

MEMORANDUM

From: Katrina Spencer, Associate Vice President of Finance and Budget Director
To: University of Chicago Unit Finance Leaders
Date: March 26, 2018





Subject: FY18 Budget Control Charts

I. Purpose

The purpose of the Budget Control Charts is to provide the University of Chicago budget and financial leadership and management teams with a tool to assist them in better understanding actual revenues and expenditures against budget estimates on a monthly basis, to identify possible budget over/under runs based on year-to-date information and historical performance, and to improve end-of-year forecasting processes. Ultimately, we plan to provide Control Charts to units for all major budget categories. However, due to the shift in FY18 from OBS to the SBR budget reporting structure and the Delphi re-implementation that is currently in process, we are not able to provide Control Charts for all categories at this time. Given these constraints, we have created a set of four (4) Control Charts to provide units with critical insight into actual performance relative to budget estimates and to assist decision making and planning for the remainder of the FY18 fiscal year. The budget categories included in the Control Charts are (1) Net Tuition, (2) Other Revenue, (3) Compensation, and (4) Other Expense. Detailed definitions and explanation of the methodology used in building the Control Charts is included below for reference. If you have any questions about Control Charts for your unit or the methodology used to develop them, please contact your Budget Analyst or email the Budget Office at budgetoffice@uchicago.edu.

II. Control Chart Explanation and Methodology

The Control Charts provide a tool for the units to monitor revenues and expenditures throughout the year and to determine if corrective action is necessary in order to meet end-of-year budget targets. In the example provided (see in **Figure 1** on the following page), actual compensation expenditures to date have been plotted against the budget estimates from the unit's original FY18 Budget submission. The graph legend and an explanation of the Control Chart plotted elements are provided below for reference.

| | |
|--|--|
|  FY18 Budget | Original FY18 Budget submitted for this category of revenues or expenses |
|  FY18 Actual | Plot of monthly actuals for this category of revenues or expenses as of the last monthly forecast period |
|  FY18 Projected | Projection for the remainder of the year that was calculated by adding the most recent actual-to-budget variance measurement (as of the last monthly forecast period) to the remaining monthly budget estimates. |
|  FY18 Forecast | The unit's most recently submitted FY18 forecast for this Control Chart category |

In addition to providing a plot of actual expenditures or revenues vs. budget estimates, we have also included a confidence band around the budget line noted in the graph as the ‘Upper Bound’ and ‘Lower Bound’. These confidence bands were developed by identifying the maximum and minimum actual monthly values from the previous 5 years of historical data (FY13 – FY17) in each Control Chart category, adjusted (inflated) to the most recent year Budget \$. The confidence bands are intended to serve as ‘guard rails’ to help units identify when expenditures or revenues are trending significantly away from planned budget and to serve as an early warning sign that corrective action may be needed in order to meet end-of-year targets.

III. How to Read and Interpret the Control Charts

In the example Control Chart provided below in **Figure 1**, actuals vs. budget have been plotted for a unit’s Other Expense total as of February 2018. In this example, actuals were tracking closely to budget estimates early in the year and did not deviate significantly or go outside the confidence bound until November. This trend continued through February and the ‘FY18 Projected’ as of February shows that the unit is expected to finish almost \$1 million below target in this category by end-of-year. The unit’s FY18 Forecast as of February is somewhat closer to target than the projection, so the unit’s budget analyst would want to better understand planned expenditures in this category through the end of the year and why the unit is forecasting a correction that will bring it closer to meeting its original target by the end-of-year.

