgage Association established under the National Housing Act, as amended (12U.S.C. Sec. 1701 et seq.).
   5. The Federal Home Loan Mortgage Corporation.
   6. Issued by the Tennessee Valley Authority under the Tennessee Valley Authority Act, as amended (16 U.S.C. Sec. 831 et seq.).
   7. Guaranteed by the Commodity Credit Corporation for the export of California agricultural products under the Commodity Credit Corporation Charter Act, as amended (15 U.S.C. Sec. 714 et seq.).

RVK

# Pooled Money Investment Account (PMIA) Statutes

*(Continued)*

**California Government Code Section 16430**

f) Bonds, notes, warrants, and other securities not in default that are the direct obligations of the government of a foreign country that the International Monetary Fund lists as an advanced economy and for which the full faith and credit of that country has been pledged for the payment of principal and interest, if the securities are rated investment grade or its equivalent, or better, by a nationally recognized statistical rating organization. Securities eligible for investment pursuant to this subdivision shall satisfy all of the following:

1. Be United States dollar denominated with a maximum maturity of five years or less, and eligible for purchase and sale within the United States.
2. The combined par value of all of the investments authorized by this subdivision do not exceed 1 percent of the total par value of Pooled Money Investment Account assets at the time of purchase.
3. The government of the foreign country issuing the securities submits to the jurisdiction of a federal or state court in the United States when disputes arise related to the investments.

g) 1. Commercial paper of "prime" quality as defined by a nationally recognized statistical rating organization that rates these securities, if the commercial paper is issued by a federally or state-chartered bank or a state-licensed branch of a foreign bank, corporation, trust, or limited liability company that is approved by the Pooled Money Investment Board as meeting the conditions specified in either subparagraph (A) or subparagraph (B):

   - A. Both of the following conditions:
     - i. Organized and operating within the United States.
     - ii. Having total assets in excess of five hundred million dollars ($500,000,000).
   - B. Both of the following conditions:
     - i. Organized within the United States as a federally or state-chartered bank or a state-licensed branch of a foreign bank, special purpose corporation, trust, or limited liability company.
     - ii. Having programwide credit enhancements including, but not limited to, overcollateralization, letters of credit, or surety bond.

2. A purchase of eligible commercial paper shall not do any of the following:
   - A. Exceed 270 days maturity.
   - B. Represent more than 10 percent of the outstanding paper of an issuing federally or state-chartered bank or a state-licensed branch of a foreign bank, corporation, trust, or limited liability company.
   - C. Exceed 30 percent of the resources of an investment program.
3. At the request of the Pooled Money Investment Board, an investment made pursuant to this subdivision shall be secured by the issuer by depositing with the Treasurer securities authorized by Section 53651 of a market value at least 10 percent in excess of the amount of the state's investment.

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# Pooled Money Investment Account (PMIA) Statutes

*(Continued)*

**California Government Code Section 16430**

h) Bills of exchange or time drafts drawn on and accepted by a commercial bank, otherwise known as banker's acceptances, that are eligible for purchase by the Federal Reserve System.

i) Negotiable certificates of deposits issued by a federally or state-chartered bank or savings and loan association, a state-licensed branch of a foreign bank, or a federally or state-chartered credit union. For the purposes of this section, negotiable certificates of deposits are not subject to Chapter 4 (commencing with Section 16500) and Chapter 4.5 (commencing with Section 16600).

j) The portion of bank loans and obligations guaranteed by the United States Small Business Administration or the United States Farmers Home Administration.

k) Bank loans and obligations guaranteed by the Export-Import Bank of the United States.

l) Student loan notes insured under the Guaranteed Student Loan Program established pursuant to the Higher Education Act of 1965, as amended (20 U.S.C. Sec. 1001 et seq.) and eligible for resale to the Student Loan Marketing Association established pursuant to Section 133 of the Education Amendments of 1972, as amended (20U.S.C. Sec. 1087-2).

