Budget Ratios for Mathematics

% Group Budget/% Group IU

% Group Budget/% Group Acad FTE

% Group Acad FTE/% Group IU

Group = LAS, the College of Liberal Arts and Sciences. IU-instructional unit (each student in a course worth 3 credit hours generates 3 IUs, etc). The departmental "Budget" in these charts is the State budget, which omits Nonrecurring amounts (see below).
Comment: The Department of Mathematics has experienced a prolonged deterioration in its budget situation relative to other units in the College, over the past decade. See the next chart.

Budget Ratio for Main Units in LAS
Comment: A budget ratio of 0.9 might be considered average, since some fraction of the College budget goes on centralized expenses and administration. Note that a few units, such as the School of Chemical Sciences, generate large amounts of grant overhead for the College. It is reasonable to expect those units to have a higher budget ratio in the chart above, since they do proportionately less teaching. A global analysis of the income and expenditure associated with each unit, and of space and utility costs, is beyond the scope of this dashboard.

**Budget Allocated per Dollar of Revenue Generated**

![Bar chart showing budget allocated per $ of revenue generated (FY2016)]

**Surplus Generated**
“Revenue generated” refers to tuition money and grant overhead. It ignores state appropriation and the “direct cost” part of grant income. Tuition dollars are assigned at $229/IU and $7288/major.

The “revenue generated” is money collected by campus; it does not indicate how much money LAS gets from campus. Thus the absolute numbers in the charts are not meaningful in the current budget system. The numbers are certainly meaningful in a relative sense – they show the relative funding levels and the relative financial contributions by units to campus, under a reasonable model for attribution of tuition revenue by major and IU.

Source: based on College of LAS budget model spreadsheets.
Note. The School of Molecular and Cellular Biology (MCB) and the School of Integrative Biology (SIB) are omitted from the charts, due to issues with the data from LAS (the difficulty is to combine the school-level budget and revenue figures with department-level figures).

**TA Budget and Expenditure**

Source: TA budget from Campus Profile, Division of Management Information, University of Illinois; select "Department of Mathematics", lines 2130 (click there to obtain data); TA expenditure from Department of Mathematics

Comment: The Department of Mathematics will spend about $1.0m more on TAs this year than it receives from the College for this purpose.

**Graduate Tuition Generated by Mathematics**

Source: Campus Profile, Division of Management Information, University of Illinois; select "Department of Mathematics", line 7200.

Comment: The Department of Mathematics began receiving 26.4% of Net Graduate Tuition for the first time in FY2017. Before that year, the Department received nothing.

The formula is as follows: 10% goes to campus, 2% goes to cover the campus shortfall from the Illinois Student Assistance Commission (ISAC), 61.6% goes to LAS, and the remaining 26.4% comes to the Mathematics Department.

That is, the College keeps 70% of what it receives from campus, and passes on 30% to the Mathematics Department.

Incidentally, the only other units in the College that attract substantial numbers of tuition-paying graduate students are Economics and Statistics.
Teaching Load, Number of Majors, and Faculty Strength

Source: Campus Profile, Division of Management Information, University of Illinois; select "Department of Mathematics", lines 5200, 4100, 1030, and 1020-1030.

Comment: the teaching workload of the Department has increased substantially over the past decade. The number of non-tenure track faculty (including postdocs who teach) has increased modestly.
Budget - Income

The Mathematics Department receives income in two main pieces. (Note: the data below excludes Netmath income and expenditure.)

<table>
<thead>
<tr>
<th>FY2018 (year ending June 30, 2018)</th>
<th>Income - State budget</th>
<th>Projected Expenditure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Academic salaries (including Merit)</td>
<td>$9.46m</td>
<td>$9.88m</td>
</tr>
<tr>
<td>TA salaries (including Merit)</td>
<td>$1.47m</td>
<td>$2.45m</td>
</tr>
<tr>
<td>Staff salaries</td>
<td>$0.45m</td>
<td>$0.44m</td>
</tr>
<tr>
<td>Wages</td>
<td>$0.03m</td>
<td>$0.09m</td>
</tr>
<tr>
<td>Equipment, expenses, corrections</td>
<td>$0.05m</td>
<td>$0.07m</td>
</tr>
<tr>
<td><strong>SUBTOTAL</strong></td>
<td><strong>$11.45m</strong></td>
<td><strong>$12.93m</strong></td>
</tr>
<tr>
<td>FY2017 amounts are shown below</td>
<td>Income - Nonrecurring budget</td>
<td></td>
</tr>
<tr>
<td>Differential tuition from Math-CS students</td>
<td>$0.82m</td>
<td></td>
</tr>
<tr>
<td>Misc. additions and subtractions (dual career, etc.)</td>
<td>$0.08m</td>
<td></td>
</tr>
<tr>
<td>Net graduate tuition (26.4% share)</td>
<td>$0.28m</td>
<td></td>
</tr>
<tr>
<td><strong>SUBTOTAL</strong></td>
<td><strong>$1.18m approx.</strong></td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>$12.63m approx.</strong></td>
<td></td>
</tr>
</tbody>
</table>

**Source:** The State budget figures are taken from the Campus Profile, Division of Management Information, University of Illinois; select “Department of Mathematics”, line 2000. The Nonrecurring budget figures are from the Department of Mathematics. The Projected expenditure is based on data from the Department of Mathematics.

**Comment:** The State budget is the amount shown in the Campus Profile line 2000, except with the Netmath amounts removed. The State budget includes allocations for faculty, staff, and TAs. The Department spends about $0.35m more on academic salaries and $1.0 million more on TA stipends than is provided by the State budget.

**Comment:** The nonrecurring amounts vary each year. The amounts for FY2018 will be known only at the end of the financial year. Net graduate tuition is distributed as follows: 10% to campus, 2% to cover campus shortfall from Illinois Student Assistance Commission (ISAC), 61.6% to LAS, and the remaining 26.4% to the Mathematics Department. (That is, the College keeps 70% of what it receives from campus, and passes on 30% to the Mathematics Department.)

The department uses nonrecurring income to cover overspending of the State budget.

## Budget - Surplus/Deficit

![Mathematics Department Surplus/Deficit](image)

**Source:** Department of Mathematics
Comment: I have made certain adjustments to the deficit numbers recorded in university accounts, in order to better indicate the underlying operating condition of the Department. Specifically, the deficit for FY2016 has been increased by $0.19m and the deficit for FY2017 reduced accordingly, in order to better reflect a Netmath summer tuition pass-through that is attributable to FY2016 but which occurred in FY2017. The deficit for FY2017 has also been reduced by the amount of Net Graduate Tuition received for FY2017, even though that revenue was not received until FY2018.

The deficit for FY2018 is a projection as of December 2017. Projections are subject to change due to Nonrecurring budget items. The projection given here for FY2018 differs from the Department of Mathematics’ projection, which uses somewhat different estimates for Nonrecurring income, and does not make the adjustments mentioned above. Any projected deficit should be taken as a rough estimate only. A change of $0.2m in the eventual deficit would not be unusual.

**Other Sources of Income**

Grant income and expenditures are not counted in the tables above.

Also not counted is Indirect Cost Recovery (ICR): $0.2m approx.

Comment: ICR is the percentage of overhead charges on grants that is returned to the Department. This money is used to pay for start-up funds for new faculty, and other such expenses.