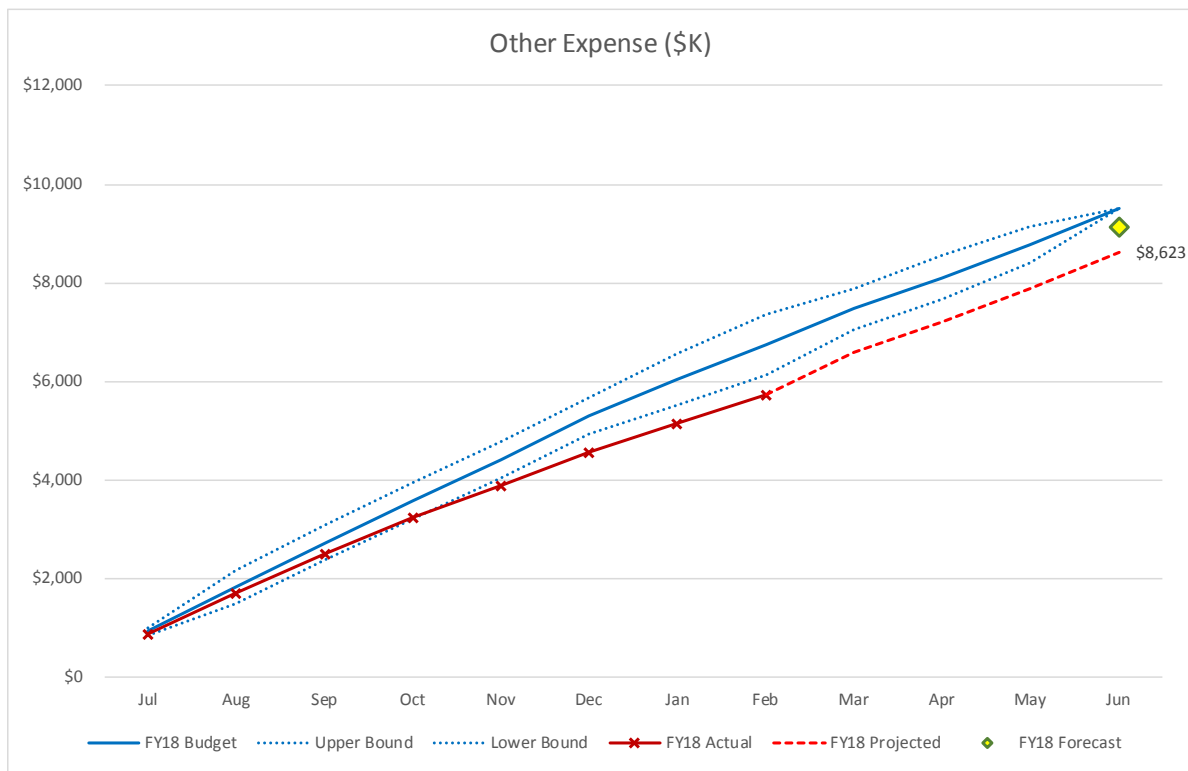


Figure 1: Example Control Chart A

In the second example provided below in **Figure 2**, actuals vs. budget have been plotted for the same category, ‘Other Expense’, but in this example actuals deviated significantly from budget in November and December. In this example the projection is that the unit will exceed budget for ‘Other Expense’ by more than \$1 million. In addition, the unit’s most recent forecast even further exceeds the projection by almost \$500 thousand. This example illustrates the impact of a significant unexpected change in planned expenditures and corrective action may be necessary such as closely monitoring and reducing expenditures through the end of the fiscal year or delaying projects or other work to the next fiscal year in order to ensure that the unit is able to meet its target by end-of-year.

