



Revised Scholarship Funding Projection Model for LIFE, HOPE and Palmetto Fellows Scholarships

As of January 2024

Prior Approach

Previously, the CHE used a Compound Growth Rate method to project scholarship needs for the Palmetto Fellows, HOPE, and LIFE Scholarship programs. This approach calculated the average annual growth rate since the onset of the scholarships. Because scholarships historically exhibited a growing trend, this method worked generally well for forecasting purposes. However, beginning in Academic Year 2019-20, COVID-19 adversely affected enrollment. As a result, the previous model began over-projecting scholarship needs.

In October 2022, the CHE discovered that this historical projection model was not working accurately for its scholarship programs. As a result, CHE adjusted its projections for fiscal year 2023-24 by using a compound annual growth rate based on the previous five years rather than the life of the scholarship programs and requested \$10,000,000 less for the LIFE Scholarship program, which had the largest carryforward balance of the three scholarship programs.

Updated Model for FY 2024-25

The new model is based on an agglomeration of seven statistical methods, which are either: historical or trend-based. The four historical methods include: Previous Year Value, Annual Growth Rate, 3-Year Moving Average, and 3-Year Weighted Average Growth Rate. The two trend-based methods include: 3-Year Smoothed Growth Rate and Ordinary Least Squares (OLS). Finally, there is a seventh method that builds on the six approaches mentioned above, which calculates the weighted average of the historical and trend methods and is intended to smooth the forecast error. All models use actual expenditure data for each of the scholarship programs, starting from 2007.

Each of the seven methods compare forecasted need to actual expenditures by fiscal year for each of the scholarship programs by calculating a Root Mean Squared Error (RMSE) that measures the forecast error. Staff then standardize the RMSE for each method to determine the most accurate method when comparing forecasted needs with actual needs.

Because the new model uses seven different methods, the model is dynamic in that a different method may be chosen each year based on updated data. This should provide more flexibility in the future by providing additional forecasting accuracy as scholarship trends change.



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