m) Obligations issued, assumed, or guaranteed by the International Bank for Reconstruction and Development, the Inter-American Development Bank, the Asian Development Bank, the African Development Bank, the International Finance Corporation, the Government Development Bank for Puerto Rico, the European Bank for Reconstruction and Development, or the European Investment Bank.

n) Bonds, debentures, and notes issued by corporations organized and operating within the United States. Securities eligible for investment pursuant to this subdivision shall be within the top three ratings of a nationally recognized statistical rating organization.

o) Negotiable Order of Withdrawal Accounts (NOW Accounts), invested in accordance with Chapter 4 (commencing with Section 16500).

p) Shares of any money market mutual fund subject to registration by, and under the regulatory authority of, the United States Securities and Exchange Commission, provided that all of the following conditions are met:

1. The money market mutual fund invests in securities and obligations described in one or more of the following: subdivision (a), (b), or (e) of this section or repurchase agreements or reverse repurchase agreements described in Section 16480.4.
2. The financial institution issuing shares of the money market mutual fund has at least five years of experience investing in the types of securities and obligations being purchased by the state and has assets undermanagement in the money market mutual fund in excess of ten billion dollars ($10,000,000,000).
3. The money market mutual fund has attained the highest ranking or the highest letter and numerical rating provided by not less than two nationally recognized statistical rating organizations.
4. The financial institution does not impose a commission on the purchase or sale of fund shares by the state.
5. The state does not purchase more than 10 percent of a money market mutual fund's total assets.
6. The state does not invest more than 10 percent of the Pooled Money Investment Account's funds in any single money market mutual fund meeting the requirements of this subdivision.

RVK

# Pooled Money Investment Account (PMIA) Statutes

*(Continued)*

**California Government Code Section 16480.4**

1. Amounts available for investment under this article may be invested and reinvested by the State Treasurer in any securities described in Sections 16430 of this code or in loans to the General Fund as provided in Section 16310 of this code. Such securities may be sold by the State Treasurer or exchanged by him for other securities of the kind authorized to be purchased hereunder, if, in his discretion, such sale or exchange appears to be in the best interests of the state. The State Treasurer may enter into repurchase agreements or reverse repurchase agreements of any securities described in Section 16430.
2. The State Treasurer may hire or engage the services of an investment analyst to assist in such investment decisions.
3. For purposes of this section, the term “repurchase agreement” means a purchase of securities by the State Treasurer pursuant to an agreement by which the seller will repurchase such securities on or before a specified date and for a specified amount.
4. For purposes of this section, the term “reverse repurchase agreement” means a sale of securities by the State Treasurer pursuant to an agreement by which the State Treasurer will repurchase such securities on or before a specified date and for a specified amount.

# Pooled Money Investment Account (PMIA) Authorized Investments

| Investment Type | Maximum Maturity | Maximum % of Portfolio | Maximum Per Name | Maximum Per Maturity |
|---|---|---|---|---|
| Agencies (Federal and Supranational) | 5 years | None | None | None |
| Bankers Acceptances (Domestic and Foreign) | 180 days | None | None | None |
| Certificates of Deposits | 5 years | None | None | None |
| Collateralized Time Deposits | 1 year | None | (1) | None |
| Commercial Paper | 270 days | 30% | 10% | None |
| Corporate Bonds/Notes | 5 years | None | None | None |
| Foreign Government Bonds/Notes | 5 years | 1% | None | None |
| Money Market Mutual Funds | Open ended | 10% | 10% | None |
| Negotiable Order of Withdrawal (NOW) Accounts | Open ended | 5% | (3) | None |
| Repurchases (RP) and Reverse Repurchases (RRP) | 1 year | (2) | None | None |
| U.S. Treasury Securities | 5 years | None | None | None |

(1) Shall not exceed the net worth of the institution or an amount considered prudent; whichever is less.
(2) RRP is limited to 10% of the current portfolio.
(3) Shall not exceed the net worth of the institution.

Source: PMIA Investment Policy, January 1, 2024.

RVK