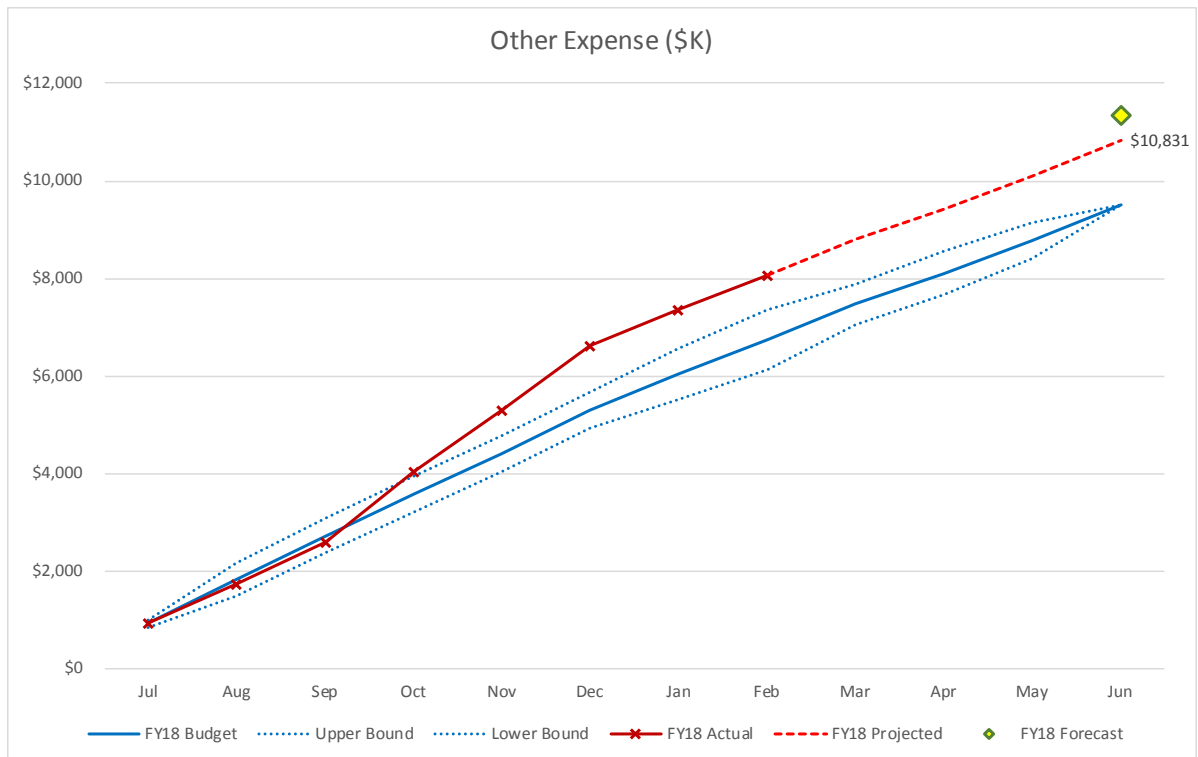


Figure 2: Example Control Chart B

IV. How the Control Charts will be Used

The Control Charts can be used by unit financial leadership to identify potential over/under runs in actual revenue or expenditure rates relative to budget and to identify significant variances that may lead to units missing their budget targets by the end of the year. In such cases, the unit’s Budget Analyst will address these variances and will work with unit budget and financial leadership to ensure that these changes are reflected in the end-of-year forecasts. Units should use the Control Charts as a tool to provide an early warning that actual spending trends or revenue accruals may



prevent the unit from meeting its budget target at end-of-year or that a significant change has occurred that warrants requires leadership attention to mitigate or resolve.

V. Control Chart Definitions and Data Sources

| Chart Term | Definition | Data Source |
|---------------------|---|---|
| Net Tuition (\$K) | Gross tuition adjusted for unrestricted financial aid. Tuition allocation is excluded | Actuals revenues from Delphi as of most recent end of month close |
| Other Revenue (\$K) | Auxiliary revenue and other revenue | Actuals revenues from Delphi as of most recent end of month close |
| Compensation (\$K) | Total unrestricted and restricted compensation | Actuals expense from Delphi as of most recent end of month close |
| Other Expense (\$K) | All other operating expense, excluding transfers | Actuals expense from Delphi as of most recent end of month close |
| FY18 Budget | FY18 budget amounts by month from unit budgets entered into Delphi | FY18 Unit Budget of Record in Delphi |
| FY18 Actual | FY18 actual amount expended by month within each category | FY18 actual revenues or expenses from Delphi as of most recent end of month close |
| FY18 Upper Bound | Historical (FY13 – FY17) maximum actual in the given month per category, adjusted for current year Budget \$ | Historical actuals from Delphi as of July 31, 2017 |
| FY18 Lower Bound | Historical (FY13 – FY17) minimum actual in the given month per category, adjusted for current year Budget \$ | Historical actuals from Delphi as of July 31, 2017 |
| FY18 Projected | Projected budget expenditures for the remainder of the year equal to future month budget estimates (from unit Budget of Record) plus the last variance measurement (actual – budget) as of the most recent end of month close | Budget Office Control Chart model |
| FY18 Forecast | Most recent month forecast provided by the units during the monthly unit forecast cycle | Unit Monthly forecast as of most recent end of month close |