

SHEF Technical Paper D

Measures, Methods, and Analytical Tools

Primary SHEF Measures

To assemble the annual SHEF report, SHEEO collects data on all state and local revenues used to support higher education, including revenues from taxes, lottery receipts, royalty revenue, and state-funded endowments. It also identifies the major purposes for which these public revenues are provided, including general institutional operating expenses, student financial assistance, and support for centrally-funded research, medical education, and extension programs. Analysis of these data yields the following key indicators:

- ◆ **State and Local Support** consists of state tax appropriations and local tax support plus additional nontax funds (e.g., lottery revenue) that support or benefit higher education, and funds appropriated to other state entities for specific higher education expenditures or benefits (e.g., employee fringe benefits disbursed by the state treasurer). State and local support for 2009–2012 also includes federal American Reinvestment and Recovery Act (ARRA) revenue provided to stabilize these sources of revenue for higher education.
- ◆ **Educational Appropriations** are that part of state and local support available for public higher education operating expenses, defined to exclude spending for research, agricultural, and medical education, as well as support for independent institutions or students attending them. Since funding for medical education and other major non-instructional purposes varies substantially across states, excluding these funding components helps to improve the comparability of state-level data on a per-student basis.
- ◆ **Net Tuition Revenue** is the gross amount of tuition and fees, less state and institutional financial aid, tuition waivers or discounts, and medical student tuition and fees. This is a measure of the resources available from tuition and fees to support instruction and related operations at public higher education institutions and includes revenue from in-state and out-of-state students as well as undergraduate and graduate students. Net tuition revenue generally reflects the share of instructional support received from students and their families, although it is not the same as and does not take into account many factors that need to be considered in analyzing the “net price” students pay for higher education.¹
- ◆ **Total Educational Revenue** is the sum of educational appropriations and net tuition revenue excluding any tuition revenue used for capital and debt service. It measures the amount of revenue available to public institutions to support instruction (excluding medical students). Very few public institutions have significant non-restricted revenue from gifts and endowments to support instruction. In some states, a portion of the net tuition revenue is used to fund capital debt service and similar non-operational activities. These sums are excluded from calculations used to determine total educational revenue.

¹ SHEF does not provide a measure of “net price,” a term that generally refers to the cost of attending college after deducting assistance provided by federal, state, and institutional grants. SHEF does not deduct federal grant assistance (primarily from Pell Grants) from gross tuition revenue, since these are non-state funds that substitute, at least in part, for non-tuition costs borne by students. Non-tuition costs (room and board, transportation, books, and incidentals) typically total \$10,000 or more annually in addition to tuition costs. This requires students with a low expected family contribution (most Pell recipients) to augment federal grants with a substantial contribution from part-time work or loans, even at comparatively low-tuition public institutions. In addition, the availability of federal tuition tax credits since 1999 has helped reduce “net price” for middle-income and lower-middle-income students. While these tax credits have no impact on the net tuition revenue received by institutions, they do reduce the “net price” paid by students. SHEF’s net tuition revenue statistic is not a measure of “net price,” but a measure of the revenue that institutions receive from tuition. It is a straightforward measure of the proportion of public institution instructional costs borne by students and families. Measures of net price for the student need to include non-tuition costs and all forms of aid.

- ◆ **Full-Time Equivalent Enrollment (FTE)** is a measure of enrollment equal to one student enrolled full time for one academic year, calculated from the aggregate number of enrolled credit hours (including summer session enrollments). SHEF excludes most non-credit or non-degree program enrollments; medical school enrollments also are excluded for the reasons mentioned above. The use of FTE enrollment reduces multiple types of enrollment to a single measure in order to compare changes in total enrollment across states and sectors, and to provide a straightforward method for analyzing revenue on a per-student basis.

Adjustments for Comparability

SHEF's analytic methods are designed to make basic data about higher education finance as comparable as possible across states and over time. Toward that end, financial indicators are provided on a per-student basis (using FTE enrollment as the denominator), and the State Higher Education Finance (SHEF) report employs three adjustments to the "raw data" provided by states:

- ◆ **Cost of Living Adjustment (COLI)** to account for cost of living differences among the states;
- ◆ **Enrollment Mix Index (EMI)** to adjust for differences in the mix of enrollment and costs among types of institutions with different costs across the states; and
- ◆ **Higher Education Cost Adjustment (HECA)** to adjust for inflation over time.

Technical Papers A and B describe these adjustments in some detail. Tables provided in these technical papers show the actual effects of the COLI and EMI adjustments on the data provided by individual states, as well as the HECA adjustment from current to constant dollars (inflation-adjusted dollar values that are made annually to reflect inflation).